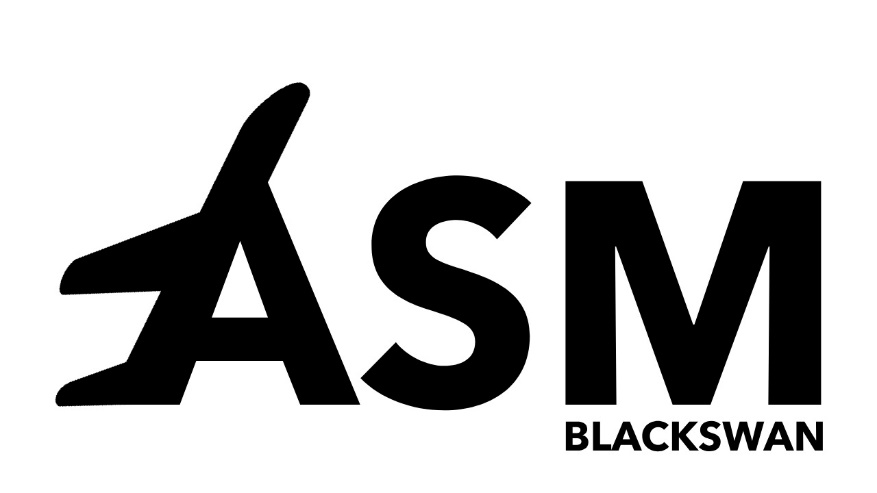


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Software Engineering Section 11

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**Table of contents**

**Preface ………………………………………………………………………………………………………………………………… 3**

**Introduction…………………………………………………………………………………………………………………………. 4**

**Glossary ………………………………………………………………………………………………………………………………. 5**

**Non-technical ……………………………………………………………………………………………………………………….. 5**

**Technical ……………………………………………………………………………………………………………………………….. 6**

**User Requirements ……………………………………………………………………………………………………………. 10**

**System Architecture …………………………………………………………………………………………………………… 11**

**Layered Architecture ……………………………………………………………………………………………… 12**

**Client-Server ………………………………………………………………………………………………………….. 15**

**System Requirements ………………………………………………………………………………………………………… 16**

**Function requirements ………………………………………………………………………………………….. 16**

**Non-functional requirements ………………………………………………………………………………… 18**

**System Model ……………………………………………………………………………………………………………………. 20**

**Subsystems ……………………………………………………………………………………………………………………….. 22**

**System Evolution ……………………………………………………………………………………………………………….. 24**

**Appendix …………………………………………………………………………………………………………………………… 25**

**Hardware requirements …………………………………………………………………………………………. 25**

**Database requirements …………………………………………………………………………………………. 26**

**Logical Data Organization ………………………………………………………………………………………. 27**

**Implementation …………………………………………………………………………………………………….. 33**

**Test Cases ………………………………………………………………………………………………………………………….. 253**

**User requirements ………………………………………………………………………………………………... 253**

**Functional requirements ……………………………………………………………………………………….. 271**

**Non-Functional requirements ………………………………………………………………………………… 291**

**Preface**

**Initial Requirements Document**

*This document is intended for airport administrators, operations managers, technical staff and other personnel involved in the operation of the airport, as well as software engineers, project managers, and stakeholders involved in the development and maintenance of the Flight Information Display System.*

**Version 1.0 (15 Oct. 23) –** The first version of the Airport Management System requirements document, made to pinpoint the core functionalities, requirements, and system architecture.

**Introduction**

In today’s interconnected world, the aviation industry plays a vital role in global travel. Sharing flight information in an accurate and timely manner is essential to guide passengers and monitor flights. This is where our Airport Information System (AIS), named AeroSync Manager (ASM), comes into play to manage all the information related to daily flight operations and schedule, dining and shopping options, deals, parking, Wi-Fi, currency value, etc…

The system requested automates several important functions. These include flight search, where users can request a flight’s information. The flight’s information includes the schedule, details, and location. Additionally, the system provides details about the airport’s facilities. This enhances passenger experience, by helping users be well-informed as well as navigate easier within the airport.

ASM is designed for effective integration with other systems such as: Air Traffic Control (ACT) for more precise depiction of flight movement, Airline Reservation Systems to provide updates on flights, Landside/Airside Operations to manage the allocation of gates, terminals and other airport resources, and security systems.

ASM aligns with strategic objectives by offering a comprehensive and user-platform that enhances the passenger experience to their convenience, thereby increasing customer satisfaction and loyalty. Furthermore, the system’s integration with other systems enhances safety and security and contributes to the organization and management of the airport’s operations.

**Glossary**

**Non-technical**

1. Flight Information Display System (FIDS): a computer system used in airports to display flight information to passengers. (Wikipedia, <https://en.wikipedia.org/wiki/Flight_information_display_system>.
2. Air Traffic Controller (ACT): a service provided by ground-based air traffic controllers who direct aircraft on the ground and through a given section of controlled airspace, and can provide advisory services to aircraft in non-controlled airspace. (Wikipedia, <https://en.wikipedia.org/wiki/Air_traffic_control>
3. Landside Operations: Overseeing the terminals, concourses, roadways, and properties surrounding the airport. (Everglades University, <https://www.evergladesuniversity.edu/blog/common-airport-operations/>
4. Airside Operations: Overseeing the airfield, ramps, safety, and security of the airport. (Everglades University, <https://www.evergladesuniversity.edu/blog/common-airport-operations/>
5. Real-time information: Information that is delivered immediately after collection. There is no delay in the timeliness of the information provided. (Wikipedia, <https://en.wikipedia.org/wiki/Real-time_data>)
6. Data Exchange Protocols: A data exchange protocol describes the conditions, environment, and methods for ena- bling information to flow between computer systems. (Northwestern University Information Technology, <https://www.it.northwestern.edu/docs/ExchangeSharedResponsibilityData.pdf>)
7. Dropdown: A list of options that appears on a computer screen when you select an item with a computer mouse (Collins Dictionary, <https://www.collinsdictionary.com/dictionary/english/drop-down>)
8. GDPR: EU general data protection regulation (GDPR) is the strongest privacy and security law in the world. This regulation updated and modernized the principles of the 1995 data protection directive. (Consilium.Europa.eu, <https://www.consilium.europa.eu/en/policies/data-protection/data-protection-regulation>)
9. Flight Information Display System (FIDS) : a computer system used in airports to display flight information to passengers. (Wikipedia, <https://en.wikipedia.org/wiki/Flight_information_display_system>.
10. Aviation: activities surrounding mechanical [flight](https://en.wikipedia.org/wiki/Flight) and the [aircraft](https://en.wikipedia.org/wiki/Aircraft) industry.

<https://en.wikipedia.org/wiki/Aviation>

1. Air Navigation: piloting an aircraft from place to place without getting lost, not breaking the laws applying to aircraft, or endangering the safety of those on board or on the [ground](https://en.wikipedia.org/wiki/Earth).

https://en.wikipedia.org/wiki/Air\_navigation

1. Baggage Belt: a device, generally at an [airport](https://en.wikipedia.org/wiki/Airport), that delivers [checked luggage](https://en.wikipedia.org/wiki/Checked_luggage) to the passengers at the [baggage reclaim](https://en.wikipedia.org/wiki/Baggage_reclaim) area at their final destination.
2. UV Index: is an international standard measurement of the strength of the [sunburn](https://en.wikipedia.org/wiki/Sunburn)-producing [ultraviolet](https://en.wikipedia.org/wiki/Ultraviolet) (UV) [radiation](https://en.wikipedia.org/wiki/Radiation) at a particular place and time.

<https://en.wikipedia.org/wiki/Ultraviolet_index#:~:text=Article%20Talk,aimed%20at%20the%20general%20public>.

1. GDPR: EU general data protection regulation (GDPR) is the strongest privacy and security law in the world. This regulation updated and modernized the principles of the 1995 data protection directive. (Consilium.Europa.eu, <https://www.consilium.europa.eu/en/policies/data-protection/data-protection-regulation>)

**Technical**

1. User Interface (UI): The space where interactions between humans and machines occur. (Wikipedia, <https://en.wikipedia.org/wiki/User_interface>)
2. Scaling Vertically: The vertical scaling approach focuses on adding more resources or more processing power to a single machine. (MongoDB, <https://www.mongodb.com/basics/horizontal-vs-vertical-scaling>)
3. Backup: a copy of a file, etc. that can be used if the original is lost or damaged (Oxford, <https://www.oxfordlearnersdictionaries.com/definition/english/backup>)
4. Backup Server: A server that is in charge of reserving important data, files, folders, databases, and hard drives on a specialized on-premises or remote server/network. (Keka, <https://www.keka.com/glossary/backup-server>)
5. Disaster Recovery: The process of maintaining or reestablishing vital infrastructure and systems following a natural or human-induced disaster (Wikipedia, <https://en.wikipedia.org/wiki/Disaster_recovery>)
6. Encryption: The process of protecting information or data by using mathematical models to scramble it in such a way that only the parties who have the key to unscramble it can access it. (Google Cloud, <https://cloud.google.com/learn/what-is-encryption>)
7. AES256-GCM: AES is carried out with the key-length of 256-bit is suitable to perform at high speed of electronic applications in terms of security. (IOPscience, <https://iopscience.iop.org/article/10.1088/1742-6596/1019/1/012008/pdf>)
8. GCM is a mode of operation for symmetric-key cryptographic block ciphers which is widely adopted for its performance. (Wikipedia, <https://en.wikipedia.org/wiki/Galois/Counter_Mode>)
9. SHA-512: is a hashing algorithm used to convert text of any length into a fixed-size string. It is a novel hash function computed with eight 64-bit words. (Wikipedia, <https://en.wikipedia.org/wiki/SHA-2>)
10. ECDHE\_RSA: is a key agreement protocol that allows two parties, each having an elliptic-curve public–private key pair, to establish a shared secret over an insecure channel. The server's certificate must contain an RSA public key authorized for signing, and that the signature in the ServerKeyExchange message must be computed with the corresponding RSA private key (Wikipedia, <https://en.wikipedia.org/wiki/Elliptic-curve_Diffie%E2%80%93Hellman>)
11. TLS 1.3: the latest version of the TLS protocol. TLS, which is used by HTTPS and other network protocols for encryption, is the modern version of SSL. encrypts data sent over the Internet to ensure that eavesdroppers and hackers are unable to see what you transmit which is particularly useful for private and sensitive information. (Internet Society, <https://www.internetsociety.org/deploy360/tls/basics>)
12. Domain Name: A domain name refers to your website address. This is what users type in a browser's search bar to directly access your website. A domain name is unique and cannot be shared between different sites. (OVHcloud, <https://www.ovhcloud.com/en/domains/domain-name-definition>)
13. Dedicated server: A dedicated server is a type of Internet hosting in which the client leases an entire server not shared with anyone else. This is more flexible than shared hosting.

https://en.wikipedia.org/wiki/ Dedicated\_hosting\_service

1. SQL Database: a collection of highly structured tables, wherein each row reflects a data entity, and every column defines a specific information field. (SolarWinds, <https://www.solarwinds.com/resources/it-glossary/sql-database>)
2. SQL Queries: SQL queries are valid instructions that relational database management systems understand. (AWS, https://aws.amazon.com/what-is/sql)
3. Server-Side: Server-side refers to programs and operations that run on the server. (Wikipedia, <https://en.wikipedia.org/wiki/Server-side>)
4. DNS Resolution Service: The process of translating IP addresses to domain names (Webtrends, <https://kb.webtrends.com/articles/Question/What-is-DNS-Resolution-1365448116431>)
5. Global DNS: Global DNS is a service that helps you identify domain names used on the Internet with their actual access address. (Ncloud-docs, <https://guide.ncloud-docs.com/docs/en/globaldns-overview>)
6. Top-Level Domain Server: A DNS nameserver that keeps all the information for all domain names that share a common domain extension. (Thread Media, <https://threat.media/definition/what-is-a-tld-server>)
7. Authoritative DNS: The authoritative DNS server is the final holder of the IP of the domain you are looking for. It provides definitive answers to DNS queries, such as mail server IP address or web site IP address. <https://www.cloudns.net/blog/authoritative-dns-server>)
8. IP Address: The unique identifying number assigned to every device connected to the internet. (Fortinet, <https://www.fortinet.com/resources/cyberglossary/what-is-ip-address>)
9. HTTP: Hypertext Transfer Protocol; set of rules for the transfer of files over the World Wide Web. https://www.cloudflare.com/
10. HTTPS: Use of SSL to provide an extra layer of security for file transfer by encryption.

https://en.wikipedia.org/

1. CDN: (content delivery network), also called a content distribution network, is a group of geographically distributed and interconnected servers.

<https://www.techtarget.com/searchnetworking/definition/CDN-content-delivery-network#:~:text=A%20CDN%20(content%20delivery%20network,to%20speed%20up%20its%20delivery>.

1. Frontend and Backend: In software engineering, the terms front end and back end refer to the separation of concerns between the presentation layer (front end), and the data access layer (back end) of a piece of software, or the physical infrastructure or hardware (Source: <https://en.wikipedia.org/wiki/Front_and_back_ends>).
2. Error Handling: it is the process comprised of anticipation, detection and resolution of application errors, programming errors or communication errors. https://docs.swift.org/
3. Cloud computing: is a type of Internet-based computing that provides shared computer processing resources and data to computers and other devices on demand.

<https://en.wikipedia.org/wiki/Cloud_computing>.

1. Scalability: is the capability of a system, network, or process to handle a growing amount of work, or its potential to be enlarged in order to accommodate that growth (Source: https://en.wikipedia.org/ wiki/Scalability).
2. Cloud Storage: is a model of [computer data storage](https://en.wikipedia.org/wiki/Computer_data_storage) in which the [digital data](https://en.wikipedia.org/wiki/Digital_data) is stored in logical [pools](https://en.wikipedia.org/wiki/Pool_(computer_science)), said to be on "the cloud". https://cloud.google.com/storage
3. **Application programming interface(**API): is a way for two or more [computer programs](https://en.wikipedia.org/wiki/Computer_program) to communicate with each other.

<https://en.wikipedia.org/wiki/API>

1. Domain Registration: the process of acquiring a [domain name](https://en.wikipedia.org/wiki/Domain_name) from a domain name [registrar](https://en.wikipedia.org/wiki/Domain_name_registrar).

<https://en.wikipedia.org/wiki/Domain_registration>

1. Domain Name System Security Extensions(DNSSEC): are a suite of extension specifications by the [Internet Engineering Task Force](https://en.wikipedia.org/wiki/Internet_Engineering_Task_Force) (IETF) for securing data exchanged in the [Domain Name System](https://en.wikipedia.org/wiki/Domain_Name_System) (DNS) in [Internet Protocol](https://en.wikipedia.org/wiki/Internet_Protocol) (IP) networks.

<https://en.wikipedia.org/wiki/Domain_Name_System_Security_Extensions>

1. Chatbots: is a [software](https://en.wikipedia.org/wiki/Software_agent) application or web interface that aims to mimic human [conversation](https://en.wikipedia.org/wiki/Conversation) through text or voice interactions.

https://en.wikipedia.org/wiki/Chatbot

1. Data Exchange Protocols: A data exchange protocol describes the conditions, environment, and methods for ena- bling information to flow between computer systems.

<https://www.it.northwestern.edu/docs/ExchangeSharedResponsibilityData.pdf>

1. Dropdown: A list of options that appears on a computer screen when you select an item with a computer mouse (Collins Dictionary, <https://www.collinsdictionary.com/dictionary/english/drop-down>)
2. Server-Side: Server-side refers to programs and operations that run on the server.

<https://en.wikipedia.org/wiki/Server-side>

1. Authoritative DNS: The authoritative DNS server is the final holder of the IP of the domain you are looking for. It provides definitive answers to DNS queries, such as mail server IP address or web site IP address.

<https://www.cloudns.net/blog/authoritative-dns-server>

1. Top-Level Domain Server: A DNS nameserver that keeps all the information for all domain names that share a common domain extension.

<https://threat.media/definition/what-is-a-tld-server>

**User Requirements**

1. Shall have access to real-time flight information on all arrivals including the airline, flight number, origin country, scheduled time of arrival, terminal, and flight status (cancelled, delayed, arrived, confirmed)
2. Shall have access to real-time flight information on all departures including the airline, flight number, destination, scheduled time of departure, terminal, gate, check-in row/door and flight status (Gates open, boarding, last call, gates closed, departed, cancelled, delayed).
3. Shall be able to check real-time weather updates for the airport.
4. Shall be able to search for specific flights by flight number, airline, city, date, or timings.
5. Shall be able to follow and track specific flights, thereby receiving reminders and alerts on flight status and changes by email.
6. Shall be able to pick a language through the language selector to cater to international travellers and ensure accessibility of information.
7. Shall have access to in-flight information, when the user clicks on a specific flight, such as in-flight entertainment options, meal services.
8. Shall be able to browse the dining options, where they can check restaurants and their menus.
9. Shall be redirected to a page with all the shops upon clicking on the “Shopping” option, where they shall be able to create an account or log in into an existing one to browse through shops and items. They shall be able to save them in a wish list, view the stocks, and their prices.
10. Shall have access to a flight booking option that redirects them to Skyscanner upon clicking on “search”, where users shall insert the origin, destination, return or one way, depart, and return (if it is two-way).
11. Shall have access to a hotel booking option that redirects them to booking.com upon clicking on “search”, where users shall insert the country, city, or landmark, the check-in date, the check-out date, and the number of bedrooms, adults, and children.
12. Shall have access to a currency converter.
13. Shall be able to see the different deals and promotions within the airport in the “Deals For You” section.
14. Shall have access to a feedback button where they can rate the website up to 5 stars and leave comments.
15. Shall have access to real-time information on the availability of parking slots to assist travellers. They shall also be able to calculate the cost of renting a spot by providing the time interval of the rental.

**System Architecture**

Our system will be implemented via a website. ASM is fortified with dedicated servers, content delivery network, domain name, and domain name server.

**Domain name**

ASM website is accessible via the domain ASM-Airport.org, which will be registered, managed, and secured by our system operator. When you initiate an HTTPS request, ASM interface welcomes you with an organized, responsive layout. The domain name will be pointed to the IP of the dedicated server and the communication will be done via Domain Name Server (DNS).

**Content Delivery Network (CDN)**

To optimize the speed and reliability of the ASM website, our system implements a CDN which plays a pivotal role in ensuring that users, regardless of their geographic location, experience fast and uninterrupted access to the ASM interface.

It operates on a Global CDN framework, which consists of strategically placed edge servers accross multiple countries. This reduces latency for users accessing the ASM website from further locations than our primary server’s.

Through the Globsl CDN’s network of edge servers, ASM ensures that all static and dynamic content, including images, scripts, and data, is cached and stored in these server locations. This minimizes the physical distance that data must travel, leading to a reduction in loading times.

Furthermore, the Global CDN is essential for origin shielding. This means that the primary server is safeguarded from excessive traffic and potential distributed denial-of-service (DdoS) attacks. It efficiently takes in the incoming traffic and requests, thus ensuring the stabiltiy and availability of the ASM website during pressure and high traffic.

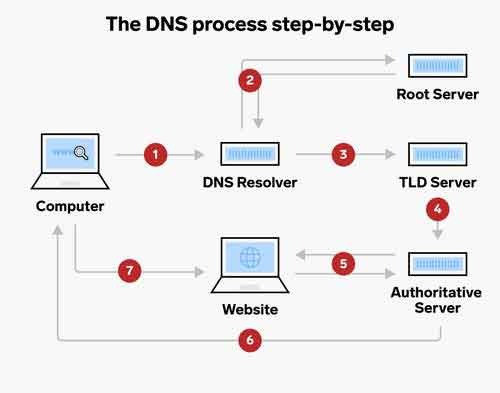
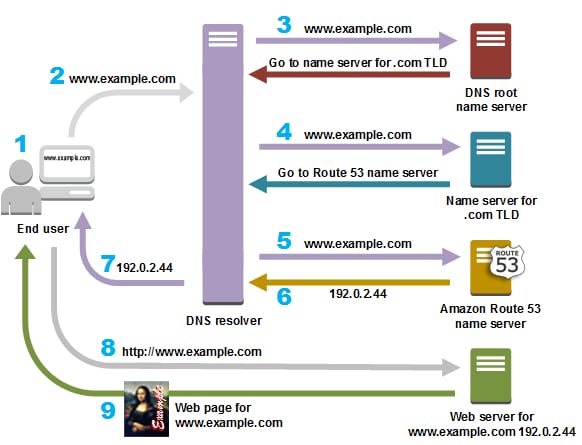
**Dedicated Server**

ASM will empower *ASM-Airport.ORG* with a powerful and dedicated server. ASM will guarantee a 99.9% uptime SLA for the server. While unforseen natural disasters might increase the potential downtime, ASM has a comprehensive disaster recovery plans to mitigate data loss and operational disruptions. These include thedeployment of an active-primary and passive secondary data center setup, enabling a seamless transition of data from the primary to the secondary center in case of outages.

**Domain Name Server (DNS)**

Our DNS server plays a critical role in manging domain names and mapping them to their respective IP addresses. It ensures that when users enter the ASM website, it promptly directs them to the correct web page.

Additionally, our DNS utilizes Anycast routing, a method designed to handle DNS queries from users around the world. This approach ensures load distribution among multiple servers that share the same IP address, which optimizes ASM website ’s performance and responsiveness.



Source: <https://www.holygamerz.com/en/what-is-a-dns-server-explained-easy> https://aws.amazon.com/route53/what-is-dns/

**A. Layered Architecture:**

The ASM’s System architecture will be approached using two patterns which are the Layered pattern and the client-server. The layered pattern is used to showcase the dependency of each layer on the other, this ensures an ease of layer replacement when updates are needed. The client server approach on the other hand is used for the very sole purpose of ensuring that the website along with the database are accessible across multiple devices simultaneously.

This approach consists of three layers which respectively are the presentation layer, application layer, and data layer.

**Presentation Layer**

The presentation layer for ASM is dedicated to delivering a user-friedly and visually appealing interface that ensures a seamless experience for all users, admins and visitors alike. ASM UI is designed to provide clear and concise access to real-time flght infromation, weather updates, and additional in-flight details.

We’ve used HTML, CSS, and JavaScript to create an interactive and responsive front-end, ensuring a consistent ecperience across different devices and web browsers.

ASM recognizes the diverse background of international travelers and offers multiple language options, including English, Arabic, Spanish, French Russiam, Mandarin, and Hindi. Users can select their preferred language for all display information, ensuring accessibility for a global audience.

Navigating ASM is designed to be an effortless experience for all users. They will be able to seamlessly and easily scroll through the website’s well-organized presentation to browse real-time flight infromation, shops, dining options and have quick access to the data they need. The data is presented in a clear and intuitive format, ensuring that you can easily find details about arrivals and departures. There shall be a switch button at the top of the page to change between arrival and departure information for a more user-friendly exprience.

ASM search feature allows users to search for specific flights using various parameters. Users simply have to scroll to the search section and input their criteria. ASM will promptly filter and display the relevant flight information.

When users click on a specific flight, they will be redirected to the flight’s page which includes information about in-flight entertainment options, meal services, and other amenities.

On that page, the clients will have the option to track and follow specific flights. This option can be enabled/disabled by the click of a button. Users will be able to have an overview of all the flights they’re tracking, whether it’s for themselves, or to go pick up family members and friends.

Additionally users shall be able to seamlessly explore the dining options with a click of the “dining” button at the top of the page. There they’ll be able to effortlessly browse through various restaurants within the airport, and check their menus with a click.

To enhance the shopping experience, a “shopping” button will be available next to the dining one. It will redirect the users to a page displaying all the available shops within the airport. Account creation or login functionality will be seamlessly integrated, enabling users to personalize their shopping experience. They can conveniently save desired items to a wish list, view the items’ stocks, and check prices.

At the bottom of the page, a box containing a flight and hotel booking option will be accessible which redirects users to skyscanner and booking.com respectively upon filling out the required information.

More details for user convenience will be offered in the website including the deals, the parking availability and rent price, feedback button, and currency converter.

**Application Layer**

This layer is the core engine of ASM, where the critical fuctionality and business logic are brought to life. This layer plays a pivotal role in ensuring the effecient and effective management of airport facilities and flight information, user interactions, and data processing.

The primary function of the application layer is to retreive and process flight infromation. It commuincates with the database to obtain real-time data about arrivals, departures, weather conditions, in-flight details, dining options, shopping and additional services. This ensures that the information presented to users on the presentation layer is always up-to-date and accurate.

The application layer handles all user interactions and requests. It processes actions such as tracking specific flights, sending reminders and alerts through email, and filtering flight information based on user search criteria. It also facilitates the seamless implementation of features like wish lists for shopping, flight and hotel bookings, currency conversion, and exclusive deals for users, as well as real-time information on parking availability and associated costs. It serves as the intermediary between the user interface and the data layer.

The application layer is responsible for managing multi-language support. Users can select their preferred language through the user interface, and the application layer ensures that all displayed information is presented in the chosen language.

Robust error handling and logging mechanisms are implemented in the application error. Any system errors or anomalies are captured and reporteed, allowing for timely resolution and system reliability

The application layer is designed with scalability in mind, allowing for seamless integration of additional features and services in the future. It follows a modular design where the modules can be developed, deployed and maintained independently. This future-readiness ensures that ASM can adapt and evolve to meet the changing needs of the aviation industry and travelers.

This application layer will be built using python (flask). AJAX serves as means of asynchronous communication between the static client side and server side code.

**Data layer**

**SQL Cloud Computing:**

ASM’s data layer incorporates a robust SQL cloud database hosted on a cloud platform. This database is fully managed, monitored, and secured to ensure data integrity and availability. Key features include:

* Automatic Backups: To safeguard against data loss or corruption, continuous backups (periodic and incremental) are performed to ensure data integrity, and in the event of data loss, recovery processes can quickly restore the system to a consistent state.
* Scalability: a cloud-based SQL database is designed to handle large volumes of flight information and is scalable to accomodate the increasing demands of the aviation industry. It can efficiently manage vast datasets while maintaining high performance.

The data layer of ASM plays a crucial role in storing and managing essential information that drives the entire system. It serves aas the repository for critical data necessary for the operation and delviery of real-time flight information to users.

The data layer securely stores sensitive information, inluding airport (shops, dining,...) and flight details, as well as user preferences and information (username and password).

A central component of the data layer is the Flight Information Catalog. This catalog contains comprehensive details on all flights, including airline, flight number, origin, destination, scheduled times, gate assignments, and current flight status. It also maintains records of historical flight data for analysis and reporting.

An important component is the user information Catalog that stores the users’ emails, usernames, and passwords as well as their rating of the website.

Another component is the Shops and Dining Catalogs. These catalogs contain comprehensive details on all restaurants and cafes details including the items and the menu, and the latter contains details about all of the shops and the products in them as well as the user’s wishlist.

The system’s data is securely stored and cloud infrastructure for increased reliability and accessibility. Cloud-based sotrage ensures that data is highly available and can be accesses from anywhere, enhancing the overall system’s resilience.

Access to sensitive data in the data layer is carefully controlled and authorized based on user roles and permissions. This helps ensure that only authorized users have access to specific data and functionality.

**Security Layer**

The Security Layer in ASM is dedicated to ensuring the confidentiality, integrity, and security of sensitive data and interactions within the system. While ASM does not require traditional username and password authentication, it still employs robust security measures to safeguard information and protect against potential threats.

**1. Transport Layer Security (TLS):**

Our system implements Transport Layer Security (TLS) to encrypt data during transmittions, ensuring the privacy of information exhanged between the user and the server. Additionally, this encryption protocol protects the confidentiality and integrity of data transferred between the application layer and the database, making it resistant to eavesdropping and data tampering. The SSL certificate will be periodically renewed before expiry date to ensure that user data is secure at all times.

**2. API Authentication:**

ASM utilizes secure application programming interfaces (APIs) for data retrieval from external sources, such as airline databases and weather services. These API’s require authentication and authorization to access data, ensuring that only authorized requests are processed.

**3. Private Domain Registration:**

Safeguarding the user email privacy is a top priority, particularly in the context of flight tracking and feedback, where user emails are essential for delivering updates and notifications, as well as for the shopping experience. Private Domain Registration ensures that domain ownership details, are not publicly accessed through WHOIS lookup. ASM proritizes data protection accross the platform.

**4. Domain Name System Security Extensions (DNSSEC):**

DNSSEC enhances the security and integrity of ASM by preventing potential “man-in-the-middle” attacks on DNS queries. This ensures the authenticity of DNS responses, protecting the system against cyber threats. Through it, ASM provides protection for web application traffic, and further strengthens the security measures in place.

**B. Client-server:**

ASM adopts a client-server architecture, providing users with access to the ASM website through their web browsers, facilitating seamless interaction with the graphical user interface on the client-side. The dedicated backend server undertakes the responsibilities of data processing, user interactions, and efficient communication with the database.

On the client-side, users can effortlessly navigate the ASM website, accessing real-time flight information, weather updates, shops, dining details, and additional features. The graphical user interface offers a user-friendly experience, ensuring clear presentation and easy interaction with the diverse functionalities available.

The backend server is designed to handle several tasks, including tracking specific flights, managing reminders and alerts, processing shopping wish lists, facilitating language selection, and overseeing flight and hotel bookings. It also integrates functions such as currency conversion, exclusive deals, and real-time parking information.

To guarantee data security and system integrity, the server implements robust security measures, including Transport Layer Security (TLS) and DNS Security Extensions (DNSSEC).

These measures work cohesively to safeguard user data privacy and ensure the reliability of the ASM platform.

The server also manages the content related to dining options, shopping catalogs, bookings interfaces, currency conversion tools, and promotional deals. This architecture not only secures the communication between users and the ASM system but also ensures the system’s adaptibility and responsiveness to the dynamic needs of the aviation industry and travelers.

**System Requirements**

**Functional requirements**

1. User account:
   1. ASM shall redirect the user to the login page if the user wants to track a flight or add an item to the wish list.
   2. ASM shall as for the user’s email only, if the user has an account it shall provide him with a magic link to access the home page.
   3. Else ASM shall redirect him to the signup page where he only has to fill in a username parameter.
   4. ASM shall provide the user with a logout option.
2. Arrival Information:
   1. ASM shall continuously retrieve and update real-time data about the flight’s airline, number, status, origin, schedule, and terminal.
   2. ASM shall display this information for the user.
3. Departure Information:
   1. ASM shall continuously retrieve and update real-time data about the flight’s airline, number, status, destination, schedule, terminal, gate, and check-in row/door.
   2. ASM shall display this information for the user.
4. Airport Weather:
   1. ASM shall continuously retrieve and update real-time data about the airport’s weather.
   2. ASM shall broadcast this information to the user.
5. Flight Search:
   1. ASM shall display a search parameter where the user can fill in the flight number, airline, or the city.
   2. ASM shall also display two dropdown lists, one for the date (enables them to pick between 3 days starting the current date), and another one for the timings (all timings from 00:00 till 23:59 in 2 hours intervals).
   3. ASM shall filter the flights information that match the user’s search and display it.
6. Flight Tracking:
   1. ASM shall allow the user to track and follow a specific flight.
   2. ASM shall ask for the user’s email address upon their request to track a flight.
   3. ASM shall retrieve any changes or updates on that flight and send them to the user’s email.
   4. ASM shall also send reminders of the flight’s schedule to passengers.
7. Multi-Language Support:
   1. ASM shall provide a language selection option on the user interface.
   2. ASM shall support multiple languages, including English, and Italian to cater to a diverse range of international travellers.
   3. ASM shall display all information in the selected language.
8. In-Flight Information:
   1. ASM shall retrieve additional information for each flight from their respective airlines.
   2. ASM shall display details about in-flight entertainment options, and meal services.
9. Dining options:
   1. ASM shall retrieve and display the names of all the restaurants and cafes in the airport.
   2. ASM shall retrieve and display the menu of each restaurant and cafe with pictures of the items.
10. Shopping:

9.1 ASM shall redirect the users to the shop.

9.4 ASM shall retrieve and display all the shops in there with their location and organize them by category (Gift shop, clothes, beauty, technology, etc…)

9.5 ASM shall retrieve and display the items and prices in each shop, and it shall display the remaining number of stocks in yellow if it’s less or equal to 10. If it’s bigger than 10 it shall display “in stock” in green. If it’s “out of stock”, it shall display it in red under the item.

9.6 ASM shall provide the users with a wish list where they can favourite items to be added there and browse through the items they have favourited. ASM shall allow the user to organize the items on the list alphabetically or by date, the default being the date.

9.7 ASM shall allow the user to search for products or shops in the search parameter.

1. Flight booking:

10.1 ASM shall provide the user with the option to fill in flight information to facilitate booking.

10.2 ASM shall allow the user to fill in the origin country, destination, whether they want a two way or one way ticket, the departure date, and return date.

10.3 ASM shall give the return date option only if the user filled in the two-way ticket option.

10.4 ASM shall redirect the user to Skyscanner where it’ll load the flights that match the user’s input.

1. Hotel booking:

11.1 ASM shall provide the user with the option to fill in hotel information to facilitate booking.

11.2 ASM shall allow the user to fill in the country, city, or landmark, the check-in and check-out dates, and the number of bedrooms, adults, and children.

11.3 ASM shall redirect the user to Booking.com where it’ll load the hotels that match the user’s input.

1. Currency converter:

12.1 ASM shall offer a currency converter where travellers can convert their own currency into the country’s own.

12.2 ASM shall do the appropriate calculations and display the result for the user.

1. Deals:

13.1 ASM shall display the deals of all shops and restaurants within the airport for user’s convenience.

13.2 Once the user clicks on a deal, ASM shall display more information about it and its expiration date.

1. Feedback:

14.1 ASM shall offer a feedback button for the users.

14.2 ASM shall require the user to provide their email address to be able to provide feedback.

14.3 Every email shall be allowed to only vote once.

14.4 ASM shall allow users to rate over 5 stars and leave comments.

1. Parking spots:

15.1 ASM shall display the remaining parking spots picked up by the sensors in real-time for users’ convenience.

15.2 ASM shall offer the users the option to calculate a parking spot.

15.3 ASM shall require the users to fill in the time interval of the rental, “from” and “to”.

15.4 ASM shall then calculate the total rent cost and display it for the user.

**Non-functional requirements**

Performance:

ASM shall support a minimum of 1000 simultaneous users without a decrease in performance, and it shall have a response time of less than 1 second for displaying the information on the website. Moreover, ASM shall be able to handle and process data updates from external sources in real-time.

Scalability:

ASM shall be able to scale vertically enough to support increased user traffic of minimum 2000 concurrent visits while maintaining optimal performance. The system's flexibility to scale assures that it can develop along with the airport's rising operational requirements.

Reliability:

ASM shall have an uptime of 99.9% for users, and any planned maintenance shall be communicated to users in advance. The system shall have reliable backup, locally and remotely, and disaster recovery features that guarantee data security and rapid operations recovery in the event of system failures. Additionally, the system shall have backup servers for redundancy in case of hard drive failure, disaster or technical failures.

Security:

ASM shall encrypt and securely store user data, especially the email address for flight tracking, user feeedback, and shopping. Encryption shall be implemented using Advanced Encryption Standard (AES) with a 256-bit key, to ensure confidentality and integrity of users email. While SHA-512 encryption will be used to encrypt passwords. Additionally, TLS 1.3 encryption is required for any internet data transmission. Furthermore, the system shall include ECDHE\_RSA for secure key exhange.

Usability:

The website shall be user-friendly for users to efficiently and easily learn to use the system. Their error rate should not exceed 10 percent, and the time the users take to complete main actions once they see the interface shall not exceed 15 seconds.

Compatibility:

ASM shall support web browsers, icluding Google Chrome, Safari, and Microsoft Edge. It shall be responsive and compatible wiht various screem sizes and devices, including laptops, tablets, and smartphones.

Maintainability:

The mean time to restore the ASM following a system failure shall not exceed 10 minutes, for the system’s long-term viability.

Legal and Ethical:

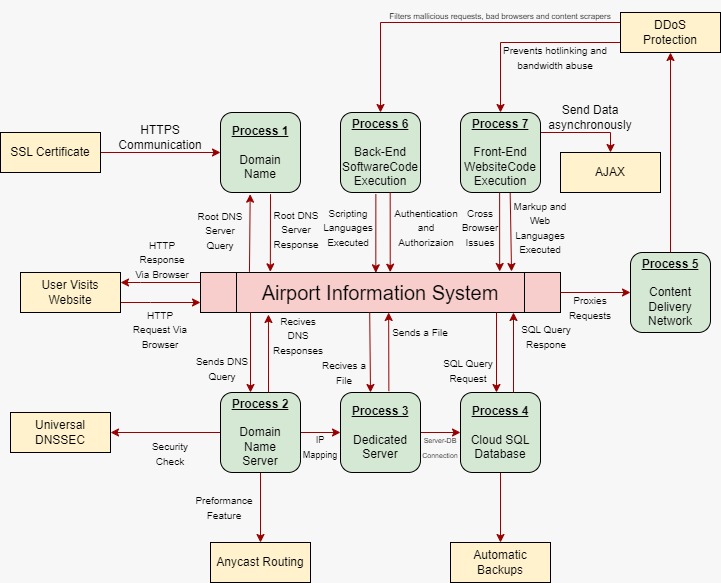
ASM shall comply with relevant data privacy and protection regulations such as GDPR (General Data Protection Regulation). It shall obtain consent for data processing if required, and have a transparent privacy policy that informs users about how their data is stored, collected, and used. It shall also allow users to control their data preferences.

Documentation:

Administrators and users shall have access to clear and thorough documentation that will help them understand the functionality of the system and efficiently troubleshoot common problems.

**System Model**

**Diagram:**



**Description:**

* Our system design diagram primarily comprises an Airport Information System hosted online at the application layer. This system allows users from anywhere in the world to access it and perform basic tasks.
* When a user enters the domain name in a web or mobile browser, an HTTP request is sent to ASM. The website only loads if it has an HTTPS certificate, and if the user attempts to access it using non-secure HTTP, the website will automatically redirect to HTTPS.
* Once the user enters the domain name and proceeds, the root DNS server is queried, and a response DNS query allows the system to send another DNS query to the local DNS server.
* The local DNS server operates with high speed due to its anycast routing feature and is also secure against man-in-the-middle attacks as it performs DNSSEC security checks.
* Subsequently, the local DNS server provides the IP address of the dedicated server.
* ASM can then exchange requests with the dedicated server.
* The dedicated server is connected to a network that enhances its speed.
* The dedicated server can establish a connection with the Cloud SQL database and query it.
* The Cloud SQL database is highly capable and can handle substantial amounts of data.
* In addition, SEP's content delivery network (CDN) will act as a proxy for all requests and filter out malicious ones to prevent Distributed Denial of Service (DDoS) attacks.
* The CDN's built-in security features will filter malicious requests, block bad browsers and content scrapers on the backend, and prevent hotlinking and bandwidth abuse on the frontend code.
* Finally, the scripting and web markup languages will be executed, and the data will be presented as an HTTP response to the user.

**Subsystems**

**Domain name management:**

Domain name management is an important subsystem that deals with the administration of domain names, which are typically used for various purposes in the aviation industry.

The Domain Name Management subsystem is responsible for the registration, administration, and maintenance of domain names related to ASM. These domain names are used for various purposes within the aviation domain and are crucial for the smooth operation of ASM. The subsystem ensures that domain names are correctly configured, renewed, and remain accessible to support different functionalities within ASM.

**Database system:**

ASM’s Database Management Component is essential for managing all server operations and safely storing sensitive flight and passenger data. All server-side SQL queries generated by the Application Server Component are processed by ASM’S powerful relational SQL database that is hosted on a dedicated cloud server. This database ensures data reliability and integrity by running independently on its own server. It is closely linked to the Application Server Component, allowing for smooth data transfer, but it strictly keeps apart from the Web Application Component for increased security. SQL queries are created and sent by the dedicated application server to the cloud database, where they are executed, updating flight information, weather data, and other relevant information. Most importantly, limiting direct access to the database ensures privacy and protects private data from unauthorized users, such as employees, travelers, and testers.

**Web app:**

Our members can interact with ASM with ease thanks to the dynamic and user-friendly platform provided by the Interactive User Interface Component. This component offers a user-friendly interface for users to interact with the flight information system. Users may include passengers, employees, administrators, system testers, and anonymous visitors. The web interface's utilization of technologies like HTML, CSS, and JavaScript guarantees a dynamic and user-friendly experience. To enable real-time communication between users and the system, it makes use of AJAX requests. Requests made by users are turned into server requests by the web interface, and the Application Server Component handles these requests with ease. This component improves the user experience by enabling users to request, access, and receive the most recent flight information from ASM.

**Application Server Component:**

The Application Server serves as the nerve center of the system, effectively handling a wide range of user requests pertaining to flight data. These requests span from flight tracking to real-time arrival and departure information, and schedule changes. Housed on a reliable, robust, and scalable dedicated server, the Application Server acts as the essential gateway connecting users and ASM. The server responds quickly to user requests, ensuring prompt responses and accurate analysis of the data. The Application Server is essential to providing seamless, real-time flight information and improving users' travel experiences, whether it be through flight tracking, flight status confirmation, or live updates.

**DNS Server Component:**

Transforming user-provided domain names into matching IP addresses is a crucial operation of the DNS Resolution Service, which makes it easier for devices to communicate with each other over the internet. This component, which is a part of the global Domain Name System, queries root DNS servers for the specified domain name in order to determine which Top-Level Domain (TLD) server is associated with it. It then makes contact with the TLD DNS server in order to find out who is the authoritative DNS server for that particular domain. The service obtains the related IP address by contacting the authoritative DNS server, facilitating effective data transfer between servers and apps. Errors are managed via exception handling methods, which guarantee users' and applications' precise and dependable domain resolution.

**System Evolution**

**1-Fundamental Assumptions**

The ASM is designed based on fundamental assumptions about the aviation industry, airport operations, and passenger expectations. This includes factors such as the volume of air traffic, regulatory changes, security standards, and technology trends.

**2-Anticipated Changes**

* Hardware Evolution: As technology advances, ASM shall anticipate and adapt to the integration of new and improved hardware for better security, user experience, and data processing. Examples include advanced servers, data storage solutions, and display systems.
* Changing User Needs: Passenger expectations and needs change over time. The system shall be capable of incorporating new features to improve the experience for passengers. Examples include personalized flight recommendations, real-time traffic updates for airport navigation, and integration with smart devices.
* Regulatory and Compliance Changes: The aviation industry is subject to ever-evolving regulations and security standards. This is why the system shall be designed to be able to flexibly incorporate changes in these regulations, including adjustments to privacy policies and data protection measures.
* Scalability and Performance: As an airport grows, so does the complexity and the number of its operations. This is why the system shall be capable of scaling to accommodate larger user volumes and increased real-time data flow while maintaining optimal performance.

**3-Design Flexibility**

ASM shall be designed with modularity and flexibility. It shall also be well-documented to easily facilitate future integration with new hardware, software, and data sources.

**4-Risk Mitigation**

To mitigate risks associated with changes, the system shall undergo regular security audits, and version control will be implemented to track software changes. Documentation shall be maintained to assist in troubleshooting and system updates, and data encryption shall be continually updated to meet the latest security standards.

**5-Long-term Vision:**

The long-term vision for the ASM shall include advancements in airport automation, improved user experience, and enhanced security measures. Future features may encompass predictive flight delay notifications, personalized travel options, and AI-driven chatbots for passenger assistance. The system aims to remain at the forefront of airport technology and be ready to adopt innovations that enhance airport management and passenger services.

**Appendix**

**Hardware Requirements**

**Minimum Configuration:**

CPU: Hexa-core processor with a minimum clock speed of 3.0 GHz.

RAM: 16 GB of RAM for stable performance.

Storage: 512 GB of SSD storage for storing data records and local backups.

Network: A stable internet connection with a minimum bandwidth of 10 Mbps for real-time data exchange.

**Recommended Configuration:**

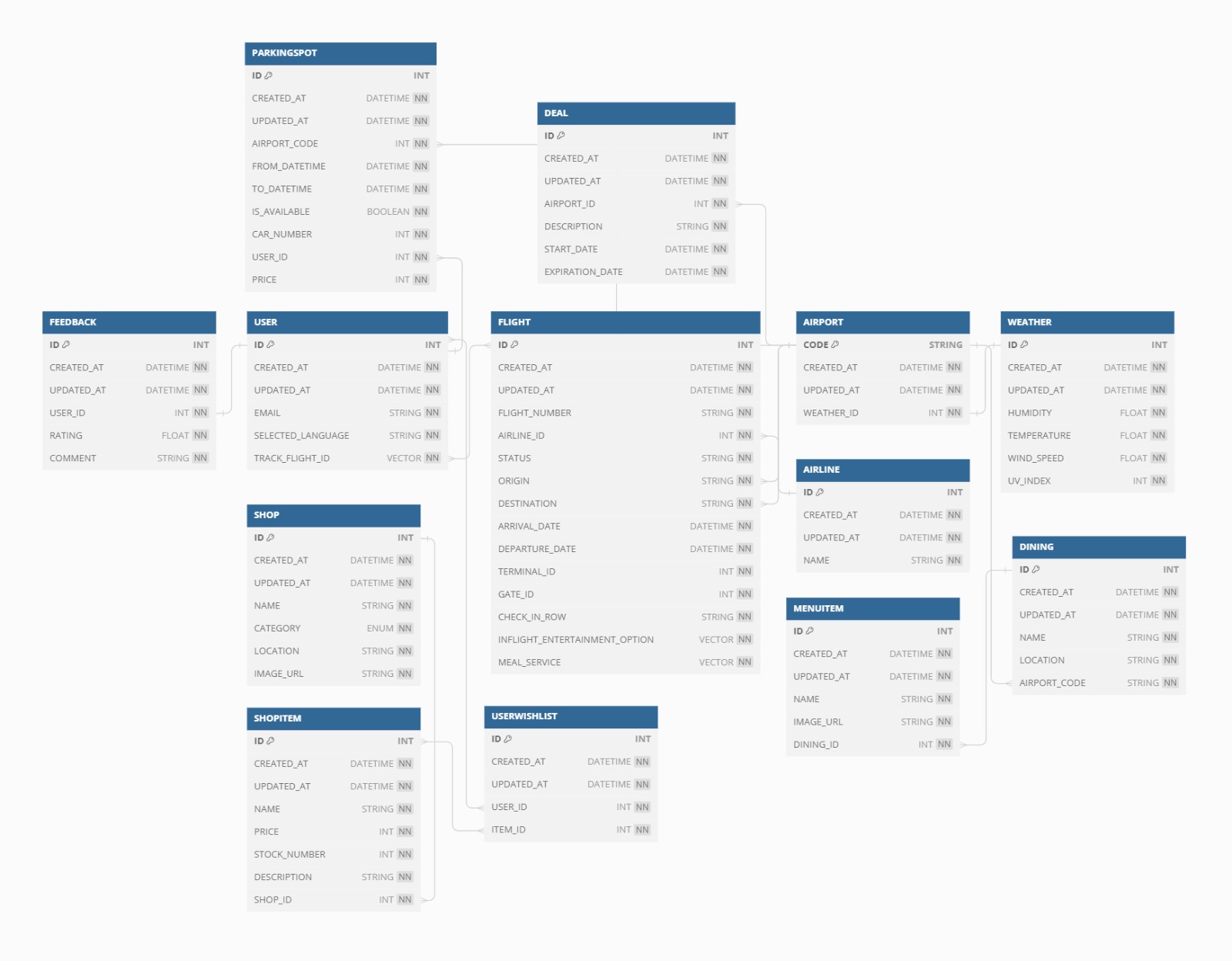
CPU: Octa-core processor with a clock speed of 3.5 GHz or higher for improved performance.

RAM: 32 GB of RAM for smoother operation and efficient multitasking.

Storage: 1 TB of SSD storage for faster data access and retrieval.

Network: A high-speed, redundant internet connection with a bandwidth of 50 Mbps or more to support real-time communication with various airport systems.

**Database Requirements with Data Relationships**

****

Logical Data Organization and Data Relationships

**USER:**

**Attributes:**

* ID
* CREATED\_AT
* UPDATED\_AT
* EMAIL
* SELECTED\_LANGUAGE
* TRACK\_FLIGHT\_ID

**Relationships:**

USER is linked to FLIGHT since there is a many-to-many relationship between TRACK\_FLIGHT\_ID and ID (FLIGHT Table). Each user can track multiple flights, and each flight can be tracked by multiple users. This relationship allows the system to send any updates regarding the tracked flights to the user.

**FLIGHT:**

**Attributes:**

* ID
* CREATED\_AT
* UPDATED\_AT
* FLIGHT\_NUMBER
* AIRLINE\_ID
* STATUS
* ORIGIN
* DESTINATION
* ARRIVAL\_DATE
* DEPARTURE\_DATE
* TERMINAL\_ID
* GATE\_ID
* CHECK\_IN\_ROW
* INFLIGHT\_ENTERTAINMENT\_OPTION
* MEAL\_SERVICE

**Relationships:**

FLIGHT is linked to AIRPORT and AIRLINE since there is a many-to-one relationship between AIRLINE\_ID and ID (AIRLINE table), a many-to-one relationship between ORIGIN and ID (AIRPORT Table), and a many-to-one relationship between DESTINATION and ID (AIRPORT Table). Many flights can depart from and arrive at the same airport, but each flight has only one origin and one destination airport. Moreover, many flights can be operated by the same airline, but each flight is associated with only one airline. These relationships enable the system to inform the user which airline is associated with the flight, where it is coming from, and to where it is going.

**AIRPORT:**

**Attributes:**

* CODE
* CREATED\_AT
* UPDATED\_AT
* WEATHER\_ID

**Relationships:**

AIRPORT is linked to FLIGHT since there is a one-to-many relationship. This relationship allows the system to inform the user where the flight is coming from and to where it is going. Moreover, AIRPORT is linked to WEATHER since there is a one-to-one relationship between WEATHER\_ID and ID (WEATHER Table). Each airport has one corresponding set of weather data, and each set of weather data belongs to one airport. This relationship allows the system to inform the user about the weather in different cities and airports.

**AIRLINE:**

**Attributes:**

* ID
* CREATED\_AT
* UPDATED\_AT
* NAME

**Relationships:**

AIRLINE is linked to FLIGHT since there is a one-to-many relationship. This relationship allows the system to inform the user which airline is associated with the flight.

**WEATHER:**

**Attributes:**

* ID
* CREATED\_AT
* UPDATED\_AT
* HUMIDITY
* TEMPERATURE
* WIND
* UV\_INDEX

**Relationships:**

WEATHER is linked to AIRPORT since there is a one-to-one relationship. This relationship allows the system to show the user about the weather in different cities and airports.

**SHOP:**

**Attributes:**

* ID
* CREATED\_AT
* UPDATED\_AT
* NAME
* CATEGORY
* LOCATION
* IMAGE\_UR;

**Relationships:**

SHOP is linked to AIRPORT since there is a one-to-many relationship. Many shops can be located in one airport, but each shop belongs to only one airport. This relationship allows the system to inform the user about the available shops within the airport.

**SHOP\_ITEM:**

**Attributes:**

* ID
* SHOP\_ID
* CREATED\_AT
* UPDATED\_AT
* NAME
* PRICE
* STOCK\_NUMBER
* DESCRIPTION

**Relationships:**

ITEM is linked to SHOP since there is a one-to-many relationship. Many items can be available in one shop, but each item belongs to only one shop. This relationship allows the system to display the items and prices in each shop.

**USER\_WISHLIST:**

**Attributes:**

* ID
* CREATED\_AT
* UPDATED\_AT
* USER\_ID
* ITEM\_ID

**Relationships:**

USER\_WISHLIST is linked to USER and ITEM since there is a many-to-many relationship between USER\_ID and ID, and ITEM\_ID and ID. Each user can have multiple items in their wishlist, and each item can be in the wishlist of multiple users. This relationship allows the system to keep track of the items that each user has favorited.

**DINING:**

**Attributes:**

* ID
* AIRPORT\_CODE
* CREATED\_AT
* UPDATED\_AT
* NAME
* LOCATION

**Relationships:**

DINING is linked to AIRPORT since there is a one-to-many relationship. Many dining options can be located in one airport, but each dining option belongs to only one airport. This relationship allows the system to inform the user about the available dining options within the airport.

**MENU\_ITEM:**

**Attributes:**

* ID
* CREATED\_AT
* UPDATED\_AT
* NAME
* IMAGE\_URL
* DINING\_ID

**Relationships:**

MENU\_ITEM is linked to DINING since there is a one-to-many relationship. Many menu items can be available in one dining option, but each menu item belongs to only one dining option. This relationship allows the system to display the menu of each restaurant and cafe with pictures of the items and their prices.

**PARKING SPOT:**

**Attributes:**

* ID
* CREATED\_AT
* UPDATED\_AT
* AIRPORT\_CODE
* FROM\_DATETIME
* TO\_DATETIME
* IS\_AVAILABLE
* CAR\_NUMBER
* USER\_ID
* PRICE

**Relationships:**

PARKING\_SPOT is linked to AIRPORT since there is a one-to-many relationship between AIRPORT\_ID and ID. Many parking spots can be available in one airport, but each parking spot belongs to only one airporrt. PARKING\_SPOT is also linked to USER since there is a one-to-many relationship beween ID and USER\_ID. Users can rent many parking spots, but each parking spot is rented by only one user. This relationship allows the system to display the real-time information on the availability of parking spots in different airports.

**DEAL:**

**Attributes:**

* ID
* CREATED\_AT
* UPDATED\_AT
* AIRPORT\_ID
* DESCRIPTION
* START\_DATE
* EXPIRATION\_DATE

**Relationships:**

DEAL is linked to AIRPORT since there is a one-to-many relationship btween AIRPORT\_ID and ID. Many deals can be associated with one airport, but each deal is related to only one airport. This relationship allows the system to display deals for various services within the airport, including parking spots, dining options, and shopping.

**FEEDBACK:**

**Attributes:**

* ID
* CREATED\_AT
* UPDATED\_AT
* USER\_ID
* RATING
* COMMENTS

**Relationships:**

Feedback is linked to USER since there is a one-to-one relationship between USER\_ID and ID. One user can only give one feedback, and each feedback entry is related to only one user. This relationship allows the system to store and manage user feedback, including ratings and comments.

**A-Templates:**

Create\_account.HTML:

<html lang="en"><head>

<meta charset="UTF-8">

<title>Create New Account</title>

</head>

<body>

<input id="username-input" placeholder="Enter your username here...">

<button id="create-account-btn">Create</button>

<script src="../static/js/create\_account.js"></script>

</body></html>

Dining.HTML:

<html lang="en"><head>

<meta charset="UTF-8">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/5.15.4/css/all.min.css">

<link rel="stylesheet" href="../static/css/dining.css">

<link rel="stylesheet" href="../static/css/navbar.css">

<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">

<title>Dining</title>

</head>

<body>

<nav class="navbar navbar-expand-lg navbar-dark fixed-top">

<div class="container">

<a class="navbar-brand" href="/">ASM Airport</a>

<div class="navbar-collapse" id="navbarNav">

<ul class="navbar-nav mr-auto">

<li class="nav-item">

<a class="nav-link" href="flightInfo">Flights</a>

</li>

<li class="nav-item">

<a class="nav-link" href="dining">Dine</a>

</li>

<li class="nav-item">

<a class="nav-link" href="shopping">Shop</a>

</li>

</ul>

<ul class="navbar-nav ml-auto">

<li class="nav-item dropdown">

<a class="nav-link dropdown-toggle" href="" id="languageDropdown" role="button" data-toggle="dropdown" aria-haspopup="true" aria-expanded="false">

<img src="../static/images/UK\_Flag.svg" alt="Language" class="rounded-circle flag-icon">

</a>

<div class="dropdown-menu" aria-labelledby="languageDropdown">

<a class="dropdown-item" href="/">English</a>

<a class="dropdown-item" href="en=it">Italian</a>

</div>

</li>

<li class="nav-item">

<a class="nav-link" href="logout" id="userIconLink">

<img src="../static/images/icon.png" alt="User" class="rounded-circle user-icon small-icon" id="userIcon">

</a>

</li>

</ul>

</div>

</div>

</nav>

<div id="blur">

<div id="background-slideshow">

<div class="background-slide active" style="background-image: url('../static/images/r.jpg')"></div>

</div>

<h2>DINING DIRECTORY</h2>

<form class="search-form">

<input type="search" value="" placeholder="Search for Restaurants" class="search-input">

<button type="submit" class="search-button">

<svg class="submit-button">

<use xmlns:xlink="http://www.w3.org/1999/xlink" xlink:href="#search"></use>

</svg>

</button>

<div class="search-icons">

<button type="button" class="icon-button" data-tooltip="Arrival">

<svg xmlns="http://www.w3.org/2000/svg" height="1.25em" viewBox="0 0 512 512">

<path d="M0 192c0-35.3 28.7-64 64-64c.5 0 1.1 0 1.6 0C73 91.5 105.3 64 144 64c15 0 29 4.1 40.9 11.2C198.2 49.6 225.1 32 256 32s57.8 17.6 71.1 43.2C339 68.1 353 64 368 64c38.7 0 71 27.5 78.4 64c.5 0 1.1 0 1.6 0c35.3 0 64 28.7 64 64c0 11.7-3.1 22.6-8.6 32H8.6C3.1 214.6 0 203.7 0 192zm0 91.4C0 268.3 12.3 256 27.4 256H484.6c15.1 0 27.4 12.3 27.4 27.4c0 70.5-44.4 130.7-106.7 154.1L403.5 452c-2 16-15.6 28-31.8 28H140.2c-16.1 0-29.8-12-31.8-28l-1.8-14.4C44.4 414.1 0 353.9 0 283.4z"></path>

</svg>

</button>

<button type="button" class="icon-button" data-tooltip="Departure">

<svg xmlns="http://www.w3.org/2000/svg" height="1.25em" viewBox="0 0 576 512">

<path d="M432 240c53 0 96-43 96-96s-43-96-96-96c-35.5 0-66.6 19.3-83.2 48H296.2C316 40.1 369.3 0 432 0c79.5 0 144 64.5 144 144s-64.5 144-144 144c-27.7 0-53.5-7.8-75.5-21.3l35.4-35.4c12.2 5.6 25.8 8.7 40.1 8.7zM1.8 142.8C5.5 133.8 14.3 128 24 128H392c9.7 0 18.5 5.8 22.2 14.8s1.7 19.3-5.2 26.2l-177 177V464h64c13.3 0 24 10.7 24 24s-10.7 24-24 24H208 120c-13.3 0-24-10.7-24-24s10.7-24 24-24h64V345.9L7 169c-6.9-6.9-8.9-17.2-5.2-26.2z"></path>

</svg>

</button>

</div>

</form>

<button id="btn" style="display: none;"></button>

<div class="container">

<div class="box-container">

<div class="box">

<div class="image">

<img src="../static/images/image1.png" alt="">

</div>

<div class="content">

<h3>Culinary Haven</h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<button class="btn" onclick="toggle('../static/images/oop.jpg')">Menu</button>

</div>

</div>

<div class="box">

<div class="image">

<img src="../static/images/image15.png" alt="">

</div>

<div class="content">

<h3>Savory Delights</h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<button class="btn" onclick="toggle('../static/images/oop.jpg')">Menu</button>

</div>

</div>

<div class="box">

<div class="image">

<img src="../static/images/image2.png" alt="">

</div>

<div class="content">

<h3>Fusion Feast</h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<button class="btn" onclick="toggle('../static/images/oop.jpg')">Menu</button>

</div>

</div>

<div class="box">

<div class="image">

<img src="../static/images/image14.png" alt="">

</div>

<div class="content">

<h3>Sizzling Sensations</h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<button class="btn" onclick="toggle('../static/images/oop.jpg')">Menu</button>

</div>

</div>

<div class="box">

<div class="image">

<img src="../static/images/image3.png" alt="">

</div>

<div class="content">

<h3>Culinary Canvas</h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<button class="btn" onclick="toggle('../static/images/oop.jpg')">Menu</button>

</div>

</div>

<div class="box">

<div class="image">

<img src="../static/images/image13.png" alt="">

</div>

<div class="content">

<h3>Urban Bites</h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<button class="btn" onclick="toggle('../static/images/oop.jpg')">Menu</button>

</div>

</div>

<div class="box">

<div class="image">

<img src="../static/images/image4.png" alt="">

</div>

<div class="content">

<h3>Gourmet Gateway</h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<button class="btn" onclick="toggle('../static/images/oop.jpg')">Menu</button>

</div>

</div>

<div class="box">

<div class="image">

<img src="../static/images/image12.png" alt="">

</div>

<div class="content">

<h3>Spice Symphony</h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<button class="btn" onclick="toggle('../static/images/oop.jpg')">Menu</button>

</div>

</div>

<div class="box">

<div class="image">

<img src="../static/images/image5.png" alt="">

</div>

<div class="content">

<h3>Coastal Cravings</h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<button class="btn" onclick="toggle('../static/images/oop.jpg')">Menu</button>

</div>

</div>

<div class="box">

<div class="image">

<img src="../static/images/image11.png" alt="">

</div>

<div class="content">

<h3>Flavor Fusion Gril</h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<button class="btn" onclick="toggle('../static/images/oop.jpg')">Menu</button>

</div>

</div>

<div class="box">

<div class="image">

<img src="../static/images/image6.png" alt="">

</div>

<div class="content">

<h3>Bistro Bliss</h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<button class="btn" onclick="toggle('../static/images/oop.jpg')">Menu</button>

</div>

</div>

<div class="box">

<div class="image">

<img src="../static/images/image10.png" alt="">

</div>

<div class="content">

<h3>Zesty Restaurant</h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<button class="btn" onclick="toggle('../static/images/oop.jpg')">Menu</button>

</div>

</div>

<div class="box">

<div class="image">

<img src="../static/images/image7.png" alt="">

</div>

<div class="content">

<h3>Palate Pleasures</h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<button class="btn" onclick="toggle('../static/images/oop.jpg')">Menu</button>

</div>

</div>

<div class="box">

<div class="image">

<img src="../static/images/image9.png" alt="">

</div>

<div class="content">

<h3>Epicurean Escape</h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<button class="btn" onclick="toggle('../static/images/oop.jpg')">Menu</button>

</div>

</div>

<div class="box">

<div class="image">

<img src="../static/images/image8.png" alt="">

</div>

<div class="content">

<h3>Gastronomic Galore</h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<button class="btn" onclick="toggle('../static/images/oop.jpg')">Menu</button>

</div>

</div>

</div>

<div id="load-more"> load more</div>

</div>

</div>

<div id="popup">

<span id="closeBtn">×</span>

<img src="../static/images/oop.jpg">

</div>

<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"></script>

<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/popper.min.js"></script>

<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"></script>

<script src="../static/js/dining.js"></script>

<script src="../static/js/navbar.js"></script>

</body></html>

Flight\_info.HTML:

<html lang="en"><head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Flight Info</title>

<link rel="stylesheet" href="../static/css/navbar.css">

<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">

<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"></script>

<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/popper.min.js"></script>

<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"></script>

<link rel="stylesheet" href="../static/css/flight\_info.css">

</head>

<body>

<nav class="navbar navbar-expand-lg navbar-dark fixed-top">

<div class="container">

<a class="navbar-brand" href="/">ASM Airport</a>

<div class="navbar-collapse" id="navbarNav">

<ul class="navbar-nav mr-auto">

<li class="nav-item">

<a class="nav-link" href="flightInfo">Flights</a>

</li>

<li class="nav-item">

<a class="nav-link" href="dining">Dine</a>

</li>

<li class="nav-item">

<a class="nav-link" href="shopping">Shop</a>

</li>

</ul>

<ul class="navbar-nav ml-auto">

<li class="nav-item dropdown">

<a class="nav-link dropdown-toggle" href="" id="languageDropdown" role="button" data-toggle="dropdown" aria-haspopup="true" aria-expanded="false">

<img src="../static/images/UK\_Flag.svg" alt="Language" class="rounded-circle flag-icon">

</a>

<div class="dropdown-menu" aria-labelledby="languageDropdown">

<a class="dropdown-item" href="/">English</a>

<a class="dropdown-item" href="en=it">Italian</a>

</div>

</li>

<li class="nav-item">

<a class="nav-link" href="logout" id="userIconLink">

<img src="../static/images/icon.png" alt="User" class="rounded-circle user-icon small-icon" id="userIcon">

</a>

</li>

</ul>

</div>

</div>

</nav>

<div id="image-container">

<img src="../static/images/Niew project (1).jpg" alt="Header Image">

<section id="search-section">

<div id="header-container">

<h2>PASSENGER ARRIVALS</h2>

<p>Keep track of arriving passenger flights with live updates.</p>

</div>

<form id="search-form">

<input type="text" id="flight-search-input" name="flightSearchInput" oninput="filterFlights()" placeholder="Flight Number, Country, or City:">

<select id="scheduled-day" name="date" onchange="filterFlights()">

<option value="Today">Today</option>

<option value="Tomorrow">Tomorrow</option>

<option value="Day after tomorrow">Day after tomorrow</option>

</select>

<select id="scheduled-time" name="time" onchange="filterFlights()">

</select>

<div class="toggle-switch-container">

<span class="toggle-label">Arrival</span>

<div id="flight-type-toggle" class="toggle-switch">

<div class="toggle-switch-slider"></div>

</div>

<span class="toggle-label">Departure</span>

</div>

</form>

<div id="search-results"></div>

</section>

<div id="lightbox" class="hidden" style="display:none">

<div id="modal-content">

<span class="close-button" onclick="closeLightbox()">×</span>

<div id="in-flight-details"></div>

<div class="lightbox-header-container">

<button class="lightbox-header" id="track-btn"> Track</button>

</div>

</div>

</div>

</div>

<div id="loading-indicator">

<img src="../static/images/loading.gif" alt="Loading...">

</div>

<script src="https://cdn.jsdelivr.net/npm/@supabase/supabase-js@2"></script>

<script src="../static/js/flight\_info.js"></script>

<script src="../static/js/navbar.js"></script>

</body></html>

Home.HTML:

<html lang="en"><head>

<meta charset="UTF-8">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Beirut International Airport</title>

<link rel="stylesheet" href="../static/css/index.css">

<link rel="stylesheet" href="../static/css/navbar.css">

<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css">

<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"></script>

<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/popper.min.js"></script>

<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"></script>

</head>

<body>

<nav class="navbar navbar-expand-lg navbar-dark fixed-top">

<div class="container">

<a class="navbar-brand" href="/">ASM Airport</a>

<div class="navbar-collapse" id="navbarNav">

<ul class="navbar-nav mr-auto">

<li class="nav-item">

<a class="nav-link" href="flightInfo">Flights</a>

</li>

<li class="nav-item">

<a class="nav-link" href="dining">Dine</a>

</li>

<li class="nav-item">

<a class="nav-link" href="shopping">Shop</a>

</li>

</ul>

<ul class="navbar-nav ml-auto">

<li class="nav-item dropdown">

<a class="nav-link dropdown-toggle" href="" id="languageDropdown" role="button" data-toggle="dropdown" aria-haspopup="true" aria-expanded="false">

<img src="../static/images/UK\_Flag.svg" alt="Language" class="rounded-circle flag-icon">

</a>

<div class="dropdown-menu" aria-labelledby="languageDropdown">

<a class="dropdown-item" href="/">English</a>

<a class="dropdown-item" href="en=it">Italian</a>

</div>

</li>

<li class="nav-item">

<a class="nav-link" href="logout" id="userIconLink">

<img src="../static/images/icon.png" alt="User" class="rounded-circle user-icon small-icon" id="userIcon">

</a>

</li>

</ul>

</div>

</div>

</nav>

<div id="background-slideshow">

<div class="background-slide active" style="background-image: url('../static/images/home\_1.jpg');"></div>

<div class="background-slide" style="background-image: url('../static/images/home\_2.jpg');"></div>

<div class="background-slide" style="background-image: url('../static/images/home\_3.jpg');"></div>

<div class="background-slide" style="background-image: url('../static/images/home\_4.jpeg');"></div>

<div class="background-slide" style="background-image: url('../static/images/home\_5.jpeg');"></div>

</div>

<form class="search-form">

<input type="search" value="" placeholder="Search for flights" class="search-input">

<button type="submit" class="search-button">

<svg class="submit-button">

<use xmlns:xlink="http://www.w3.org/1999/xlink" xlink:href="#search"></use>

</svg>

</button>

<div class="search-icons">

<button type="button" class="icon-button" data-tooltip="Arrival">

<svg class="icon-svg" xmlns="http://www.w3.org/2000/svg" height="1em" viewBox="0 0 640 512">

<path d="M624 448H16c-8.84 0-16 7.16-16 16v32c0 8.84 7.16 16 16 16h608c8.84 0 16-7.16 16-16v-32c0-8.84-7.16-16-16-16zM44.81 205.66l88.74 80a62.607 62.607 0 0 0 25.47 13.93l287.6 78.35c26.48 7.21 54.56 8.72 81 1.36 29.67-8.27 43.44-21.21 47.25-35.71 3.83-14.5-1.73-32.71-23.37-54.96-19.28-19.82-44.35-32.79-70.83-40l-97.51-26.56L282.8 30.22c-1.51-5.81-5.95-10.35-11.66-11.91L206.05.58c-10.56-2.88-20.9 5.32-20.71 16.44l47.92 164.21-102.2-27.84-27.59-67.88c-1.93-4.89-6.01-8.57-11.02-9.93L52.72 64.75c-10.34-2.82-20.53 5-20.72 15.88l.23 101.78c.19 8.91 6.03 17.34 12.58 23.25z"></path>

</svg>

</button>

<button type="button" class="icon-button" data-tooltip="Departure">

<svg class="icon-svg" xmlns="http://www.w3.org/2000/svg" height="1em" viewBox="0 0 640 512">

<path d="M624 448H16c-8.84 0-16 7.16-16 16v32c0 8.84 7.16 16 16 16h608c8.84 0 16-7.16 16-16v-32c0-8.84-7.16-16-16-16zM80.55 341.27c6.28 6.84 15.1 10.72 24.33 10.71l130.54-.18a65.62 65.62 0 0 0 29.64-7.12l290.96-147.65c26.74-13.57 50.71-32.94 67.02-58.31 18.31-28.48 20.3-49.09 13.07-63.65-7.21-14.57-24.74-25.27-58.25-27.45-29.85-1.94-59.54 5.92-86.28 19.48l-98.51 49.99-218.7-82.06a17.799 17.799 0 0 0-18-1.11L90.62 67.29c-10.67 5.41-13.25 19.65-5.17 28.53l156.22 98.1-103.21 52.38-72.35-36.47a17.804 17.804 0 0 0-16.07.02L9.91 230.22c-10.44 5.3-13.19 19.12-5.57 28.08l76.21 82.97z"></path>

</svg>

</button>

</div>

</form>

<form class="API"></form>

<div id="weather-container">

<!-- Weather information will be displayed here -->

</div>

<div class="container converter-container">

<h2 class="text-center mb-4">Convertitore Di Valuta</h2>

<div class="form-group">

<label for="fromCurrency">Dalla Valuta:</label>

<select class="form-control" id="fromCurrency">

<!-- Options will be dynamically added using JavaScript -->

</select>

</div>

<div class="form-group">

<label for="toCurrency">Alla Valuta:</label>

<select class="form-control" id="toCurrency">

<!-- Options will be dynamically added using JavaScript -->

</select>

</div>

<div class="form-group">

<label for="amount">Quantità:</label>

<input type="number" class="form-control" id="amount" placeholder="Enter amount">

</div>

<button class="btn btn-primary btn-block" onclick="convertCurrency()">Convertire</button>

<div class="result">

<h4>Risultato:</h4>

<p id="result"></p>

</div>

</div>

<section class="section">

<div class="header">

<h2 class="highlights-title">Punti Salienti</h2>

<p class="highlights-subtitle">Scopri di più sugli ultimi eventi nel paese.</p>

</div>

<div class="carousel-container">

<button id="highlights-scroll-left" class="scroll-button left" aria-hidden="true">‹</button>

<div id="highlights-carousel" class="carousel">

<div class="list">

<div class="card" onclick="openPopup('Festival musicale di Beirut', 'Goditi il &ZeroWidthSpace;&ZeroWidthSpace;vivace Festival musicale di Beirut, una spettacolare celebrazione dei talenti locali e internazionali. Tenutosi nel cuore della città, questo evento presenta un mix di generi, dalla musica tradizionale libanese ai ritmi contemporanei, offrendo un viaggio musicale attraverso il ricco arazzo culturale del Libano. Goditi spettacoli dal vivo, laboratori interattivi e un vivace mercato alimentare che mostra prelibatezze locali.', '../static/images/music\_festival.jpg');">

<img src="../static/images/music\_festival.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title">Festival musicale di Beirut</h3>

<p class="card-description">Goditi il &ZeroWidthSpace;&ZeroWidthSpace;vivace Festival musicale di Beirut, uno spettacolo

celebrazione del talento locale e internazionale.</p>

</div>

</div>

<div class="card" onclick="openPopup('Avventura escursionistica ai Cedri di Dio', 'Esplora i maestosi Cedri di Dio, patrimonio mondiale dell UNESCO nella regione di Bsharri. Partecipa a un escursione guidata attraverso queste antiche foreste, che ospitano alcuni dei cedri più antichi del mondo. L escursione offre viste mozzafiato sulle montagne e sulle valli circostanti, culminando in un picnic con prodotti locali.', '../static/images/cedars.jpg');">

<img src="../static/images/cedars.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title">Avventura escursionistica ai Cedri di Dio</h3>

<p class="card-description">Esplora i maestosi Cedri di Dio, patrimonio mondiale dell'UNESCO

la regione di Bsharri.</p>

</div>

</div>

<div class="card" onclick="openPopup('Tour storici di Byblos', 'Torna indietro nel tempo con le visite storiche guidate di Byblos, una delle città più antiche del mondo abitate ininterrottamente. Scopri antiche rovine, templi fenici e fortezze medievali, ognuno dei quali racconta la ricca storia del Libano. Il tour include una visita all incantevole Byblos Souk, dove gli artigiani vendono artigianato tradizionale e souvenir.', '../static/images/byblos.jpg');">

<img src="../static/images/byblos.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title">Tour storici di Byblos</h3>

<p class="card-description">Torna indietro nel tempo con le visite storiche guidate di Byblos,

uno dei

le più antiche città abitate ininterrottamente del mondo.</p>

</div>

</div>

<div class="card" onclick="openPopup('Tour del vino e dei vigneti libanesi', 'Scopri le rinomate cantine del Libano con una visita guidata attraverso pittoreschi vigneti. Scopri le tecniche tradizionali di vinificazione e assaggia una varietà di vini locali, dai rossi robusti ai bianchi frizzanti. Il tour include visite a diverse aziende vinicole della valle della Bekaa, ognuna con la propria storia e il proprio profilo aromatico unici', '../static/images/wine.jpg');">

<img src="../static/images/wine.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title">Tour del vino e dei vigneti libanesi</h3>

<p class="card-description">Scopri le rinomate cantine del Libano con una visita guidata

vigneti pittoreschi. </p>

</div>

</div>

</div>

</div>

<button id="highlights-scroll-right" class="scroll-button right">›</button>

</div>

</section>

<section class="section">

<div class="carousel-container">

<button id="deals-scroll-left" class="scroll-button left" aria-hidden="true">‹</button>

<div id="deals-carousel" class="carousel">

<div class="list">

<div class="card" onclick="openPopup('Fuga gourmet a Beirut', 'Concedetevi un esperienza culinaria di lusso presso il ristorante più apprezzato di Beirut, Le Gourmet Libanais. Goditi un pasto di 5 portate con i migliori sapori mediterranei, con ogni piatto sapientemente realizzato da rinomati chef. Perfetto per occasioni speciali o serate sontuose.', '../static/images/getaway.jpg');">

<img src="../static/images/getaway.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title">Fuga gourmet a Beirut</h3>

<p class="card-description">Concedetevi un'esperienza culinaria di lusso nei migliori ristoranti

di Beirut

ristorante, 'Le Gourmet Libanais'.</p>

<p>Data d'inizio: 2023-12-01</p>

<p>Data di fine: 2023-12-31</p>

</div>

</div>

<div class="card" onclick="openPopup('Fuga storica da Byblos', 'Vivi il fascino dell antica Byblos con il nostro esclusivo pacchetto di weekend. Include una visita guidata ai siti storici, un soggiorno presso il boutique Byblos Hotel e una sessione di degustazione di vini gratuita con vini libanesi locali.', '../static/images/byblos2.jpg');">

<img src="../static/images/byblos2.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title">Fuga storica da Byblos</h3>

<p class="card-description">Vivi il fascino dell'antica Byblos con il nostro esclusivo weekend

pacchetto di fuga.</p>

<p>Data d'inizio: 2023-12-05</p>

<p>Data di fine: 2024-01-05</p>

</div>

</div>

<div class="card" onclick="openPopup('Shopping sfrenato da VIP', 'Goditi un esperienza di shopping VIP nei quartieri della moda più esclusivi di Beirut. Questa offerta include assistenza personale per lo shopping, accesso a proiezioni private e uno sconto del 20% su tutti gli acquisti superiori a $ 500 presso le boutique di lusso partecipanti.', '../static/images/vip\_shopping.webp');">

<img src="../static/images/vip\_shopping.webp" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title">Shopping sfrenato da VIP</h3>

<p class="card-description">Goditi un'esperienza di shopping VIP nella moda più esclusiva di

Beirut

quartieri.</p>

<p>Data d'inizio: 2023-12-10</p>

<p>Data di fine: 2024-01-10</p>

</div>

</div>

<div class="card" onclick="openPopup('Avventura escursionistica sulle montagne di cedro', 'Parti per un esilarante avventura escursionistica nelle montagne dei cedri. Questo pacchetto include un trekking guidato, pernottamento in un eco-lodge e una cena tradizionale libanese sotto le stelle.', '../static/images/hiking.jpg');">

<img src="../static/images/hiking.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title">Avventura escursionistica sulle montagne di cedro</h3>

<p class="card-description">Parti per un'esilarante avventura escursionistica nelle montagne dei

cedri.</p>

<p>Data d'inizio: 2023-12-15</p>

<p>Data di fine: 2023-12-20</p>

</div>

</div>

<div class="card" onclick="openPopup('Notte esclusiva all Opera', 'Vivi una serata indimenticabile al rinomato Teatro dell Opera di Beirut. Questo pacchetto esclusivo include posti a sedere premium per l ultima rappresentazione dell opera, un tour dietro le quinte e un incontro post-spettacolo con il cast.', '../static/images/opera.jpg');">

<img src="../static/images/opera.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title">Notte esclusiva all'Opera</h3>

<p class="card-description">Vivi una serata indimenticabile alla rinomata Opera di Beirut

Casa.</p>

<p>Data d'inizio: 2023-12-20</p>

<p>Data di fine: 2024-01-20</p>

</div>

</div>

</div>

</div>

<button id="deals-scroll-right" class="scroll-button right">›</button>

</div>

<div class="header">

<h2 class="deals-title">Offerte per te</h2>

<p class="deals-subtitle">Dalle esclusive ASM alle esperienze uniche, alle fantastiche offerte per ristoranti e

negozi,

C'è qualcosa per tutti.</p>

</div>

</section>

<div class="modal fade" id="popupModal" tabindex="-1" role="dialog" aria-labelledby="popupModalLabel" aria-hidden="true">

<div class="modal-dialog" role="document">

<div class="modal-content">

<div class="modal-header">

<h5 class="modal-title" id="popupModalLabel"></h5>

<button type="button" class="close" data-dismiss="modal" aria-label="Close">

<span aria-hidden="true">×</span>

</button>

</div>

<div class="modal-body">

<img src="" alt="Popup Image" id="popupImage" class="img-fluid mb-2">

<p id="popupModalBody"></p>

</div>

</div>

</div>

</div>

<div class="tab-container">

<div class="tab-buttons">

<button class="tab-button active" onclick="openTab(event, 'tab-Parking')">Parcheggio</button>

<button class="tab-button" onclick="openTab(event, 'tab-Hotel')">Hotel</button>

<button class="tab-button" onclick="openTab(event, 'tab-Flight')">Volo</button>

<div class="tab-indicator"></div>

</div>

<div class="tab-content" id="tab-Parking" style="display:none;">

<h2 class="mb-4">Ricerca del parco</h2>

<form>

<div class="form-row">

<div class="form-group col-md-6">

<label for="fromDate">Dalla data</label>

<input type="datetime-local" class="form-control" id="fromDate">

</div>

<div class="form-group col-md-6">

<label for="toDate">Ad oggi</label>

<input type="datetime-local" class="form-control" id="toDate">

</div>

</div>

<button type="submit" class="btn btn-primary">Ricerca</button>

</form>

</div>

<div class="tab-content" id="tab-Hotel" style="display:none;">

<h2 class="mb-4">Ricerca alberghi</h2>

<form>

<div class="form-row">

<div class="form-group col-md-8">

<label for="location">Posizione</label>

<input type="text" class="form-control" id="location" placeholder="e.g. country, city, district or landmark">

</div>

</div>

<div class="form-row">

<div class="form-group col-md-4">

<label for="checkInDate">Data di arrivo</label>

<input type="date" class="form-control" id="checkInDate">

</div>

<div class="form-group col-md-4">

<label for="checkOutDate">Data di partenza</label>

<input type="date" class="form-control" id="checkOutDate">

</div>

</div>

<div class="form-row">

<div class="form-group col-md-4">

<label for="numberOfRooms">Numero di stanze</label>

<div class="input-group">

<div class="input-group-prepend">

<button class="btn btn-outline-secondary" type="button" id="decrementRooms">-</button>

</div>

<input type="text" class="form-control" id="numberOfRooms" value="1">

<div class="input-group-append">

<button class="btn btn-outline-secondary" type="button" id="incrementRooms">+</button>

</div>

</div>

</div>

<div class="form-group col-md-4">

<label for="numberOfAdults">Numero di adulti</label>

<div class="input-group">

<div class="input-group-prepend">

<button class="btn btn-outline-secondary" type="button" id="decrementAdults">-</button>

</div>

<input type="text" class="form-control" id="numberOfAdults" value="1">

<div class="input-group-append">

<button class="btn btn-outline-secondary" type="button" id="incrementAdults">+</button>

</div>

</div>

</div>

<div class="form-group col-md-4">

<label for="numberOfKids">Numero di bambini</label>

<div class="input-group">

<div class="input-group-prepend">

<button class="btn btn-outline-secondary" type="button" id="decrementKids">-</button>

</div>

<input type="text" class="form-control" id="numberOfKids" value="0">

<div class="input-group-append">

<button class="btn btn-outline-secondary" type="button" id="incrementKids">+</button>

</div>

</div>

</div>

</div>

<button type="submit" class="btn btn-primary">Ricerca</button>

</form>

</div>

<div class="tab-content" id="tab-Flight" style="display:none;">

<h2 class="mb-4">Ricerca voli</h2>

<form>

<div class="form-row">

<div class="form-group col-md-4">

<label for="from">Da</label>

<input type="text" class="form-control" id="from" placeholder="Departure" autocomplete="off">

<div id="searchResults" class="search-results"></div>

</div>

<div class="form-group col-md-4">

<label for="to">A</label>

<input type="text" class="form-control" id="to" placeholder="Destination" autocomplete="off">

<div id="toSearchResults" class="search-results"></div>

</div>

</div>

<div class="form-row">

<div class="form-group col-md-4">

<label class="mr-2">Tipo di viaggio:</label>

<div class="form-check form-check-inline">

<input class="form-check-input" type="radio" name="tripType" id="oneway" checked="">

<label class="form-check-label" for="oneway">Senso Unico</label>

</div>

<div class="form-check form-check-inline">

<input class="form-check-input" type="radio" name="tripType" id="return">

<label class="form-check-label" for="return">Ritorno</label>

</div>

</div>

</div>

<div class="form-row">

<div class="form-group col-md-4">

<label for="departDate">Data di partenza</label>

<input type="date" class="form-control" id="departDate">

</div>

<div class="form-group col-md-4">

<label for="returnDate">Data di ritorno</label>

<input type="date" class="form-control" id="returnDate" disabled="">

</div>

</div>

<button type="submit" class="btn btn-primary">Ricerca</button>

</form>

</div>

</div>

<footer class="site-footer">

<div class="footer-content">

<div class="footer-heading">

RESTA IN CONTATTO CON L'AEROPORTO ASM

</div>

<div class="footer-social">

<a class="fb" href="https://www.facebook.com"><img src="../static/images/FB2.png" alt="Faceboock"></a>

<a href="https://www.instagram.com"><img src="../static/images/insta.png" alt="Instagram"></a>

<a class="ln" href="https://www.linkedin.com"><img src="../static/images/linkin.png" alt="LinkedIn"></a>

<a class="tw" href="https://www.twitter.com"><img src="../static/images/tw.png" alt="Twitter"></a>

<a href="https://www.youtube.com"><img src="../static/images/yt.png" alt="YouTube"></a>

</div>

<div class="footer-links">

<div class="link-column">

<a href="#about-us">Chi siamo</a>

<a href="#contact">Contattaci</a>

<a href="#careers">Carriere</a>

<a href="#corporate">Aziendale</a>

</div>

<div class="link-column">

<a href="#faq">FAQs</a>

<button class="btn btn-primary" id="feedbackButton">Feedback</button>

<a href="#terms">Condizioni d'uso</a>

<a href="#privacy">Politica sulla riservatezza</a>

</div>

</div>

</div>

</footer>

<div class="modal fade" id="feedbackModal" tabindex="-1" role="dialog" aria-labelledby="feedbackModalLabel" aria-hidden="true">

<div class="modal-dialog" role="document">

<div class="modal-content">

<div class="modal-header">

<h5 class="modal-title" id="feedbackModalLabel">Feedback</h5>

<button type="button" class="close" data-dismiss="modal" aria-label="Close">

<span aria-hidden="true">×</span>

</button>

</div>

<div class="modal-body">

<form id="feedbackForm">

<div class="form-group">

<label for="rating">Valutazione:</label>

<div class="rating-container">

<span class="rating-star" data-rating="1">★</span>

<span class="rating-star" data-rating="2">★</span>

<span class="rating-star" data-rating="3">★</span>

<span class="rating-star" data-rating="4">★</span>

<span class="rating-star" data-rating="5">★</span>

</div>

<input type="hidden" id="rating" name="rating" required="">

</div>

<div class="form-group">

<label for="comment">Commento (facoltativo):</label>

<textarea class="form-control" id="comment" name="comment" rows="3"></textarea>

</div>

<button type="submit" class="btn btn-primary">Invia</button>

</form>

</div>

</div>

</div>

</div>

<svg xmlns="http://www.w3.org/2000/svg" width="0" height="0" display="none">

<symbol id="search" viewBox="0 0 32 32">

<path d="M 19.5 3 C 14.26514 3 10 7.2651394 10 12.5 C 10 14.749977 10.810825 16.807458 12.125 18.4375 L 3.28125 27.28125 L 4.71875 28.71875 L 13.5625 19.875 C 15.192542 21.189175 17.250023 22 19.5 22 C 24.73486 22 29 17.73486 29 12.5 C 29 7.2651394 24.73486 3 19.5 3 z M 19.5 5 C 23.65398 5 27 8.3460198 27 12.5 C 27 16.65398 23.65398 20 19.5 20 C 15.34602 20 12 16.65398 12 12.5 C 12 8.3460198 15.34602 5 19.5 5 z"></path>

</symbol>

</svg>

<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>

<script src="https://cdn.jsdelivr.net/npm/popper.js/dist/umd/popper.min.js"></script>

<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"></script>

<script src="../static/js/index.js"></script>

<script src="../static/js/navbar.js"></script>

</body></html>

Index.HTML:

<html lang="en"><head>

<meta charset="UTF-8">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>AeroSync Manager</title>

<link rel="stylesheet" href="../static/css/index.css">

<link rel="stylesheet" href="../static/css/navbar.css">

<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css">

<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"></script>

<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/popper.min.js"></script>

<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"></script>

</head>

<body>

<nav class="navbar navbar-expand-lg navbar-dark fixed-top">

<div class="container">

<a class="navbar-brand" href="/">ASM Airport</a>

<div class="navbar-collapse" id="navbarNav">

<ul class="navbar-nav mr-auto">

<li class="nav-item">

<a class="nav-link" href="flightInfo">Flights</a>

</li>

<li class="nav-item">

<a class="nav-link" href="dining">Dine</a>

</li>

<li class="nav-item">

<a class="nav-link" href="shopping">Shop</a>

</li>

</ul>

<ul class="navbar-nav ml-auto">

<li class="nav-item dropdown">

<a class="nav-link dropdown-toggle" href="" id="languageDropdown" role="button" data-toggle="dropdown" aria-haspopup="true" aria-expanded="false">

<img src="../static/images/UK\_Flag.svg" alt="Language" class="rounded-circle flag-icon">

</a>

<div class="dropdown-menu" aria-labelledby="languageDropdown">

<a class="dropdown-item" href="/">English</a>

<a class="dropdown-item" href="en=it">Italian</a>

</div>

</li>

<li class="nav-item">

<a class="nav-link" href="logout" id="userIconLink">

<img src="../static/images/icon.png" alt="User" class="rounded-circle user-icon small-icon" id="userIcon">

</a>

</li>

</ul>

</div>

</div>

</nav>

<div id="background-slideshow">

<div class="background-slide active" style="background-image: url('../static/images/f22.jpg');"></div>

<div class="background-slide" style="background-image: url('../static/images/home\_1.jpg');"></div>

<div class="background-slide" style="background-image: url('../static/images/home\_2.jpg');"></div>

<div class="background-slide" style="background-image: url('../static/images/home\_3.jpg');"></div>

<div class="background-slide" style="background-image: url('../static/images/home\_4.jpeg');"></div>

<div class="background-slide" style="background-image: url('../static/images/home\_5.jpeg');"></div>

</div>

<form class="search-form">

<input type="search" value="" placeholder="Search for flights" class="search-input">

<button type="submit" class="search-button">

<svg class="submit-button">

<use xmlns:xlink="http://www.w3.org/1999/xlink" xlink:href="#search"></use>

</svg>

</button>

<div class="search-icons">

<button type="button" class="icon-button" data-tooltip="Arrival">

<svg class="icon-svg" xmlns="http://www.w3.org/2000/svg" height="1em" viewBox="0 0 640 512">

<path d="M624 448H16c-8.84 0-16 7.16-16 16v32c0 8.84 7.16 16 16 16h608c8.84 0 16-7.16 16-16v-32c0-8.84-7.16-16-16-16zM44.81 205.66l88.74 80a62.607 62.607 0 0 0 25.47 13.93l287.6 78.35c26.48 7.21 54.56 8.72 81 1.36 29.67-8.27 43.44-21.21 47.25-35.71 3.83-14.5-1.73-32.71-23.37-54.96-19.28-19.82-44.35-32.79-70.83-40l-97.51-26.56L282.8 30.22c-1.51-5.81-5.95-10.35-11.66-11.91L206.05.58c-10.56-2.88-20.9 5.32-20.71 16.44l47.92 164.21-102.2-27.84-27.59-67.88c-1.93-4.89-6.01-8.57-11.02-9.93L52.72 64.75c-10.34-2.82-20.53 5-20.72 15.88l.23 101.78c.19 8.91 6.03 17.34 12.58 23.25z"></path>

</svg>

</button>

<button type="button" class="icon-button" data-tooltip="Departure">

<svg class="icon-svg" xmlns="http://www.w3.org/2000/svg" height="1em" viewBox="0 0 640 512">

<path d="M624 448H16c-8.84 0-16 7.16-16 16v32c0 8.84 7.16 16 16 16h608c8.84 0 16-7.16 16-16v-32c0-8.84-7.16-16-16-16zM80.55 341.27c6.28 6.84 15.1 10.72 24.33 10.71l130.54-.18a65.62 65.62 0 0 0 29.64-7.12l290.96-147.65c26.74-13.57 50.71-32.94 67.02-58.31 18.31-28.48 20.3-49.09 13.07-63.65-7.21-14.57-24.74-25.27-58.25-27.45-29.85-1.94-59.54 5.92-86.28 19.48l-98.51 49.99-218.7-82.06a17.799 17.799 0 0 0-18-1.11L90.62 67.29c-10.67 5.41-13.25 19.65-5.17 28.53l156.22 98.1-103.21 52.38-72.35-36.47a17.804 17.804 0 0 0-16.07.02L9.91 230.22c-10.44 5.3-13.19 19.12-5.57 28.08l76.21 82.97z"></path>

</svg>

</button>

</div>

</form>

<form class="API"></form>

<div id="weather-container">

</div>

<div class="container converter-container">

<h2 class="text-center mb-4">Currency Converter</h2>

<div class="form-group">

<label for="fromCurrency">From Currency:</label>

<select class="form-control" id="fromCurrency">

</select>

</div>

<div class="form-group">

<label for="toCurrency">To Currency:</label>

<select class="form-control" id="toCurrency">

<!-- Options will be dynamically added using JavaScript -->

</select>

</div>

<div class="form-group">

<label for="amount">Amount:</label>

<input type="number" class="form-control" id="amount" placeholder="Enter amount">

</div>

<button class="btn btn-primary btn-block" onclick="convertCurrency()">Convert</button>

<div class="result" style="display: none;" id="currencyResultContainer">

<h4>Result:</h4>

<p id="result"></p>

</div>

</div>

<section class="section">

<div class="header">

<h2 class="highlights-title">Highlights</h2>

<p class="highlights-subtitle">Find out more about the latest events in the country.</p>

</div>

<div class="carousel-container">

<button id="highlights-scroll-left" class="scroll-button left" aria-hidden="true">‹</button>

<div id="highlights-carousel" class="carousel">

<div class="list">

<div class="card" onclick="openPopup('Beirut Music Festival', 'Revel in the vibrant Beirut Music Festival, a spectacular celebration of local and international talent. Held in the heart of the city, this event features a mix of genres, from traditional Lebanese music to contemporary beats, offering a musical journey through Lebanons rich cultural tapestry. Enjoy live performances, interactive workshops, and a bustling food market showcasing local delicacies.', '../static/images/music\_festival.jpg');">

<img src="../static/images/music\_festival.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title">Beirut Music Festival</h3>

<p class="card-description">Revel in the vibrant Beirut Music Festival, a spectacular

celebration of local and international talent.</p>

</div>

</div>

<div class="card" onclick="openPopup('Cedars of God Hiking Adventure', 'Explore the majestic Cedars of God, a UNESCO World Heritage site in the Bsharri region. Join a guided hiking tour through these ancient forests, home to some of the oldest cedar trees in the world. The hike offers breathtaking views of the surrounding mountains and valleys, culminating in a picnic featuring local produce.', '../static/images/cedars.jpg');">

<img src="../static/images/cedars.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title">Cedars of God Hiking Adventure</h3>

<p class="card-description">Explore the majestic Cedars of God, a UNESCO World Heritage site in

the Bsharri region.</p>

</div>

</div>

<div class="card" onclick="openPopup('Byblos Historical Tours', 'Step back in time with guided historical tours of Byblos, one of the worlds oldest continuously inhabited cities. Discover ancient ruins, Phoenician temples, and medieval fortresses, each telling a story of Lebanons rich history. The tour includes a visit to the charming Byblos Souk, where artisans sell traditional crafts and souvenirs.', '../static/images/byblos.jpg');">

<img src="../static/images/byblos.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title">Byblos Historical Tours</h3>

<p class="card-description">Step back in time with guided historical tours of Byblos, one of the

world's oldest continuously inhabited cities.</p>

</div>

</div>

<div class="card" onclick="openPopup('Lebanese Wine and Vineyard Tour', 'Discover Lebanons renowned wineries with a guided tour through picturesque vineyards. Learn about traditional wine-making techniques and sample a variety of local wines, from robust reds to crisp whites. The tour includes visits to several wineries in the Bekaa Valley, each with its own unique story and flavor profile.', '../static/images/wine.jpg');">

<img src="../static/images/wine.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title">Lebanese Wine and Vineyard Tour</h3>

<p class="card-description">Discover Lebanon's renowned wineries with a guided tour through

picturesque vineyards. </p>

</div>

</div>

</div>

</div>

<button id="highlights-scroll-right" class="scroll-button right">›</button>

</div>

</section>

<section class="section">

<div class="carousel-container">

<button id="deals-scroll-left" class="scroll-button left" aria-hidden="true">‹</button>

<div id="deals-carousel" class="carousel">

<div class="list">

<div class="card" onclick="openPopup('Gourmet Getaway in Beirut', 'Indulge in a luxurious dining experience at Beiruts top-ratedrestaurant, Le Gourmet Libanais. Enjoy a 5-course meal featuring the finest Mediterraneanflavors, with each dish expertly crafted by renowned chefs. Perfect for special occasions ora lavish night out.', '../static/images/getaway.jpg');">

<img src="../static/images/getaway.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title">Gourmet Getaway in Beirut</h3>

<p class="card-description">Indulge in a luxurious dining experience at Beirut's top-rated

restaurant, 'Le Gourmet Libanais'.</p>

<p>StartDate: 2023-12-01</p>

<p>EndDate: 2023-12-31</p>

</div>

</div>

<div class="card" onclick="openPopup('Historic Byblos Escape', 'Experience the charm of ancient Byblos with our exclusive weekend getaway package. Includes a guided tour of historic sites, a stay at the boutique Byblos Hotel, and a complimentary wine-tasting session featuring local Lebanese wines.', '../static/images/byblos2.jpg');">

<img src="../static/images/byblos2.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title">Historic Byblos Escape</h3>

<p class="card-description">Experience the charm of ancient Byblos with our exclusive weekend

getaway package.</p>

<p>StartDate: 2023-12-05</p>

<p>EndDate: 2024-01-05</p>

</div>

</div>

<div class="card" onclick="openPopup('VIP Shopping Spree', 'Enjoy a VIP shopping experience in Beiruts most exclusive fashion districts. This deal includes personal shopping assistance, access to private showings, and a 20% discount on all purchases over $500 at participating luxury boutiques.', '../static/images/vip\_shopping.webp');">

<img src="../static/images/vip\_shopping.webp" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title">VIP Shopping Spree</h3>

<p class="card-description">Enjoy a VIP shopping experience in Beirut's most exclusive fashion

districts.</p>

<p>StartDate: 2023-12-10</p>

<p>EndDate: 2024-01-10</p>

</div>

</div>

<div class="card" onclick="openPopup('Cedar Mountains Hiking Adventure', 'Embark on an exhilarating hiking adventure in the Cedar Mountains. This package includes a guided trek, overnight accommodation in an eco-lodge, and a traditional Lebanese dinner under the stars.', '../static/images/hiking.jpg');">

<img src="../static/images/hiking.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title">Cedar Mountains Hiking Adventure</h3>

<p class="card-description">Embark on an exhilarating hiking adventure in the Cedar

Mountains.</p>

<p>StartDate: 2023-12-15</p>

<p>EndDate: 2023-12-20</p>

</div>

</div>

<div class="card" onclick="openPopup('Exclusive Night at the Opera', 'Experience an unforgettable evening at the renowned Beirut Opera House. This exclusive package includes premium seating for the latest opera performance, a backstage tour, and a post-show meet-and-greet with the cast.', '../static/images/opera.jpg');">

<img src="../static/images/opera.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title">Exclusive Night at the Opera</h3>

<p class="card-description">Experience an unforgettable evening at the renowned Beirut Opera

House.</p>

<p>StartDate: 2023-12-20</p>

<p>EndDate: 2024-01-20</p>

</div>

</div>

</div>

</div>

<button id="deals-scroll-right" class="scroll-button right">›</button>

</div>

<div class="header">

<h2 class="deals-title">Deals For You</h2>

<p class="deals-subtitle">From ASM Exclusives and unique experiences, to amazing dining and shopping deals,

there is something for everyone.</p>

</div>

</section>

<div class="modal fade" id="popupModal" tabindex="-1" role="dialog" aria-labelledby="popupModalLabel" aria-hidden="true">

<div class="modal-dialog" role="document">

<div class="modal-content">

<div class="modal-header">

<h5 class="modal-title" id="popupModalLabel"></h5>

<button type="button" class="close" data-dismiss="modal" aria-label="Close">

<span aria-hidden="true">×</span>

</button>

</div>

<div class="modal-body">

<img src="" alt="Popup Image" id="popupImage" class="img-fluid mb-2">

<p id="popupModalBody"></p>

</div>

</div>

</div>

</div>

<div class="tab-container">

<div class="tab-buttons">

<button class="tab-button active" onclick="openTab(event, 'tab-Parking')">Parking</button>

<button class="tab-button" onclick="openTab(event, 'tab-Hotel')">Hotel</button>

<button class="tab-button" onclick="openTab(event, 'tab-Flight')">Flight</button>

<div class="tab-indicator"></div>

</div>

<div class="tab-content" id="tab-Parking" style="display:none;">

<h2 class="mb-4" id="header-text">Park Search</h2>

<form id="parkingForm">

<div class="form-row">

<div class="form-group col-md-6">

<label for="fromDate">From Date</label>

<input type="datetime-local" class="form-control" id="fromDate">

</div>

<div class="form-group col-md-6">

<label for="toDate">To Date</label>

<input type="datetime-local" class="form-control" id="toDate">

</div>

</div>

<button type="submit" class="btn btn-primary">Search</button>

</form>

<div id="parkingResults" style="display: none;">

<div id="resultsContainer">

</div>

</div>

</div>

<div class="tab-content" id="tab-Hotel" style="display:none;">

<h2 class="mb-4">Hotel Search</h2>

<form>

<div class="form-row">

<div class="form-group col-md-8">

<label for="location">Location</label>

<input type="text" class="form-control" id="location" placeholder="e.g. country, city, district or landmark">

</div>

</div>

<div class="form-row">

<div class="form-group col-md-4">

<label for="checkInDate">Check-in Date</label>

<input type="date" class="form-control" id="checkInDate">

</div>

<div class="form-group col-md-4">

<label for="checkOutDate">Check-out Date</label>

<input type="date" class="form-control" id="checkOutDate">

</div>

</div>

<div class="form-row">

<div class="form-group col-md-4">

<label for="numberOfRooms">Number of Rooms</label>

<div class="input-group">

<div class="input-group-prepend">

<button class="btn btn-outline-secondary" type="button" id="decrementRooms">-</button>

</div>

<input type="text" class="form-control" id="numberOfRooms" value="1">

<div class="input-group-append">

<button class="btn btn-outline-secondary" type="button" id="incrementRooms">+</button>

</div>

</div>

</div>

<div class="form-group col-md-4">

<label for="numberOfAdults">Number of Adults</label>

<div class="input-group">

<div class="input-group-prepend">

<button class="btn btn-outline-secondary" type="button" id="decrementAdults">-</button>

</div>

<input type="text" class="form-control" id="numberOfAdults" value="1">

<div class="input-group-append">

<button class="btn btn-outline-secondary" type="button" id="incrementAdults">+</button>

</div>

</div>

</div>

<div class="form-group col-md-4">

<label for="numberOfKids">Number of Kids</label>

<div class="input-group">

<div class="input-group-prepend">

<button class="btn btn-outline-secondary" type="button" id="decrementKids">-</button>

</div>

<input type="text" class="form-control" id="numberOfKids" value="0">

<div class="input-group-append">

<button class="btn btn-outline-secondary" type="button" id="incrementKids">+</button>

</div>

</div>

</div>

</div>

<button type="submit" class="btn btn-primary">Search</button>

</form>

</div>

<div class="tab-content" id="tab-Flight" style="display:none;">

<h2 class="mb-4">Flight Search</h2>

<form>

<div class="form-row">

<div class="form-group col-md-4">

<label for="from">From</label>

<input type="text" class="form-control" id="from" placeholder="Departure" autocomplete="off">

<div id="searchResults" class="search-results"></div>

</div>

<div class="form-group col-md-4">

<label for="to">To</label>

<input type="text" class="form-control" id="to" placeholder="Destination" autocomplete="off">

<div id="toSearchResults" class="search-results"></div>

</div>

</div>

<div class="form-row">

<div class="form-group col-md-4">

<label class="mr-2">Trip Type:</label>

<div class="form-check form-check-inline">

<input class="form-check-input" type="radio" name="tripType" id="oneway" checked="">

<label class="form-check-label" for="oneway">One-way</label>

</div>

<div class="form-check form-check-inline">

<input class="form-check-input" type="radio" name="tripType" id="return">

<label class="form-check-label" for="return">Return</label>

</div>

</div>

</div>

<div class="form-row">

<div class="form-group col-md-4">

<label for="departDate">Departure Date</label>

<input type="date" class="form-control" id="departDate">

</div>

<div class="form-group col-md-4">

<label for="returnDate">Return Date</label>

<input type="date" class="form-control" id="returnDate" disabled="">

</div>

</div>

<button type="submit" class="btn btn-primary">Search</button>

</form>

</div>

</div>

<footer class="site-footer">

<div class="footer-content">

<div class="footer-heading">

STAY IN TOUCH WITH ASM AIRPORT

</div>

<div class="footer-social">

<a class="fb" href="https://www.facebook.com"><img src="../static/images/FB2.png" alt="Faceboock"></a>

<a href="https://www.instagram.com"><img src="../static/images/insta.png" alt="Instagram"></a>

<a class="ln" href="https://www.linkedin.com"><img src="../static/images/linkin.png" alt="LinkedIn"></a>

<a class="tw" href="https://www.twitter.com"><img src="../static/images/tw.png" alt="Twitter"></a>

<a href="https://www.youtube.com"><img src="../static/images/yt.png" alt="YouTube"></a>

</div>

<div class="footer-links">

<div class="link-column">

<a href="#about-us">About Us</a>

<a href="#contact">Contact Us</a>

<a href="#careers">Careers</a>

<a href="#corporate">Corporate</a>

</div>

<div class="link-column">

<a href="#faq">FAQs</a>

<button class="btn btn-primary" id="feedbackButton">Feedback</button>

<a href="#terms">Conditions of Use</a>

<a href="#privacy">Privacy Policy</a>

</div>

</div>

</div>

</footer>

<div class="modal fade" id="feedbackModal" tabindex="-1" role="dialog" aria-labelledby="feedbackModalLabel" aria-hidden="true">

<div class="modal-dialog" role="document">

<div class="modal-content">

<div class="modal-header">

<h5 class="modal-title" id="feedbackModalLabel">Feedback</h5>

<button type="button" class="close" data-dismiss="modal" aria-label="Close">

<span aria-hidden="true">×</span>

</button>

</div>

<div class="modal-body">

<form id="feedbackForm">

<div class="form-group">

<label for="rating">Rating:</label>

<div class="rating-container">

<span class="rating-star" data-rating="1">★</span>

<span class="rating-star" data-rating="2">★</span>

<span class="rating-star" data-rating="3">★</span>

<span class="rating-star" data-rating="4">★</span>

<span class="rating-star" data-rating="5">★</span>

</div>

<input type="hidden" id="rating" name="rating" required="">

</div>

<div class="form-group">

<label for="comment">Comment (optional):</label>

<textarea class="form-control" id="comment" name="comment" rows="3"></textarea>

</div>

<button type="submit" class="btn btn-primary">Submit</button>

</form>

</div>

</div>

</div>

</div>

<div id="floatingMessageBox" class="message-box">

</div>

<svg xmlns="http://www.w3.org/2000/svg" width="0" height="0" display="none">

<symbol id="search" viewBox="0 0 32 32">

<path d="M 19.5 3 C 14.26514 3 10 7.2651394 10 12.5 C 10 14.749977 10.810825 16.807458 12.125 18.4375 L 3.28125 27.28125 L 4.71875 28.71875 L 13.5625 19.875 C 15.192542 21.189175 17.250023 22 19.5 22 C 24.73486 22 29 17.73486 29 12.5 C 29 7.2651394 24.73486 3 19.5 3 z M 19.5 5 C 23.65398 5 27 8.3460198 27 12.5 C 27 16.65398 23.65398 20 19.5 20 C 15.34602 20 12 16.65398 12 12.5 C 12 8.3460198 15.34602 5 19.5 5 z"></path>

</symbol>

</svg>

<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>

<script src="https://cdn.jsdelivr.net/npm/popper.js/dist/umd/popper.min.js"></script>

<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"></script>

<script src="https://cdn.jsdelivr.net/npm/@supabase/supabase-js@2"></script>

<script src="../static/js/index.js"></script>

<script src="../static/js/navbar.js"></script>

</body></html>

Login.html:

<html lang="en"><head>

<title>Login</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1">

<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/5.15.3/css/all.min.css">

<link rel="stylesheet" type="text/css" href="../static/css/login.css">

</head>

<body>

<div class="limiter">

<div class="container-login100" style="background-image: url('../static/images/home\_5.png');">

<div class="wrap-login100 p-t-30 p-b-50">

<span class="login100-form-title p-b-41">

Account Login

</span>

<form class="login100-form validate-form p-b-33 p-t-5" action="/signin" method="post">

<div class="wrap-input100 validate-input" data-validate="Enter email">

<input class="input100" type="email" name="email-input" placeholder="Email" autocomplete="off" required="">

<span class="focus-input100" data-placeholder="✉"></span>

</div>

<div class="container-login100-form-btn m-t-32 m-b-10">

<button class="login100-form-btn" style="background-color: grey;">

Login

</button>

</div>

<div class="text-center">

<p>or log in with:</p>

<button type="button" class="btn btn-link btn-floating mx-1" onclick="window.location.href = '/signinWithGoogle';">

<svg xmlns="http://www.w3.org/2000/svg" height="18" width="17" viewBox="0 0 488 512">

<path d="M488 261.8C488 403.3 391.1 504 248 504 110.8 504 0 393.2 0 256S110.8 8 248 8c66.8 0 123 24.5 166.3 64.9l-67.5 64.9C258.5 52.6 94.3 116.6 94.3 256c0 86.5 69.1 156.6 153.7 156.6 98.2 0 135-70.4 140.8-106.9H248v-85.3h236.1c2.3 12.7 3.9 24.9 3.9 41.4z"></path>

</svg>

</button>

</div>

</form>

</div>

</div>

</div>

<div id="dropDownSelect1"></div>

<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>

<script src="https://cdn.jsdelivr.net/npm/popper.js/dist/umd/popper.min.js"></script>

<script src="../static/js/login.js"></script>

</body></html>

Perfume\_haven.HTML:

<html><head>

<meta charset="UTF-8">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Beirut International Airport</title>

<link rel="stylesheet" href="../static/css/index.css">

<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">

<link rel="stylesheet" href="../static/css/perfume\_haven.css">

<link rel="stylesheet" href="../static/css/navbar.css">

<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">

<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"></script>

<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/popper.min.js"></script>

<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"></script>

</head>

<body>

<nav class="navbar navbar-expand-lg navbar-dark fixed-top">

<div class="container">

<a class="navbar-brand" href="/">ASM Airport</a>

<div class="navbar-collapse" id="navbarNav">

<ul class="navbar-nav mr-auto">

<li class="nav-item">

<a class="nav-link" href="flightInfo">Flights</a>

</li>

<li class="nav-item">

<a class="nav-link" href="dining">Dine</a>

</li>

<li class="nav-item">

<a class="nav-link" href="shopping">Shop</a>

</li>

</ul>

<ul class="navbar-nav ml-auto">

<li class="nav-item dropdown">

<a class="nav-link dropdown-toggle" href="" id="languageDropdown" role="button" data-toggle="dropdown" aria-haspopup="true" aria-expanded="false">

<img src="../static/images/UK\_Flag.svg" alt="Language" class="rounded-circle flag-icon">

</a>

<div class="dropdown-menu" aria-labelledby="languageDropdown">

<a class="dropdown-item" href="/">English</a>

<a class="dropdown-item" href="en=it">Italian</a>

</div>

</li>

<li class="nav-item">

<a class="nav-link" href="wishlist">

<img src="../static/images/heart-ico-navbar.png" alt="User" class="heart-ico">

</a>

</li>

<li class="nav-item">

<a class="nav-link" href="logout" id="userIconLink">

<img src="../static/images/icon.png" alt="User" class="rounded-circle user-icon small-icon" id="userIcon">

</a>

</li>

</ul>

</div>

</div>

</nav>

<div id="image-container">

<img src="../static/images/perfume-haven-background.jpg" alt="Header Image">

</div>

<form class="search-form">

<input type="search" value="" placeholder="Search for perfumes" class="search-input">

<button type="submit" class="search-button">

<svg class="submit-button">

<use xmlns:xlink="http://www.w3.org/1999/xlink" xlink:href="#search"></use>

</svg>

</button>

</form>

<h2>For Him</h2>

<section class="section">

<div class="carousel-container">

<button id="highlights-scroll-left" class="scroll-button left" aria-hidden="true">‹</button>

<div id="highlights-carousel" class="carousel">

<div class="list">

<div class="card">

<img src="../static/images/perfume1-him.webp" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title"> Atlas </h3>

<p class="card-description"> Price <br> Stock </p>

<button class="favorite-button" onclick="toggleFavorite(this)">❤</button>

</div>

</div>

<div class="card">

<img src="../static/images/perfume2-him.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title"> Zenith </h3>

<p class="card-description"> Price <br> Stock </p>

<button class="favorite-button" onclick="toggleFavorite(this)">❤</button>

</div>

</div>

<div class="card">

<img src="../static/images/perfume3-him.webp" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title"> Wisk </h3>

<p class="card-description"> Price <br> Stock </p>

<button class="favorite-button" onclick="toggleFavorite(this)">❤</button>

</div>

</div>

<div class="card">

<img src="../static/images/perfume4-him.webp" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title"> Rogue Essence </h3>

<p class="card-description"> Price <br> Stock </p>

<button class="favorite-button" onclick="toggleFavorite(this)">❤</button>

</div>

</div>

<div class="card">

<img src="../static/images/perfume5-him.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title"> Water Blues </h3>

<p class="card-description"> Price <br> Stock </p>

<button class="favorite-button" onclick="toggleFavorite(this)">❤</button>

</div>

</div>

<div class="card">

<img src="../static/images/perfume6-him.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title"> Vanguard </h3>

<p class="card-description"> Price <br> Stock </p>

<button class="favorite-button" onclick="toggleFavorite(this)">❤</button>

</div>

</div>

</div>

</div>

<button id="highlights-scroll-right" class="scroll-button right">›</button>

</div>

</section>

<h2> For Her </h2>

<section class="section">

<div class="carousel-container">

<button id="her-highlights-scroll-left" class="scroll-button left" aria-hidden="true">‹</button>

<div id="her-highlights-carousel" class="carousel">

<div class="list">

<div class="card">

<img src="../static/images/perfume1-her.webp" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title"> Flora </h3>

<p class="card-description"> Price <br> Stock </p>

<button class="favorite-button" onclick="toggleFavorite(this)">❤</button>

</div>

</div>

<div class="card">

<img src="../static/images/perfume2-her.webp" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title"> Aqua </h3>

<p class="card-description"> Price <br> Stock </p>

<button class="favorite-button" onclick="toggleFavorite(this)">❤</button>

</div>

</div>

<div class="card">

<img src="../static/images/perfume3-her.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title"> Bloss Wood </h3>

<p class="card-description"> Price <br> Stock </p>

<button class="favorite-button" onclick="toggleFavorite(this)">❤</button>

</div>

</div>

<div class="card">

<img src="../static/images/perfume4-her.jpeg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title"> Peacock </h3>

<p class="card-description"> Price <br> Stock </p>

<button class="favorite-button" onclick="toggleFavorite(this)">❤</button>

</div>

</div>

<div class="card">

<img src="../static/images/perfume5-her.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title"> Crystal Majestia </h3>

<p class="card-description"> Price <br> Stock </p>

<button class="favorite-button" onclick="toggleFavorite(this)">❤</button>

</div>

</div>

<div class="card">

<img src="../static/images/perfume6-her.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title"> Moonlight </h3>

<p class="card-description"> Price <br> Stock </p>

<button class="favorite-button" onclick="toggleFavorite(this)">❤</button>

</div>

</div>

<div class="card">

<img src="../static/images/perfume7-her.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title"> Pinkie </h3>

<p class="card-description"> Price <br> Stock </p>

<button class="favorite-button" onclick="toggleFavorite(this)">❤</button>

</div>

</div>

</div>

</div>

<button id="her-highlights-scroll-right" class="scroll-button right">›</button>

</div>

</section>

<h2> Gift Sets </h2>

<section class="section">

<div class="carousel-container">

<button id="gift-highlights-scroll-left" class="scroll-button left" aria-hidden="true">‹</button>

<div id="gift-highlights-carousel" class="carousel">

<div class="list">

<div class="card">

<img src="../static/images/perfume4-him.webp" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title">Card Title</h3>

<p class="card-description">Some description here...</p>

<button class="favorite-button" onclick="toggleFavorite(this)">❤</button>

</div>

</div>

<div class="card">

<img src="../static/images/perfume3-him.webp" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title">Card Title</h3>

<p class="card-description">Some description here...</p>

<button class="favorite-button" onclick="toggleFavorite(this)">❤</button>

</div>

</div>

<div class="card">

<img src="../static/images/perfume2-him.jpg" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title">Card Title</h3>

<p class="card-description">Some description here...</p>

<button class="favorite-button" onclick="toggleFavorite(this)">❤</button>

</div>

</div>

<div class="card">

<img src="../static/images/perfume1-him.webp" alt="Highlight Image">

<div class="card-content">

<h3 class="card-title">Card Title</h3>

<p class="card-description">Some description here...</p>

<button class="favorite-button" onclick="toggleFavorite(this)">❤</button>

</div>

</div>

</div>

</div>

<button id="gift-highlights-scroll-right" class="scroll-button right">›</button>

</div>

</section>

<script src="https://cdn.jsdelivr.net/npm/@supabase/supabase-js@2"></script>

<script src="../static/js/perfume\_haven.js"></script>

<script src="../static/js/navbar.js"></script>

</body></html>

Shopping.HTML:

<html lang="en"><head>

<meta charset="UTF-8">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/5.15.4/css/all.min.css">

<link rel="stylesheet" href="../static/css/dining.css">

<link rel="stylesheet" href="../static/css/navbar.css">

<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">

<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"></script>

<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/popper.min.js"></script>

<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"></script>

<title>Shopping</title>

</head>

<body>

<nav class="navbar navbar-expand-lg navbar-dark fixed-top">

<div class="container">

<a class="navbar-brand" href="/">ASM Airport</a>

<div class="navbar-collapse" id="navbarNav">

<ul class="navbar-nav mr-auto">

<li class="nav-item">

<a class="nav-link" href="flightInfo">Flights</a>

</li>

<li class="nav-item">

<a class="nav-link" href="dining">Dine</a>

</li>

<li class="nav-item">

<a class="nav-link" href="shopping">Shop</a>

</li>

</ul>

<ul class="navbar-nav ml-auto">

<li class="nav-item dropdown">

<a class="nav-link dropdown-toggle" href="" id="languageDropdown" role="button" data-toggle="dropdown" aria-haspopup="true" aria-expanded="false">

<img src="../static/images/UK\_Flag.svg" alt="Language" class="rounded-circle flag-icon">

</a>

<div class="dropdown-menu" aria-labelledby="languageDropdown">

<a class="dropdown-item" href="/">English</a>

<a class="dropdown-item" href="en=it">Italian</a>

</div>

</li>

<li class="nav-item">

<a class="nav-link" href="wishlist">

<img src="../static/images/heart-ico-navbar.png" alt="User" class="heart-ico">

</a>

</li>

<li class="nav-item">

<a class="nav-link" href="logout" id="userIconLink">

<img src="../static/images/icon.png" alt="User" class="rounded-circle user-icon small-icon" id="userIcon">

</a>

</li>

</ul>

</div>

</div>

</nav>

<div id="background-slideshow">

<div class="background-slide active" style="background-image: url('../static/images/shopping.jpg')"></div>

</div>

<h2>SHOPPING DIRECTORY</h2>

<form class="search-form">

<input type="search" value="" placeholder="Search for Shops" class="search-input">

<button type="submit" class="search-button">

<svg class="submit-button">

<use xmlns:xlink="http://www.w3.org/1999/xlink" xlink:href="#search"></use>

</svg>

</button>

<div class="search-icons">

<button type="button" class="icon-button" data-tooltip="Arrival">

<svg xmlns="http://www.w3.org/2000/svg" height="16" width="14" viewBox="0 0 448 512">

<!--!Font Awesome Free 6.5.1 by @fontawesome - https://fontawesome.com License - https://fontawesome.com/license/free Copyright 2023 Fonticons, Inc.-->

<path d="M388.3 104.1a4.7 4.7 0 0 0 -4.4-4c-2 0-37.2-.8-37.2-.8s-21.6-20.8-29.6-28.8V503.2L442.8 472S388.7 106.5 388.3 104.1zM288.7 70.5a116.7 116.7 0 0 0 -7.2-17.6C271 32.9 255.4 22 237 22a15 15 0 0 0 -4 .4c-.4-.8-1.2-1.2-1.6-2C223.4 11.6 213 7.6 200.6 8c-24 .8-48 18-67.3 48.8-13.6 21.6-24 48.8-26.8 70.1-27.6 8.4-46.8 14.4-47.2 14.8-14 4.4-14.4 4.8-16 18-1.2 10-38 291.8-38 291.8L307.9 504V65.7a41.7 41.7 0 0 0 -4.4 .4S297.9 67.7 288.7 70.5zM233.4 87.7c-16 4.8-33.6 10.4-50.8 15.6 4.8-18.8 14.4-37.6 25.6-50 4.4-4.4 10.4-9.6 17.2-12.8C232.2 54.9 233.8 74.5 233.4 87.7zM200.6 24.4A27.5 27.5 0 0 1 215 28c-6.4 3.2-12.8 8.4-18.8 14.4-15.2 16.4-26.8 42-31.6 66.5-14.4 4.4-28.8 8.8-42 12.8C131.3 83.3 163.8 25.2 200.6 24.4zM154.2 244.6c1.6 25.6 69.3 31.2 73.3 91.7 2.8 47.6-25.2 80.1-65.7 82.5-48.8 3.2-75.7-25.6-75.7-25.6l10.4-44s26.8 20.4 48.4 18.8c14-.8 19.2-12.4 18.8-20.4-2-33.6-57.2-31.6-60.8-86.9-3.2-46.4 27.2-93.3 94.5-97.7 26-1.6 39.2 4.8 39.2 4.8L221.4 225.4s-17.2-8-37.6-6.4C154.2 221 153.8 239.8 154.2 244.6zM249.4 82.9c0-12-1.6-29.2-7.2-43.6 18.4 3.6 27.2 24 31.2 36.4Q262.6 78.7 249.4 82.9z"></path>

</svg>

</button>

<button type="button" class="icon-button" data-tooltip="Departure">

<svg xmlns="http://www.w3.org/2000/svg" height="16" width="18" viewBox="0 0 576 512">

<!--!Font Awesome Free 6.5.1 by @fontawesome - https://fontawesome.com License - https://fontawesome.com/license/free Copyright 2023 Fonticons, Inc.-->

<path d="M0 24C0 10.7 10.7 0 24 0H69.5c22 0 41.5 12.8 50.6 32h411c26.3 0 45.5 25 38.6 50.4l-41 152.3c-8.5 31.4-37 53.3-69.5 53.3H170.7l5.4 28.5c2.2 11.3 12.1 19.5 23.6 19.5H488c13.3 0 24 10.7 24 24s-10.7 24-24 24H199.7c-34.6 0-64.3-24.6-70.7-58.5L77.4 54.5c-.7-3.8-4-6.5-7.9-6.5H24C10.7 48 0 37.3 0 24zM128 464a48 48 0 1 1 96 0 48 48 0 1 1 -96 0zm336-48a48 48 0 1 1 0 96 48 48 0 1 1 0-96z"></path>

</svg>

</button>

</div>

</form>

<div class="filter-container">

<button class="filter-button" onclick="toggleFilter(this)"> Filters +</button>

<div class="filter-options">

<button class="filter-category" data-category="beauty"> Beauty</button>

<button class="filter-category" data-category="electronics"> Electronics</button>

<button class="filter-category" data-category="clothes"> Clothes</button>

<button class="filter-category" data-category="edibles"> Edibles</button>

<button class="filter-category" data-category="jewelry"> Jewelry</button>

<button class="filter-category" data-category="toys"> Toys</button>

<button class="filter-category" data-category="books"> Books</button>

</div>

<div class="filter-buttons">

<button class="apply-button" onclick="applyFilters()"> Apply</button>

<button class="reset-button" onclick="resetFilters()"> Reset</button>

</div>

</div>

<div class="container">

<div class="box-container">

<div class="box" data-category="beauty">

<div class="image">

<img src="../static/images/perfume.jpeg" alt="">

</div>

<div class="content">

<h3> Perfume Haven </h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<a href="perfume-haven" class="btn">Shop</a>

</div>

</div>

<div class="box" data-category="clothes">

<div class="image">

<img src="../static/images/clothes.png" alt="">

</div>

<div class="content">

<h3> Wardobe Dream </h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<a href="#" class="btn">Shop</a>

</div>

</div>

<div class="box" data-category="beauty">

<div class="image">

<img src="../static/images/makeup.webp" alt="">

</div>

<div class="content">

<h3> Wakeup Makeup </h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<a href="#" class="btn">Shop</a>

</div>

</div>

<div class="box" data-category="toys">

<div class="image">

<img src="../static/images/gift.jpg" alt="">

</div>

<div class="content">

<h3> Gift Shop </h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<a href="#" class="btn">Shop</a>

</div>

</div>

<div class="box" data-category="beauty">

<div class="image">

<img src="../static/images/dutyfree.webp" alt="">

</div>

<div class="content">

<h3> Duty Free </h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<a href="#" class="btn">Shop</a>

</div>

</div>

<div class="box" data-category="edibles">

<div class="image">

<img src="../static/images/chocolate.jpg" alt="">

</div>

<div class="content">

<h3> Chocolate Factory </h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<a href="#" class="btn">Shop</a>

</div>

</div>

<div class="box" data-category="jewelry">

<div class="image">

<img src="../static/images/watches.webp" alt="">

</div>

<div class="content">

<h3> The Hour </h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<a href="#" class="btn">Shop</a>

</div>

</div>

<div class="box" data-category="electronics">

<div class="image">

<img src="../static/images/virgin.jpg" alt="">

</div>

<div class="content">

<h3> Virgin Megastore </h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<a href="#" class="btn">Shop</a>

</div>

</div>

<div class="box" data-category="jewelry">

<div class="image">

<img src="../static/images/pandora.png" alt="">

</div>

<div class="content">

<h3> Pandora </h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<a href="#" class="btn">Shop</a>

</div>

</div>

<div class="box" data-category="clothes">

<div class="image">

<img src="../static/images/hermes.jpg" alt="">

</div>

<div class="content">

<h3> Hermes </h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<a href="#" class="btn">Shop</a>

</div>

</div>

<div class="box" data-category="clothes">

<div class="image">

<img src="../static/images/shoes.jpg" alt="">

</div>

<div class="content">

<h3> ShoeShop </h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<a href="#" class="btn">Shop</a>

</div>

</div>

<div class="box" data-category="books">

<div class="image">

<img src="../static/images/books.webp" alt="">

</div>

<div class="content">

<h3> Barnes &amp; Novles </h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<a href="#" class="btn">Shop</a>

</div>

</div>

<div class="box" data-category="toys">

<div class="image">

<img src="../static/images/joueclub.jpeg" alt="">

</div>

<div class="content">

<h3> JoueClub </h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<a href="#" class="btn">Shop</a>

</div>

</div>

<div class="box" data-category="edibles">

<div class="image">

<img src="../static/images/candy.jpg" alt="">

</div>

<div class="content">

<h3> Crazy Candy </h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<a href="#" class="btn">Shop</a>

</div>

</div>

<div class="box" data-category="jewelry">

<div class="image">

<img src="../static/images/cartier.jpg" alt="">

</div>

<div class="content">

<h3> Cartier </h3>

<p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Quod, adipisci!</p>

<a href="#" class="btn">Shop</a>

</div>

</div>

</div>

<div id="load-more"> load more</div>

</div>

<script src="../static/js/dining.js"></script>

<script src="../static/js/navbar.js"></script>

</body></html>

Signup.HTML:

<html lang="en"><head>

<title>Login</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1">

<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/5.15.3/css/all.min.css">

<link rel="stylesheet" type="text/css" href="../static/css/login.css">

</head>

<body>

<div class="limiter">

<div class="container-login100" style="background-image: url('../static/images/home\_5.png');">

<div class="wrap-login100 p-t-30 p-b-50">

<span class="login100-form-title p-b-41">

Create Account

</span>

<form class="login100-form validate-form p-b-33 p-t-5" id="create-account-form">

<div class="wrap-input100 validate-input" data-validate="Enter username">

<input id="username-input" class="input100" type="text" name="username" placeholder="Username" autocomplete="off" required="">

<span class="focus-input100" data-placeholder="@"></span>

</div>

<div class="container-login100-form-btn m-t-32">

<button id="create-account-btn" class="login100-form-btn" style="background-color: grey;">

Sign Up

</button>

</div>

</form>

</div>

</div>

</div>

<div id="dropDownSelect1"></div>

<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>

<script src="https://cdn.jsdelivr.net/npm/popper.js/dist/umd/popper.min.js"></script>

<script src="../static/js/login.js"></script>

<script src="../static/js/create\_account.js"></script>

</body></html>

Waiting\_page.HTML:

<html lang="en"><head>

<meta charset="UTF-8">

<title>Signing in...</title>

</head>

<body>

<h4>Signing in...</h4>

<script src="../static/js/waiting\_page.js"></script>

</body></html>

Wishlist.HTML:

<html><head>

<title>Wishlist</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1">

<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.4.1/css/bootstrap.min.css">

<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.4.1/js/bootstrap.bundle.min.js">

<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/jquery/3.2.1/jquery.min.js">

<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-awesome.min.css">

<link rel="stylesheet" href="../static/css/wishlist.css">

<link rel="stylesheet" href="../static/css/navbar.css">

</head>

<body>

<nav class="navbar navbar-expand-lg navbar-dark fixed-top">

<div class="container">

<a class="navbar-brand" href="/">ASM Airport</a>

<div class="navbar-collapse" id="navbarNav">

<ul class="navbar-nav mr-auto">

<li class="nav-item">

<a class="nav-link" href="flightInfo">Flights</a>

</li>

<li class="nav-item">

<a class="nav-link" href="dining">Dine</a>

</li>

<li class="nav-item">

<a class="nav-link" href="shopping">Shop</a>

</li>

</ul>

<ul class="navbar-nav ml-auto">

<li class="nav-item dropdown">

<a class="nav-link dropdown-toggle" href="" id="languageDropdown" role="button" data-toggle="dropdown" aria-haspopup="true" aria-expanded="false">

<img src="../static/images/UK\_Flag.svg" alt="Language" class="rounded-circle flag-icon">

</a>

<div class="dropdown-menu" aria-labelledby="languageDropdown">

<a class="dropdown-item" href="/">English</a>

<a class="dropdown-item" href="en=it">Italian</a>

</div>

</li>

<li class="nav-item">

<a class="nav-link" href="logout" id="userIconLink">

<img src="../static/images/icon.png" alt="User" class="rounded-circle user-icon small-icon" id="userIcon">

</a>

</li>

</ul>

</div>

</div>

</nav>

<div class="wishlist-heart">

<i class="heart-ico-wl"></i>

</div>

<div class="wishlist-title">

<h2>My Wishlist</h2>

</div>

<div class="container mt-5 mb-5">

<div class="d-flex justify-content-center row">

<div class="col-md-10" id="productContainer">

</div>

</div>

</div>

<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>

<script src="https://cdn.jsdelivr.net/npm/popper.js/dist/umd/popper.min.js"></script>

<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"></script>

<script src="../static/js/navbar.js"></script>

<script src="https://cdn.jsdelivr.net/npm/@supabase/supabase-js@2"></script>

<script src="../static/js/wishlist.js"></script>

</body></html>

**C- Static:**

**1-CSS:**

Dining.CSS:

body {

  font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;

  margin: 0;

  padding: 0;

  background-color: #f0f0f0;

  overflow-x: hidden;

}

#background-slideshow {

  position: relative;

  width: 100%;

  height: 90vh;

  overflow: hidden;

}

.background-slide {

  width: 100%;

  height: 100%;

  background-size: cover;

  background-position: center;

  position: absolute;

  opacity: 0;

  transition: opacity 0s ease-in-out;

}

h2 {

  color: #fff;

  position: relative;

  top: 5%;

  left: 30%;

  width: 550px;

  height: 60px;

  line-height: 60px;

  border-radius: 40px;

  box-shadow: 0 6px 8px rgba(0, 0, 0, 0.15);

  transform: translate(-50%, -400%);

  transition: all 0.3s ease;

  font-size: 50px;

  font-weight: very very bold;

}

.search-form {

  position: relative;

  left: 30%;

  width: 400px;

  height: 40px;

  border-radius: 40px;

  box-shadow: 0 6px 8px rgba(0, 0, 0, 0.15);

  transform: translate(-50%, -400%);

  background: #fff;

  transition: all 0.3s ease;

  margin-top: -5%;

  margin-left: -5%;

  &.focus {

    box-shadow: 0 3px 4px rgba(0, 0, 0, 0.15);

  }

}

.search-input {

  position: absolute;

  top: 10px;

  left: 38px;

  font-size: 15px;

  background: none;

  color: #5a6674;

  width: 195px;

  height: 20px;

  border: none;

  appearance: none;

  outline: none;

  &::-webkit-search-cancel-button {

    appearance: none;

  }

}

.search-button {

  position: absolute;

  display: flex;

  justify-content: center;

  top: 10px;

  left: 11px;

  height: 20px;

  width: 20px;

  padding: 0;

  margin: 0;

  border: none;

  background: none;

  outline: none!important;

  cursor: pointer;

  & svg {

    width: 20px;

    height: 20px;

    fill: #5a6674;

  }

}

.background-slide.active {

  animation: zoomAnimation 7s ease-in-out forwards;

  opacity: 1;

}

.search-form .search-icons {

    display: flex;

    align-items: center;

    position: absolute;

    right: 10px;

    top: 50%;

    transform: translateY(-50%);

}

.icon-button + .icon-button {

  margin-left: 5px;

}

.container{

  max-width: 1200px;

  margin: 0 auto;

  text-align: center;

  padding:25px 20px;

}

.container .heading{

  font-size: 40px;

  margin-bottom: 20px;

  color:#334;

}

.container .box-container{

  display: grid;

  grid-template-columns: repeat(auto-fit, minmax(350px, 1fr));

  gap:20px;

}

.container .box-container .box{

  background-color: #fff;

  padding:20px;

  border-radius: 5px;

  box-shadow: 0 5px 10px rgba(0,0,0,.2);

  display: none;

}

.container .box-container .box:nth-child(1),

.container .box-container .box:nth-child(2),

.container .box-container .box:nth-child(3),

.container .box-container .box:nth-child(4),

.container .box-container .box:nth-child(5),

.container .box-container .box:nth-child(6)

{

  display: inline-block;

}

.container .box-container .box .image{

  margin-bottom: 20px;

  overflow: hidden;

  height: 250px;

  border-radius: 5px;

}

.container .box-container .box .image img{

  height: 100%;

  width: 100%;

  object-fit: cover;

}

.container .box-container .box:hover .image img{

  transform: scale(1.1);

}

.container .box-container .box .content h3{

  font-size: 20px;

  color:#334;

}

.container .box-container .box .content p{

  font-size: 15px;

  color:#777;

  line-height: 2;

  padding:15px 0;

}

.container .box-container .box .content .btn{

  display: inline-block;

  padding:10px 30px;

  border:1px solid #334;

  color:#334;

  font-size: 16px;

}

.container .box-container .box .content .btn:hover{

  background-color: #334;

  border-color: #334;

  color:#fff;

}

.container .box-container .box .content .icons{

  display: flex;

  align-items: center;

  justify-content: space-between;

  margin-top: 20px;

  padding-top: 15px;

  border-top:1px solid #334;

}

.container .box-container .box.visible{

  display:inline-block;

}

.container .box-container .box .content .icons span{

  font-size: 14px;

  color:#777;

}

.container .box-container .box .content .icons span i{

  color:crimson;

  padding-right: 5px;

}

#load-more{

  margin-top: 20px;

  display: inline-block;

  padding:13px 30px;

  border:1px solid #334;

  color:#334;

  font-size: 16px;

  background-color: #fff;

  cursor: pointer;

}

#load-more:hover{

  background-color: #334;

  border-color: #334;

  color:#fff;

}

@media (max-width:450px){

  .container .heading{

    font-size: 25px;

  }

  .container .box-container{

    grid-template-columns: 1fr;

  }

  .container .box-container .box .image{

    height: 200px;

  }

  .container .box-container .box .content p{

    font-size: 12px;

  }

  .container .box-container .box .content .icons span{

    font-size: 12px;

  }

}

.container#blur.active{

  filter: blur(20px);

  pointer-events: none;

  user-select: none;

}

.btn{

  cursor: pointer;

}

#popup {

  position: fixed;

  top: 50%;

  left: 50%;

  transform: translate(-50%, -50%);

  width: 400px; /\* Set a specific width for the popup \*/

  padding: 50px;

  display: none; /\* Use display property for visibility control \*/

  background-color: #fff;

  border-radius: 10px;

  box-shadow: 50px rgba(0, 0, 0, 1);

}

#popup img {

  width: 100%;

  height: auto;

  border-radius: 5px;

}

#popup.active {

  display: block; /\* Show the popup when active \*/

  opacity: 1;

  transition: 0.5s;

}

#popup span{

  position: absolute;

  top: 0%;

  left: 5%;

  font-size: 40px;

  font-weight: bolder;

  color:black;

  cursor: pointer;

}

.filter-container  {

  text-align: center;

  margin-top: 20px;

  margin-bottom: 40px;

}

.filter-button{

  background-color: #334;

  color: #fff;

  border-radius: 3px;

  padding: 5px 10px;

  cursor: pointer;

  font-weight: bold;

}

.filter-options{

  display: none;

  margin: 15px;

}

.filter-category {

  background-color: white;

  border: 1px solid rgb(148, 148, 148);

  border-radius: 3px;

  color: #333;

  padding: 5px 15px;

  margin-right: 15px;

  cursor: pointer;

}

.filter-buttons{

  display: none;

  margin: 15px;

}

.apply-button, .reset-button {

  background-color: #334;

  color: #fff;

  border: none;

  border-radius: 3px;

  padding: 5px 15px;

  cursor: pointer;

  margin-right: 15px;

}

.apply-button:hover, .reset-button:hover {

  background-color: #282828;

}

.filter-category.selected{

  background-color: rgb(110, 109, 109);

  color: white;

}

.filter-options {

  display: none;

  justify-content: center;

  align-items: center;

}

.filter-buttons {

  display: none;

  justify-content: center;

  align-items: center;

}

.show {

  display: block;

}

a {

  text-decoration: none;

}

Flight-info.CSS:

body {

    font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;

    margin: 0;

    padding: 0;

    background-color: #f0f0f0;

    overflow-x: hidden;

  }

  #search-section {

    position: relative;

    height: 300px;

  }

  #header-container {

    text-align: left;

    position: absolute;

    top: -75%;

    left: 30%;

    transform: translate(-50%, -50%);

    color: rgb(0, 0, 0);

  }

  section {

    margin: 40px;

    display: flex;

    flex-direction: column;

    align-items: center;

  }

  h2 {

    font-size: 36px;

    font-weight: bold;

    margin: 0;

  }

  p {

    font-size: 18px;

    margin: 10px 0;

  }

  form {

    display: flex;

    flex-wrap: wrap;

    justify-content: space-between;

    margin-bottom: 20px;

    width: 90%;

    padding: 20px;

    border-radius: 15px;

    background-color: transparent;

    box-shadow: none;

  }

  label {

    margin-bottom: 10px !important;

    display: flex !important;

    align-items: center !important;

  }

  input,

  select,

  button {

    margin-bottom: 10px;

    padding: 8px;

    border: none;

    border-radius: 15px;

    width: 250px;

  }

  button {

    cursor: pointer;

    background-color: #1DB954;

    color: white;

    border: none;

    border-radius: 15px;

    padding: 10px;

  }

  button:hover {

    background-color: #166b3d;

  }

  #search-results {

    width: 80%;

  }

  .flight-info {

      position: relative;

    background-color: white;

    box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);

    padding: 20px;

    border-radius: 10px;

    margin-bottom: 15px;

    display: flex;

    justify-content: space-between;

  }

  .flight-info-left {

    flex: 1;

    margin-left: 40px;

  }

  .flight-info-right {

    flex: 1;

    text-align: right;

  }

  .flight-header {

    font-size: 18px;

    font-weight: bold;

    margin-bottom: 10px;

  }

  .in-flight-button {

    cursor: pointer;

    background-color: #1DB954;

    color: white;

    font-weight: bold;

    border: none;

    border-radius: 15px;

    padding: 10px;

  }

  .flag {

    width: 106px;

    height: 60px;

    background-size: cover;

    margin-top: 35px;

  }

  .in-flight-button:hover {

    background-color: #166b3d;

  }

      #lightbox {

        display: none;

        position: fixed;

        top: 0;

        left: 0;

        width: 100%;

        height: 100%;

        background-color: rgba(0, 0, 0, 0.7);

        display: flex;

        justify-content: center;

        align-items: center;

        z-index: 1000;

      }

      #modal-content {

        background-color: #fff;

        padding: 20px;

        border-radius: 15px;

        position: relative;

        max-width: 600px;

        width: 100%;

      }

      .close-button {

        position: absolute;

        top: 10px;

        right: 10px;

        font-size: 20px;

        cursor: pointer;

        color: black;

      }

      .lightbox-header {

        font-size: 24px;

        font-weight: bold;

        margin-top: 20px;

        text-align: center;

        background-color: #1DB954;

        color: white;

        padding: 10px;

        border-radius: 15px;

      }

  .hidden {

    display: none;

  }

  .toggle-switch-container {

    display: flex;

    align-items: center;

    margin-bottom: 10px;

  }

  .toggle-switch {

    position: relative;

    display: inline-block;

    width: 60px;

    height: 34px;

  }

  .toggle-label {

    margin: 0 10px;

  }

  .toggle-switch-slider {

    position: absolute;

    cursor: pointer;

    top: 0;

    left: 0;

    right: 0;

    bottom: 0;

    background-color: #1DB954;

    border-radius: 34px;

    transition: .4s;

  }

  .toggle-switch-slider:before {

    position: absolute;

    content: "";

    height: 26px;

    width: 26px;

    left: 4px;

    bottom: 4px;

    background-color: white;

    border-radius: 50%;

    transition: .4s;

  }

  .toggle-switch-on .toggle-switch-slider {

    background-color: #1DB954;

  }

  .toggle-switch-on .toggle-switch-slider:before {

    transform: translateX(26px);

  }

  #loading-indicator {

    position: fixed;

    top: 0;

    left: 0;

    width: 100%;

    height: 100%;

    background-color: rgba(255, 255, 255, 0.8);

    display: none;

    justify-content: center;

    align-items: center;

    z-index: 999;

  }

  .loading .flight-info {

    visibility: hidden;

  }

  .status-banner {

    position: absolute;

    top: 0;

    left: 0;

    right: 0;

    width: 9%;

    padding: 5px;

    background-color: #ffcc00;

    color: #ffffff;

    font-weight: bold;

    text-align: center;

    border-radius: 10px 0px 0 0;

    box-shadow: 0 2px 5px rgba(0, 0, 0, 0.1);

  }

  #loading-indicator img {

    width: 200px;

    height: 200px;

  }

  .lightbox-header-container {

    display: flex;

    justify-content: flex-end; /\* Aligns the button to the right \*/

}

Index.CSS:

\*{

  font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;

   margin:0; padding:0;

   box-sizing: border-box;

   outline: none; border:none;

   text-decoration: none;

   text-transform: capitalize;

   transition: all .2s linear;

}

body, html {

    margin: 0;

    overflow-x: hidden;

}

#background-slideshow {

    position: relative;

    width: 100%;

    height: 100vh;

    overflow: hidden;

}

.background-slide {

    width: 100%;

    height: 100%;

    background-size: cover;

    background-position: center;

    position: absolute;

    opacity: 0;

    transition: opacity 0s ease-in-out;

}

.background-slide.active {

    animation: zoomAnimation 7s ease-in-out forwards;

    opacity: 1;

}

@keyframes zoomAnimation {

    from {

        background-size: 100% 100%;

    }

    to {

        background-size: 105% 105%;

    }

}

\*,

\*::before,

\*::after {

  box-sizing: border-box;

}

.search-form {

  position: relative;

  top: 0%;

  left: 50%;

  width: 400px;

  height: 40px;

  border-radius: 40px;

  box-shadow: 0 6px 8px rgba(0, 0, 0, 0.15);

  transform: translate(-50%, -400%);

  background: #fff;

  transition: all 0.3s ease;

  &.focus {

    box-shadow: 0 3px 4px rgba(0, 0, 0, 0.15);

  }

}

.search-input {

  position: absolute;

  top: 10px;

  left: 38px;

  font-size: 15px;

  background: none;

  color: #5a6674;

  width: 195px;

  height: 20px;

  border: none;

  appearance: none;

  outline: none;

  &::-webkit-search-cancel-button {

    appearance: none;

  }

}

.search-button {

  position: absolute;

  display: flex;

  justify-content: center;

  top: 10px;

  left: 11px;

  height: 20px;

  width: 20px;

  padding: 0;

  margin: 0;

  border: none;

  background: none;

  outline: none!important;

  cursor: pointer;

  & svg {

    width: 20px;

    height: 20px;

    fill: #5a6674;

  }

}

.search-form .search-icons {

    display: flex;

    align-items: center;

    position: absolute;

    right: 10px;

    top: 50%;

    transform: translateY(-50%);

}

.icon-button {

    background: none;

    border: none;

    cursor: pointer;

    margin-left: 2px;

    transition: color 0.3s;

    outline: none !important;

    margin-right: 10px;

}

.icon-svg {

    fill: #5a6674;

    width: 19px;

    height: 19px;

}

.icon-button:hover .icon-svg,

.icon-button:focus .icon-svg {

    fill: #274c8b;

}

.icon-button:hover::before {

    display: block;

}

/\* Tooltip CSS \*/

.icon-button::before {

    content: attr(data-tooltip);

    position: absolute;

    bottom: 100%;

    left: 50%;

    transform: translateX(-50%);

    background-color: black;

    color: white;

    text-align: center;

    border-radius: 3px;

    padding: 5px;

    font-size: 12px;

    display: none;

}

.section {

  display: flex;

  align-items: center;

  justify-content: space-between;

  padding: 50px 5%;

  gap: 20px;

}

.header {

  flex: 1;

  max-width: 300px;

}

.highlights-title {

  font-size: 48px;

  margin-bottom: 10px;

  margin-right: 20px;

  color: black;

}

.highlights-subtitle {

  font-size: 18px;

  margin-right: 10px;

}

.header {

  flex: 2;

  max-width: 800px;

}

.deals-title {

  font-size: 48px;

  margin-bottom: 20px;

  padding-left: 40px;

  color: black;

}

.deals-subtitle {

  font-size: 18px;

  padding-left: 30px;

}

.carousel-container {

  position: relative;

  overflow: hidden;

}

.carousel-container.header {

  padding-right:100px;

}

.carousel {

  scroll-behavior: smooth;

  overflow-x: auto;

  scrollbar-width: none;

  white-space: nowrap;

}

.carousel::-webkit-scrollbar {

  display: none;

}

.list {

  display: flex;

  gap: 20px;

  transition: transform 0.3s ease-in-out;

  flex-wrap: nowrap;

}

.card {

  transition: transform 0.3s ease-in-out;

  flex-shrink: 0;

    width: 250px;

    height: 400px;

}

.card:hover {

  transform: translateY(-10px);

}

.card-content {

  padding: 20px;

  text-align: center;

  background: white;

  border-radius: 0 0 10px 10px;

}

.scroll-button {

  position: absolute;

  top: 50%;

  background: #fff;

  border: 1px solid #ccc;

  color: #333;

  border-radius: 50%;

  width: 50px;

  height: 50px;

  cursor: pointer;

  font-size: 24px;

  transform: translateY(-50%);

  z-index: 10;

  display: block;

}

.scroll-button.left {

  left: 10px;

}

.scroll-button.right {

  right: 10px;

}

.carousel .card {

  height: 450px; /\* Set your desired height \*/

  width: 300px;   /\* Maintain aspect ratio \*/

  border-radius: 20px;

}

.carousel .card img {

  height: 200px; /\* Set your desired height \*/

  width: auto;   /\* Maintain aspect ratio \*/

  border-radius: 10px;

}

.carousel .card .card-description {

  font-size: 16px;

  overflow: hidden;

  white-space: normal;

}

.carousel .card .card-title {

  font-size: 20px;

  white-space: normal;

}

/\* Add your existing styles here \*/

.card img {

  width: 100%;

  height: 100%;

  object-fit: cover;

  border-top-left-radius: 20px;

  border-top-right-radius: 20px;

}

.modal-body #popupImage {

  width: 500px;

  height: 350px;

  object-fit: cover;

  border-radius: 20px;

}

.tab-container {

  font-family: Arial, sans-serif;

  background: #fff;

  padding: 20px;

  box-shadow: 0 2px 5px rgba(0, 0, 0, 0.2);

  border-radius: 8px;

  width: 80%;

  margin: auto;

  margin-bottom: 50px;

}

.tab-buttons {

  position: relative;

  display: flex;

  justify-content: space-around;

  margin-bottom: 20px;

}

.tab-button {

  border: none;

  outline: none;

  cursor: pointer;

  padding: 10px 20px;

  transition: color 0.3s;

  background-color: transparent;

  border-bottom: 3px solid transparent;

  font-weight: 600;

  flex: 1;

  outline: none!important;

}

.tab-button.active {

  color: #428BFF;

}

.tab-content {

  display: none;

  padding: 10px 0;

  color: #333;

}

.tab-content p {

  margin: 0;

  padding: 0;

}

.tab-indicator {

  position: absolute;

  bottom: 0;

  left: 0;

  width: 0;

  height: 3px;

  background-color: #428BFF;

  border-radius: 1px;

  transition: left 0.3s ease, width 0.3s ease;

}

.site-footer {

    background-color: #333;

    color: white;

    padding: 40px 0;

    font-family: Arial, sans-serif;

}

.footer-content {

    width: 80%;

    margin: 0 auto;

    display: flex;

    justify-content: space-between;

    flex-wrap: wrap;

}

.footer-heading {

    flex-basis: 100%;

    text-align: center;

    margin-bottom: 20px;

    font-size: 24px;

}

.footer-social {

    display: flex;

    justify-content: center;

    margin-bottom: 20px;

}

a{

    text-decoration: none !important;

}

a :hover{

    text-decoration: none !important;

}

.footer-social a {

    color: white;

    text-decoration: none;

    margin: 0 10px;

    font-size: 20px;

    transition: color 0.3s ease;

}

.footer-social a.fb{

  margin-top: 7.5px;

}

.footer-social a.ln{

  margin-top: 7.5px;

}

.footer-social a.tw{

  margin-top: 5px;

}

.footer-social a:hover {

    color: #1DB954;

}

.footer-links {

    margin-left: 850px;

    display: flex;

    justify-content: space-between;

    width: 100%;

}

.link-column {

    display: flex;

    flex-direction: column;

}

.link-column a {

    color: white;

    text-decoration: none;

    margin-bottom: 10px;

    transition: color 0.3s ease;

}

.link-column a:hover {

    color: #1DB954;

}

.search-results {

    position: absolute;

    background: white;

    width: 98%;

    box-sizing: border-box;

    border: 1px solid #ccc;

    border-top: none;

    box-shadow: 0 8px 16px rgba(0,0,0,0.1);

    z-index: 1000;

    display: none; /\* Initially hidden \*/

    overflow-y: auto;

    max-height: 200px; /\* Adjust as needed \*/

}

.search-results .result-item {

    padding: 10px;

    cursor: pointer;

    transition: background-color 0.2s;

}

.search-results .result-item:hover {

    background-color: #f0f0f0;

}

.btn-outline-secondary {

    border: none !important;

    background: transparent !important;

}

.btn-outline-secondary:hover {

    background-color: #007bff !important;

    box-shadow: none !important;

    border: none !important;

}

.btn-outline-secondary:focus {

    box-shadow: none !important;

    border: none !important;

}

#weather-container {

  max-width: 400px;

}

.weather-widget {

  border: 1px solid #ced4da;

  border-radius: 0.25rem;

  box-shadow: 0 0.5rem 1rem rgba(0, 0, 0, 0.15);

  background-color: #ffffff;

  padding: 20px;

  text-align: left;

  margin-left: 175px;

  margin-top: 130px;

}

h2 {

  margin-bottom: 10px;

}

.temperature {

  font-size: 2rem;

  font-weight: bold;

  margin-bottom: 10px;

}

.weather-icon {

  max-width: 80px;

  max-height: 80px;

  margin-bottom: -10px;

  float: left;

}

.weather-description {

  margin-top: 30px;

  clear: right;

}

.additional-info {

  list-style: none;

  padding: 0;

  margin: 0;

}

.additional-info li {

  margin-bottom: 10px;

}

.converter-container {

  width: 400px;

  margin: auto;

  margin-top: 50px;

  background-color: #ffffff;

  padding: 20px!important;

  border-radius: 8px;

  box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);

}

.result {

  margin-top: 20px;

}

#weather-container,

.container.converter-container {

    display: inline-block;

    width: 45%; /\* Adjust the width as needed \*/

    margin-right: 15%; /\* Adjust the margin as needed \*/

    vertical-align: top;

}

.container.converter-container {

    margin-right: 0; /\* Remove the right margin for the last container \*/

}

.rating-container {

  display: inline-block;

}

.rating-star {

  font-size: 24px;

  color: #ddd; /\* Default star color \*/

  cursor: pointer;

  transition: color 0.3s;

}

.rating-star:hover,

.rating-star.active {

  color: #fdd835; /\* Golden star color on hover and when selected \*/

}

#feedbackButton {

  background-color: transparent;

  border: none;

  cursor: pointer;

  color: white;

  transition: color 0.3s;

  width:10px;

  margin-left: -13px;

  margin-bottom: 10px;

}

#feedbackButton:hover {

  color: #1DB954;

}

.navbar1 a{

  color: white !important;

}

.navbar1 a:hover{

  color: #1DB954 !important;

}

.flag-button{

  margin-top: -1px !important;

}

.message-box {

    position: fixed;

    top: 10px;

    right: 10px;

    background-color: #f8d7da; /\* Light red background \*/

    color: #721c24; /\* Dark red text \*/

    padding: 10px;

    border-radius: 5px;

    box-shadow: 0px 0px 10px rgba(0, 0, 0, 0.2);

    display: none; /\* Initially hidden \*/

    z-index: 1000; /\* Ensure it's above other elements \*/

}

Login.CSS:

\* {

  margin: 0px;

  padding: 0px;

  box-sizing: border-box;

}

body, html {

  height: 100%;

  font-family: Ubuntu-Regular, sans-serif;

}

a {

  font-family: Ubuntu-Regular;

  font-size: 14px;

  line-height: 1.7;

  color: #666666;

  margin: 0px;

  transition: all 0.4s;

  -webkit-transition: all 0.4s;

  -o-transition: all 0.4s;

  -moz-transition: all 0.4s;

}

a:focus {

  outline: none !important;

}

a:hover {

  text-decoration: none;

  color: #fff;

}

h1,h2,h3,h4,h5,h6 {

  margin: 0px;

}

p {

  font-family: Ubuntu-Regular;

  font-size: 14px;

  line-height: 1.7;

  color: #666666;

  margin: 0px;

}

ul, li {

  margin: 0px;

  list-style-type: none;

}

input {

  outline: none;

  border: none;

}

textarea {

  outline: none;

  border: none;

}

textarea:focus, input:focus {

  border-color: transparent !important;

}

input:focus::-webkit-input-placeholder { color:transparent; }

input:focus:-moz-placeholder { color:transparent; }

input:focus::-moz-placeholder { color:transparent; }

input:focus:-ms-input-placeholder { color:transparent; }

textarea:focus::-webkit-input-placeholder { color:transparent; }

textarea:focus:-moz-placeholder { color:transparent; }

textarea:focus::-moz-placeholder { color:transparent; }

textarea:focus:-ms-input-placeholder { color:transparent; }

input::-webkit-input-placeholder { color: #555555;}

input:-moz-placeholder { color: #555555;}

input::-moz-placeholder { color: #555555;}

input:-ms-input-placeholder { color: #555555;}

textarea::-webkit-input-placeholder { color: #555555;}

textarea:-moz-placeholder { color: #555555;}

textarea::-moz-placeholder { color: #555555;}

textarea:-ms-input-placeholder { color: #555555;}

label {

  margin: 0;

  display: block;

}

button {

  outline: none !important;

  border: none;

  background: transparent;

}

button:hover {

  cursor: pointer;

}

iframe {

  border: none !important;

}

.txt1 {

  font-family: Poppins-Regular;

  font-size: 13px;

  color: #e5e5e5;

  line-height: 1.5;

}

.limiter {

  width: 100%;

  margin: 0 auto;

}

.container-login100 {

  width: 100%;

  min-height: 100vh;

  display: -webkit-box;

  display: -webkit-flex;

  display: -moz-box;

  display: -ms-flexbox;

  display: flex;

  flex-wrap: wrap;

  justify-content: center;

  align-items: center;

  padding: 15px;

  background-repeat: no-repeat;

  background-position: center;

  background-size: cover;

  position: relative;

  z-index: 1;

}

.container-login100::before {

  content: "";

  display: block;

  position: absolute;

  z-index: -1;

  width: 100%;

  height: 100%;

  top: 0;

  left: 0;

  background-color: rgba(0,0,0,0.65);

}

.wrap-login100 {

  width: 390px;

  border-radius: 10px;

  overflow: hidden;

  background: transparent;

}

.login100-form {

  width: 100%;

  height: 500;

  border-radius: 10px;

  background-color: #fff;

}

.login100-form-logo {

  font-size: 60px;

  color: #333333;

  display: -webkit-box;

  display: -webkit-flex;

  display: -moz-box;

  display: -ms-flexbox;

  display: flex;

  justify-content: center;

  align-items: center;

  width: 120px;

  height: 120px;

  border-radius: 50%;

  background-color: #fff;

  margin: 0 auto;

}

.login100-form-title {

  font-family: Ubuntu-Bold;

  font-size: 28px;

  color: #fff;

  line-height: 1.2;

  text-align: center;

  text-transform: uppercase;

  display: block;

}

.wrap-input100 {

  width: 100%;

  position: relative;

  border-bottom: 1px solid #e6e6e6;

  padding: 29px 0;

}

.input100 {

  font-family: Ubuntu-Regular;

  font-size: 20px;

  color: #555555;

  line-height: 1.2;

  display: block;

  width: 100%;

  height: 50px;

  background: transparent;

  padding: 0 10px 0 80px;

  -webkit-transition: all 0.4s;

  -o-transition: all 0.4s;

  -moz-transition: all 0.4s;

  transition: all 0.4s;

}

.focus-input100 {

  position: absolute;

  display: block;

  width: 100%;

  height: 100%;

  top: 0;

  left: 0;

  pointer-events: none;

}

.focus-input100::before {

  content: "";

  display: block;

  position: absolute;

  bottom: -1px;

  left: 0;

  width: 0;

  height: 1px;

  -webkit-transition: all 0.4s;

  -o-transition: all 0.4s;

  -moz-transition: all 0.4s;

  transition: all 0.4s;

  background: #d41872;

  background: -webkit-linear-gradient(left, #a445b2, #d41872, #fa4299);

  background: -o-linear-gradient(left, #a445b2, #d41872, #fa4299);

  background: -moz-linear-gradient(left, #a445b2, #d41872, #fa4299);

  background: linear-gradient(left, #a445b2, #d41872, #fa4299);

}

.focus-input100::after {

  font-family: Linearicons-Free;

  font-size: 18px;

  color: #999999;

  content: attr(data-placeholder);

  display: block;

  width: 100%;

  position: absolute;

  top: 40px;

  left: 35px;

  -webkit-transition: all 0.4s;

  -o-transition: all 0.4s;

  -moz-transition: all 0.4s;

  transition: all 0.4s;

}

.input100:focus {

  padding-left: 60px;

}

.input100:focus + .focus-input100::after {

  left: 23px;

  color: #d41872;

}

.input100:focus + .focus-input100::before {

  width: 100%;

}

.has-val.input100 + .focus-input100::after {

  left: 23px;

  color: #d41872;

}

.has-val.input100 + .focus-input100::before {

  width: 100%;

}

.has-val.input100 {

  padding-left: 60px;

}

.container-login100-form-btn {

  width: 100%;

  display: -webkit-box;

  display: -webkit-flex;

  display: -moz-box;

  display: -ms-flexbox;

  display: flex;

  flex-wrap: wrap;

  justify-content: center;

}

.login100-form-btn {

  font-family: Ubuntu-Bold;

  font-size: 18px;

  color: #fff;

  line-height: 1.2;

  text-transform: uppercase;

  display: -webkit-box;

  display: -webkit-flex;

  display: -moz-box;

  display: -ms-flexbox;

  display: flex;

  justify-content: center;

  align-items: center;

  padding: 0 20px;

  min-width: 250px;

  height: 50px;

  border-radius: 21px;

  position: relative;

  z-index: 1;

  -webkit-transition: all 0.4s;

  -o-transition: all 0.4s;

  -moz-transition: all 0.4s;

  transition: all 0.4s;

}

.login100-form-btn::before {

  content: "";

  display: block;

  position: absolute;

  z-index: -1;

  width: 100%;

  height: 100%;

  border-radius: 21px;

  background-color: #555555;

  top: 0;

  left: 0;

  opacity: 0;

  -webkit-transition: all 0.4s;

  -o-transition: all 0.4s;

  -moz-transition: all 0.4s;

  transition: all 0.4s;

}

.login100-form-btn:hover {

  background-color: transparent;

}

.login100-form-btn:hover:before {

  opacity: 1;

}

.validate-input {

  position: relative;

}

.alert-validate::before {

  content: attr(data-validate);

  position: absolute;

  max-width: 70%;

  background-color: #fff;

  border: 1px solid #c80000;

  border-radius: 2px;

  padding: 4px 25px 4px 10px;

  top: 50%;

  -webkit-transform: translateY(-50%);

  -moz-transform: translateY(-50%);

  -ms-transform: translateY(-50%);

  -o-transform: translateY(-50%);

  transform: translateY(-50%);

  right: 10px;

  pointer-events: none;

  font-family: Ubuntu-Bold;

  color: #c80000;

  font-size: 13px;

  line-height: 1.4;

  text-align: left;

  visibility: hidden;

  opacity: 0;

  -webkit-transition: opacity 0.4s;

  -o-transition: opacity 0.4s;

  -moz-transition: opacity 0.4s;

  transition: opacity 0.4s;

}

.alert-validate::after {

  content: "\f12a";

  font-family: FontAwesome;

  font-size: 16px;

  color: #c80000;

  display: block;

  position: absolute;

  top: 50%;

  -webkit-transform: translateY(-50%);

  -moz-transform: translateY(-50%);

  -ms-transform: translateY(-50%);

  -o-transform: translateY(-50%);

  transform: translateY(-50%);

  right: 15px;

}

.alert-validate:hover:before {

  visibility: visible;

  opacity: 1;

}

@media (max-width: 992px) {

  .alert-validate::before {

    visibility: visible;

    opacity: 1;

  }

}

.p-t-30 {padding-top: 30px;}

.p-b-50 {padding-bottom: 50px;}

.p-b-41 {padding-bottom: 41px;}

.p-b-33 {padding-bottom: 33px;}

.p-t-5 {padding-top: 5px;}

.m-t-32 {margin-top: 32px;}

.text-center {text-align: center;}

.m-b-10 {margin-bottom: 10px;}

Navbar.CSS:

body {

    margin: 0!important;

    padding: 0!important;;

  }

  .navbar {

    transition: background-color 0.5s, color 0.5s;

  }

  .navbar.transparent {

      background-color: #333;

      color: rgb(255, 255, 255);

  }

  .user-icon.small-icon {

  width: 35px;

  height: 20px;

  }

  .heart-ico{

    width: 25px;

    height: 25px;

    float:right;

    cursor: pointer;

  }

  .heart-ico:hover{

    content: url(../images/red-heart-navbar.png);

  }

  .flag-icon.small-icon {

    width: 30px;

    height: 30px;

  }

  .nav-item{

      padding: 5px;

  }

  .container{

    padding:0px 0px;

  }

  @media (max-width: 992px) {

  .navbar-collapse {

    display: flex !important;

  }

}

 .heart-ico{

    width: 25px;

    height: 25px;

    float:right;

    cursor: pointer;

  }

  .heart-ico:hover{

    content: url(../images/red-heart-navbar.png);

  }

Perfume\_haven.CSS:

body {

    background-size: cover;

    background-repeat: no-repeat;

    background-attachment: fixed;

}

h2{

    background-color: white;

    text-align: center;

    margin-top: 70px!important;

}

.carousel .card img {

    height: 225px; /\* Set your desired height \*/

    width: auto;   /\* Maintain aspect ratio \*/

}

.carousel .card {

    border-radius: 15px; /\* Set your desired border-radius value \*/

    overflow: hidden;   /\* Ensure rounded corners are applied \*/

}

.favorite-button {

    cursor: pointer;

    font-size: 24px;

    color: grey;

    background-color: white;

}

.favorite-button.active {

    color: red;

}

h2 {

    color: black;

}

#image-container img{

    width: 100%;

    height: 700px;

}

.search-button {

    position: absolute;

    display: flex;

    justify-content: center;

    top: 10px;

    left: 11px;

    height: 20px;

    width: 20px;

    padding: 0;

    margin: 0;

    border: none;

    background: none;

    outline: none!important;

    cursor: pointer;

    & svg {

      width: 20px;

      height: 20px;

      fill: #5a6674;

    }

  }

  .user-icon.small-icon {

    margin-top: 4px;

    }

Wishlist.CSS:

body{

    background-image: url(../images/wishlist-background2.jpg);

    background-repeat: no-repeat;

    background-size: 200%;

    background-position: center;

}

.ratings i{font-size: 16px;color: red}

.strike-text{color: red;text-decoration: line-through}

.product-image{width: 350px !important;

height: 250px !important;}

.dot{height: 7px;width: 7px;margin-left: 6px;margin-right: 6px;margin-top: 3px;background-color: #333;border-radius: 50%;display: inline-block}

.spec-1{color: #938787;font-size: 15px}

h5{font-weight: 400}

.para{font-size: 16px}

.btn-primary {

    background-color: #333 !important;

    border-color: #333 !important;

}

.btn-outline-primary{

    border-color: #333 !important;

    color: #333 !important;

}

.rounded {

    border-radius: 30px !important;

}

.wishlist-heart{

    text-align: center;

}

.heart-ico-wl{

    background-image: url(../images/heart\_ico.png);

    width: 30px;

    height: 30px;

    background-size: cover;

    display: inline-block;

    margin-bottom: 0px;

    margin-top: 50px;

}

.wishlist-title{

    text-align: center;

}

.navbar{

    background-color: #333;

    position: static;

}

**2-JS:**

Create\_account.js:

document.addEventListener('DOMContentLoaded', (event) => {

    document.getElementById('create-account-form').addEventListener('submit', function (e) {

        e.preventDefault();

        const username = document.getElementById("username-input").value;

        const postData = {

            'username': username

        };

        fetch('/auth/createAccount', {

            method: 'POST',

            headers: {

                'Content-Type': 'application/json'

            },

            body: JSON.stringify(postData)

        }).then(response => {

            if (response.status === 201) {

                window.location.href = "/";

            } else if (response.status === 406) {

                console.error("Can't create account");

            }

        })

        .catch(error => {

            if (!navigator.onLine) {

                console.error('No internet connection');

            } else {

                console.error('Fetch error:', error);

            }

        });

    });

});

Dining.js:

let loadMoreBtn = document.querySelector('#load-more');

let currentItem = 6; // Initialize to show 6 items initially

loadMoreBtn.onclick = () => {

  let boxes = [...document.querySelectorAll('.container .box-container .box')];

  let itemsToLoad = 6; // Load 6 items per click

  for (let i = currentItem; i < currentItem + itemsToLoad; i++) {

    if (boxes[i]){

      let image = boxes[i].querySelector('.image img');

      if (!image.complete) {

        image.onload = function() {

      boxes[i].classList.add('visible')

      };

     } else{

        boxes[i].classList.add('visible');

      }

    }

  }

  currentItem += itemsToLoad;

  if (currentItem >= boxes.length) {

    loadMoreBtn.style.display = 'none'; // Hide the button if all items are loaded

  }

};

document.addEventListener('DOMContentLoaded', function() {

  var btn = document.getElementById('btn');

  btn.addEventListener('click', function() {

    toggle('../static/images/oop.jpg');

  });

  var closeBtn = document.getElementById('closeBtn');

  closeBtn.addEventListener('click', function() {

    toggle();

  });

});

function toggle(imageSrc) {

  // Toggle the 'active' class on the blur element

  var blur = document.getElementById('blur');

  blur.classList.toggle('active');

  // Get the popup element

  var popup = document.getElementById('popup');

  // If an image source is provided, update the image; otherwise, clear it

  if (imageSrc) {

    popup.querySelector('img').src = imageSrc;

  } else {

    popup.querySelector('img').src = ''; // Clear the image source

  }

  // Toggle the 'active' class on the popup element

  popup.classList.toggle('active');

}

//Here is the filtering code

function toggleFilter(button) {

  const filterOptions = button.nextElementSibling;

  const filterButtons = filterOptions.nextElementSibling;

if (filterOptions.style.display == 'none' || filterOptions.style.display === '') {

  filterOptions.style.display = 'flex';

  filterButtons.style.display = 'flex';

  button.textContent = 'Filters -';

} else {

  filterOptions.style.display = 'none';

  filterButtons.style.display = 'none';

  button.textContent = 'Filters +';

}

}

document.addEventListener('DOMContentLoaded', function () {

  let selectedCategories = [];

  function toggleFilter(button) {

      const filterOptions = button.nextElementSibling;

      const filterButtons = filterOptions.nextElementSibling;

      if (filterOptions.style.display == 'none' || filterOptions.style.display === '') {

          filterOptions.style.display = 'flex';

          filterButtons.style.display = 'flex';

          button.textContent = 'Filters -';

      } else {

          filterOptions.style.display = 'none';

          filterButtons.style.display = 'none';

          button.textContent = 'Filters +';

      }

  }

  function applyFilters() {

      const boxes = document.querySelectorAll('.box');

      boxes.forEach(box => {

          const category = box.getAttribute('data-category');

          if (selectedCategories.length === 0 || selectedCategories.includes(category)) {

              box.style.display = 'block';

          } else {

              box.style.display = 'none';

          }

      });

  }

  function resetFilters() {

      const selectedCategories = document.querySelectorAll('.filter-category.selected');

      selectedCategories.forEach(category => {

          category.classList.remove('selected');

      });

      applyFilters(); // Added to apply filters after resetting

  }

  const categoryButtons = document.querySelectorAll('.filter-category');

  categoryButtons.forEach(button => {

      button.addEventListener('click', function () {

          this.classList.toggle('selected');

      });

  });

  const applyButton = document.querySelector('.apply-button');

  if (applyButton) {

      applyButton.addEventListener('click', function () {

          selectedCategories = [];

          const selectedCategoriesElements = document.querySelectorAll('.filter-category.selected');

          selectedCategoriesElements.forEach(category => {

              selectedCategories.push(category.getAttribute('data-category'));

          });

          applyFilters();

      });

  }

  const resetButton = document.querySelector('.reset-button');

  if (resetButton) {

      resetButton.addEventListener('click', resetFilters);

  }

});

Flight\_info.js:

const {

    createClient

} = supabase

const \_supabase = createClient('https://pfwnyxmmxgydkohyqrto.supabase.co', 'eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpc3MiOiJzdXBhYmFzZSIsInJlZiI6InBmd255eG1teGd5ZGtvaHlxcnRvIiwicm9sZSI6ImFub24iLCJpYXQiOjE2OTk3MTg5NjMsImV4cCI6MjAxNTI5NDk2M30.v--PqHL9B8GMFNNW-bp-mMcr7p30V\_5hKXVUSRTBGxA');

let flightData = [];

async function getFlightData() {

    setLoadingState();

    let {

        data,

        error

    } = await \_supabase

        .from('Flight')

        .select();

    if (error) {

        console.error("Error fetching data", error);

    } else {

        flightData = data;

        filterFlights();

    }

    removeLoadingState();

}

async function subscribeToChannel() {

    \_supabase

        .channel('room1')

        .on('postgres\_changes', {

            event: '\*',

            schema: 'public',

            table: 'Flight'

        }, async () => {

            await getFlightData();

            filterFlights();

        })

        .subscribe();

}

const statusColors = {

    "Scheduled": "#ed5ea1",

    "OnTime": "#e2bb1c",

    "Delayed": "#11b2ae",

    "Canceled": "#FF0000",

    "Boarding": "#ba9dbe",

    "Landed": "#fd1f4f",

    "Arrived": "#bbc248"

};

document.addEventListener('DOMContentLoaded', async () => {

    await initFlightInfoApp();

    subscribeToChannel();

});

function getURLParameters() {

    const params = new URLSearchParams(window.location.search);

    return {

        search: params.get('search') || '',

        type: params.get('type') || 'Arrival'

    };

}

async function initFlightInfoApp() {

    populateDropdowns();

    await getFlightData();

    const urlParams = getURLParameters();

    if (urlParams.search) {

        document.getElementById('flight-search-input').value = urlParams.search;

    }

    if (urlParams.type === 'Departure') {

        toggleFlightType(); // Make sure this function can toggle to 'Departure' if it's not already

    }

    filterFlights();

    attachEventListeners();

}

function populateDropdowns() {

    const dateDropdown = document.getElementById('scheduled-day');

    const timeDropdown = document.getElementById('scheduled-time');

    dateDropdown.innerHTML = ['Any Day', 'Today', 'Tomorrow', 'Day after tomorrow'].map(option => `<option value="${option}">${option}</option>`).join('');

    timeDropdown.innerHTML = ['Any time', '00:00-01:59', '02:00-03:59', '04:00-05:59', '06:00-07:59', '08:00-09:59', '10:00-11:59', '12:00-13:59', '14:00-15:59', '16:00-17:59', '18:00-19:59', '20:00-21:59', '22:00-23:59'].map(option => `<option value="${option}">${option}</option>`).join('');

}

function attachEventListeners() {

    document.getElementById('flight-search-input').addEventListener('input', filterFlights);

    document.getElementById('scheduled-day').addEventListener('change', filterFlights);

    document.getElementById('scheduled-time').addEventListener('change', filterFlights);

    document.getElementById('flight-type-toggle').addEventListener('click', () => {

        toggleFlightType();

    });

}

function filterFlights() {

    const searchInputValue = document.getElementById('flight-search-input').value.toLowerCase();

    const selectedDate = document.getElementById('scheduled-day').value;

    const selectedTimeRange = document.getElementById('scheduled-time').value;

    const isDeparture = isDepartureSelected();

    const getSelectedDateValue = (selectedOption) => {

        const today = new Date();

        switch (selectedOption) {

            case "Today":

                return today.toISOString().split('T')[0];

            case "Tomorrow":

                return new Date(today.setDate(today.getDate() + 1)).toISOString().split('T')[0];

            case "Day after tomorrow":

                return new Date(today.setDate(today.getDate() + 2)).toISOString().split('T')[0];

            default:

                return selectedOption;

        }

    };

    const filteredFlights = flightData.filter(flight => {

        const searchMatches = flight.flight\_number.toLowerCase().includes(searchInputValue) ||

                              (flight.origin\_location && flight.origin\_location.toLowerCase().includes(searchInputValue)) ||

                              (flight.destination\_location && flight.destination\_location.toLowerCase().includes(searchInputValue))

                              || (flight.airline\_name && flight.airline\_name.toLowerCase().includes(searchInputValue));

        const dateMatches = selectedDate === "Any Day" || flight.scheduled\_day === getSelectedDateValue(selectedDate);

        const timeMatches = selectedTimeRange === "Any time" || (flight.scheduled\_time >= selectedTimeRange.split('-')[0] && flight.scheduled\_time <= selectedTimeRange.split('-')[1]);

        return searchMatches && (dateMatches && timeMatches) && (flight.isArriving !== isDeparture);

    });

    displayFilteredFlights(filteredFlights);

}

function displayFilteredFlights(flights) {

    const searchResultsSection = document.getElementById('search-results');

    searchResultsSection.innerHTML = '';

    flights.forEach(flight => {

        searchResultsSection.appendChild(createFlightCard(flight, isDepartureSelected() ? 'departures' : 'arrivals'));

    });

}

function isDepartureSelected() {

    return document.getElementById('flight-type-toggle').classList.contains('toggle-switch-on');

}

function toggleFlightType() {

    const toggleSwitch = document.getElementById('flight-type-toggle');

    toggleSwitch.classList.toggle('toggle-switch-on');

    updateHeader(isDepartureSelected());

    setLoadingState();

    setTimeout(() => {

        filterFlights();

        removeLoadingState();

    }, 500);

}

function updateHeader(isDeparture) {

    const header = document.querySelector('h2');

    const subheader = document.querySelector('p');

    header.textContent = isDeparture ? 'PASSENGER DEPARTURES' : 'PASSENGER ARRIVALS';

    subheader.textContent = isDeparture ? 'Keep track of departing passenger flights with live updates.' : 'Keep track of arriving passenger flights with live updates.';

}

function setLoadingState() {

    const loadingIndicator = document.getElementById('loading-indicator');

    if (loadingIndicator) {

        loadingIndicator.style.display = 'flex';

    }

}

function removeLoadingState() {

    const loadingIndicator = document.getElementById('loading-indicator');

    if (loadingIndicator) {

        loadingIndicator.style.display = 'none';

    }

}

function loadFlights(filteredFlights, flightType) {

    const searchResultsSection = document.getElementById('search-results');

    searchResultsSection.innerHTML = '';

    filteredFlights.forEach(flight => {

        searchResultsSection.appendChild(createFlightCard(flight, flightType));

    });

}

function getFilteredFlights(isArriving) {

    return flightData.filter(flight => flight.isArriving === isArriving);

}

function createFlightCard(flight, flightType) {

    const flightInfo = document.createElement('div');

    flightInfo.className = 'flight-info';

    flightInfo.setAttribute('data-flight-id', flight.id);

    flightInfo.setAttribute('data-flight-number', flight.flight\_number);

    flightInfo.appendChild(createFlagElement(flight.image\_name));

    flightInfo.appendChild(createStatusBanner(flight.status));

    flightInfo.appendChild(createFlightInfoColumn(flight, flightType, 'left'));

    flightInfo.appendChild(createFlightInfoColumn(flight, flightType, 'right'));

    return flightInfo;

}

function createFlagElement(imageName) {

    const flag = document.createElement('div');

    flag.className = 'flag';

    flag.style.backgroundImage = `url('../static/images/${imageName}')`;

    return flag;

}

function createStatusBanner(status) {

    const statusBanner = document.createElement('div');

    statusBanner.className = 'status-banner';

    statusBanner.style.backgroundColor = statusColors[status] || '#777';

    statusBanner.textContent = status;

    return statusBanner;

}

function createFlightInfoColumn(flight, flightType, columnType) {

    const column = document.createElement('div');

    column.className = `flight-info-${columnType}`;

    if (columnType === 'left') {

        const header = document.createElement('div');

        header.className = 'flight-header';

        const locationText = flightType === 'arrivals' ?

            `From: ${flight.origin\_location || 'N/A'}` :

            `To: ${flight.destination\_location || 'N/A'}`;

        header.textContent = locationText;

        column.appendChild(header);

        const flightCodeAndAirline = document.createElement('p');

        flightCodeAndAirline.textContent = `${flight.flight\_number} - ${flight.airline\_name}`;

        column.appendChild(flightCodeAndAirline);

        const schedule = document.createElement('p');

        schedule.textContent = `${flight.scheduled\_day} ${flight.scheduled\_time}`;

        column.appendChild(schedule);

    } else {

        const terminalOrGate = document.createElement('p');

        terminalOrGate.textContent = flightType === 'arrivals' ? `${flight.terminal\_name}` : `${flight.gate\_name}`;

        column.appendChild(terminalOrGate);

        if (flightType === 'departures') {

            const checkIn = document.createElement('p');

            checkIn.textContent = `Check-in: ${flight.check\_in\_row}`;

            column.appendChild(checkIn);

        }

        const inFlightButton = document.createElement('button');

        inFlightButton.className = 'in-flight-button';

        inFlightButton.textContent = 'In-Flight Details';

        inFlightButton.addEventListener('click', () => showInFlightDetails(flight.id));

        column.appendChild(inFlightButton);

    }

    return column;

}

function showInFlightDetails(flightId) {

    const numericFlightId = Number(flightId);

    const flight = flightData.find(f => f.id === numericFlightId);

    const lightbox = document.getElementById('lightbox');

    const inFlightDetails = document.getElementById('in-flight-details');

    inFlightDetails.innerHTML = `

        <p>Airline: ${flight.airline\_name}</p>

        <p>Entertainment: ${flight.inflight\_entertainment\_option.join(', ')}</p>

        <p>Meals: ${flight.meal\_service.join(', ')}</p>

    `;

    lightbox.style.display = 'flex';

    document.getElementById("track-btn").addEventListener('click', () => {

        const postData = {

            "flightID": flight.id,

            "flightNumber": flight.flight\_number

        };

        fetch('/trackFlight', {

                method: 'POST',

                headers: {

                    'Content-Type': 'application/json'

                },

                body: JSON.stringify(postData)

            }).then(response => {

                if (response.status === 203) {

                    closeLightbox();

                } else if (response.status === 411) {

                    console.error("Cannot Track Flight");

                }

            })

            .catch(error => {

                if (!navigator.onLine) {

                    console.error('No internet connection');

                } else {

                    console.error('Fetch error:', error);

                }

            });

    });

}

function closeLightbox() {

    const lightbox = document.getElementById('lightbox');

    lightbox.style.display = 'none';

}

Index.js:

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369, 370, 371, 372, 374, 375, 384, 387, 391, 392, 402, 403, 407, 411, 412, 413, 419, 423, 424, 425, 426, 427, 432, 442, 448, 450, 452, 456, 459, 464, 475, 476, 479, 480, 481, 487, 492, 494, 495, 496, 499, 502, 503, 506, 507, 510, 512, 514, 520, 521, 522, 524, 525, 526, 528, 530, 531, 532, 537, 542, 551, 552, 568, 574, 575, 587, 589, 590, 591, 592, 594, 596, 597, 598, 599, 600, 601, 607, 617, 620, 628, 638, 644, 646, 647, 648, 652, 654, 660, 661, 662, 663, 671, 675, 676, 678, 679, 684, 685, 687, 689, 690, 694, 698, 699, 702, 706, 710, 720, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 759, 760, 766, 773, 805, 806, 807, 812, 813, 827, 835, 838, 841, 844, 847, 849, 864, 871, 874, 875, 886, 889, 892, 904, 905, 908, 912, 917, 922, 942, 946, 949, 950, 954, 955, 956, 961, 962, 967, 971, 972, 975, 976, 978, 980, 984, 992, 993, 994, 999, 1005, 1011, 1025, 1026, 1027, 1029, 1033, 1039, 1041, 1055, 1057, 1063, 1066, 1085, 1097, 1105, 1111, 1112, 1115, 1119, 1125, 1129, 1133, 1135, 1138, 1140, 1143, 1152, 1155, 1163, 1165, 1168, 1169, 1173, 1174, 1179, 1180, 1184, 1188, 1193, 1197, 1202, 1207, 1215, 1225, 1234, 1235, 1239, 1240, 1255, 1257, 1261, 1273, 1274, 1275, 1278, 1279, 1280, 1281, 1282, 1288, 1290, 1299, 1302, 1305, 1317, 1326, 1329, 1331, 1334, 1338, 1339, 1344, 1358, 1359, 1362, 1363, 1365, 1369, 1371, 1373, 1385, 1390, 1392, 1393, 1394, 1401, 1403, 1405, 1407, 1412, 1413, 1415, 1424, 1432, 1433, 1445, 1449, 1456, 1457, 1459, 1466, 1478, 1485, 1489, 1494, 1496, 1497, 1502, 1507, 1510, 1520, 1522, 1523, 1525, 1526, 1528, 1529, 1546, 1548, 1557, 1558, 1561, 1564, 1572, 1573, 1575, 1576, 1579, 1581, 1590, 1591, 1596, 1598, 1621, 1624, 1628, 1629, 1646, 1649, 1650, 1653, 1661, 1662, 1664, 1667, 1681, 1686, 1688, 1689, 1694, 1697, 1707, 1709, 1714, 1722, 1731, 1738, 1739, 1742, 1758, 1768, 1769, 1773, 1778, 1792, 1805, 1807, 1809, 1815, 1816, 1817, 1822, 1824, 1825, 1840, 1850, 1856, 1868, 1874, 1876, 1877, 1893, 1894, 1905, 1911, 1913, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1928, 1929, 1930, 1935, 1939, 1940, 1945, 1946, 1947, 1948, 1955, 1958, 1959, 1960, 1965, 1966, 1977], 'abr': [4], 'abidjan': [5], "cote d'ivoire": [226, 5, 1623, 1583, 404, 919, 1081], 'abj': [5], 'abilene': [6], '(tx)': [387, 644, 1029, 6, 1155, 1041, 402, 403, 532, 1939, 159, 1825, 1572, 1573, 678, 63, 972, 480, 739, 1125, 365, 116, 886, 1911], 'abi': [6], 'abu': [9, 10, 7], 'dhabi': [7], 'international': [1539, 7, 8, 519, 1033, 12, 14, 1550, 16, 532, 1048, 539, 540, 1565, 1054, 1567, 1568, 545, 1634, 35, 1059, 1060, 550, 1061, 1575, 1576, 1067, 556, 1069, 1580, 560, 1074, 563, 1588, 1077, 55, 1083, 65, 66, 1089, 1091, 1092, 70, 1094, 586, 1610, 76, 588, 82, 83, 86, 1114, 1626, 98, 611, 612, 101, 102, 613, 104, 1122, 1127, 1128, 108, 109, 1645, 111, 1648, 626, 630, 121, 123, 1147, 125, 1149, 127, 129, 641, 131, 642, 133, 134, 647, 138, 651, 140, 141, 1168, 1170, 665, 154, 155, 666, 672, 1185, 674, 675, 1697, 165, 166, 1190, 168, 1191, 170, 171, 1196, 173, 686, 691, 187, 701, 702, 706, 199, 201, 203, 715, 206, 1742, 1749, 216, 219, 1757, 735, 234, 750, 1263, 242, 1271, 254, 255, 257, 772, 261, 1796, 1290, 273, 1298, 1811, 276, 288, 289, 804, 1316, 808, 297, 301, 306, 1336, 314, 827, 1339, 1343, 327, 330, 847, 848, 337, 850, 342, 1372, 861, 1884, 867, 1379, 357, 872, 879, 368, 1391, 372, 373, 1397, 1403, 1405, 1918, 895, 1919, 1412, 393, 395, 396, 398, 401, 403, 405, 406, 1943, 1433, 924, 415, 928, 1439, 1440, 419, 1952, 1954, 423, 1448, 939, 430, 431, 436, 438, 439, 445, 1469, 447, 1470, 1471, 1472, 451, 1479, 1481, 467, 471, 1495, 480, 1506, 485, 1001, 1002, 1514, 1518], 'united arab emirates': [545, 7, 1642, 47, 1491, 445, 31], 'auh': [7], 'abuja': [8], 'nnamdi': [8], 'azikiwe': [8], 'airport': [513, 1538, 1539, 518, 8, 12, 14, 16, 1552, 532, 535, 1048, 539, 540, 1565, 1054, 1567, 1056, 545, 1568, 35, 547, 1059, 550, 1060, 1061, 1066, 1067, 44, 45, 556, 1068, 560, 49, 1074, 563, 1580, 1077, 1590, 55, 1080, 1083, 1086, 65, 66, 577, 68, 1605, 71, 74, 76, 82, 1106, 1618, 1109, 86, 1620, 602, 97, 1634, 99, 611, 101, 102, 103, 104, 105, 613, 108, 1132, 1644, 111, 1645, 114, 626, 116, 121, 123, 1147, 125, 127, 129, 641, 131, 642, 133, 134, 140, 141, 1168, 154, 155, 157, 672, 1697, 163, 675, 165, 166, 167, 168, 679, 1196, 173, 1197, 1198, 691, 1716, 187, 701, 1727, 1729, 199, 201, 202, 203, 714, 715, 206, 718, 208, 724, 215, 216, 1240, 223, 737, 1254, 1256, 235, 236, 237, 1263, 1266, 1271, 251, 763, 254, 255, 257, 1795, 1796, 261, 774, 1800, 777, 778, 779, 1292, 781, 782, 273, 1298, 276, 789, 793, 794, 284, 797, 286, 287, 288, 289, 290, 800, 802, 804, 1313, 1830, 1831, 297, 809, 1832, 812, 301, 302, 814, 304, 305, 1833, 1838, 1841, 821, 822, 314, 827, 1339, 317, 1852, 319, 832, 1343, 326, 327, 1862, 1863, 330, 1866, 1868, 847, 337, 850, 339, 342, 346, 861, 867, 367, 368, 879, 370, 1908, 373, 375, 377, 381, 893, 895, 388, 1412, 393, 395, 396, 1931, 398, 401, 924, 415, 928, 1439, 419, 420, 423, 1447, 425, 1448, 430, 431, 947, 436, 437, 438, 439, 951, 1974, 444, 445, 1470, 447, 1471, 1980, 451, 1479, 1480, 1481, 458, 465, 471, 480, 485, 486, 1000, 1514, 505, 1019], 'nigeria': [8, 845, 815, 1429, 951], 'abv': [8], 'rudeis': [9], 'egypt': [1666, 9, 10, 273, 1052, 32, 1441, 44, 45, 686, 1594, 1107, 1108, 478, 100, 103, 1643, 877, 1277], 'aue': [9], 'simbel': [10], 'abs': [10], 'acapulco': [11], 'mexico': [390, 1031, 394, 11, 1034, 1035, 1166, 658, 24, 285, 1823, 1315, 1318, 681, 1194, 1195, 1577, 1582, 1458, 1460, 1206, 1463, 1978, 1090, 1604, 1861, 969, 332, 334, 1744, 722, 981, 348, 989, 350, 351, 352, 608, 1124, 1892, 364, 1902, 753, 1139, 1782, 1146, 1147, 1148, 1149, 1150], 'aca': [11], 'accra': [12], 'kotoka': [12], 'ghana': [12], 'acc': [12], 'adana': [13], 'turkey': [1665, 1803, 13, 399, 17, 918, 417, 1570, 557, 1076, 834, 1096, 1098, 75, 76, 718, 719, 1232, 81, 723, 724, 855, 215, 1883, 1756, 866, 489, 490], 'ada': [13], 'addis': [14], 'ababa': [14], 'bole': [14], 'ethiopia': [784, 793, 786, 14], 'add': [14], 'adelaide': [15], 'australia': [1527, 1028, 15, 33, 1062, 39, 559, 1071, 52, 564, 571, 578, 579, 583, 595, 1113, 1627, 604, 606, 1131, 1132, 624, 1651, 1141, 118, 119, 633, 636, 1660, 128, 130, 1154, 1162, 653, 659, 1683, 664, 667, 670, 1204, 1205, 1717, 1210, 1724, 703, 704, 1729, 1222, 1223, 1224, 205, 1745, 1747, 1759, 1763, 229, 233, 1258, 1259, 244, 1780, 247, 249, 765, 1793, 1794, 1283, 1284, 1287, 264, 1801, 268, 272, 1300, 1301, 284, 292, 298, 1328, 309, 310, 823, 1333, 826, 1340, 322, 839, 854, 856, 860, 354, 1378, 362, 366, 1397, 1912, 378, 379, 380, 890, 1916, 1925, 400, 1937, 1426, 1938, 1430, 1431, 1942, 409, 410, 923, 1434, 1435, 1950, 1956, 421, 933, 1957, 1962, 428, 1455, 446, 1473, 455, 460, 977, 979, 983, 986, 990, 482, 483, 493, 1006, 1010, 1013, 1015], 'adl': [15], 'aden': [16], 'yemen': [16, 1588], 'ade': [16], 'adiyaman': [17], 'adf': [17], 'adler/sochi': [18], 'russia': [1538, 1539, 1167, 18, 1298, 1567, 1313, 1702, 1835, 1839, 1967, 1842, 1974, 311, 1211, 1212, 1213, 1214, 840, 713, 1231, 338, 1620, 90, 1890, 867], 'aer': [18], 'agades': [19], 'niger': [1984, 1095, 1291, 19, 93], 'ajy': [19], 'agadir': [20], 'morocco': [295, 296, 1351, 1354, 1480, 50, 1106, 20, 1746, 508], 'aga': [20], 'agana': [21], '(hagåtña)': [21], 'guam': [610, 21, 626], 'sum': [21], 'aggeneys': [22], 'south africa': [1408, 1409, 1410, 1286, 1414, 1672, 1926, 906, 1427, 22, 1687, 1177, 1049, 288, 1915, 804, 1450, 43, 562, 53, 1846, 1849, 1855, 1216, 966, 1352, 457, 1100, 462, 208, 1243, 477, 1509, 1770, 1909, 1142, 887, 1270, 1402, 1271, 1663], 'agz': [22], 'aguadilla': [23], 'puerto rico': [1123, 1580, 1421, 23], 'bqn': [23], 'aguascaliente': [24], 'agu': [24], 'ahmedabad': [25], 'india': [135, 779, 1042, 275, 148, 915, 278, 1785, 25, 1690, 415, 801, 1832, 169, 1067, 814, 691, 314, 1726, 191, 192, 576, 67, 69, 325, 1484, 846, 1486, 1241, 219, 1886, 1247, 762, 359, 745, 746, 363, 747, 621, 1387, 1775, 752, 761, 122, 763], 'amd': [25], 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let fullRep = {0: 'Aarhus, Denmark, AAR', 1: 'Abadan, Iran, ABD', 2: 'Abeche, Chad, AEH', 3: 'Aberdeen, United Kingdom, ABZ', 4: 'Aberdeen (SD), USA, ABR', 5: "Abidjan, Cote d'Ivoire, ABJ", 6: 'Abilene (TX), USA, ABI', 7: 'Abu Dhabi - Abu Dhabi International, United Arab Emirates, AUH', 8: 'Abuja - Nnamdi Azikiwe International Airport, Nigeria, ABV', 9: 'Abu Rudeis, Egypt, AUE', 10: 'Abu Simbel, Egypt, ABS', 11: 'Acapulco, Mexico, ACA', 12: 'Accra - Kotoka International Airport, Ghana, ACC', 13: 'Adana, Turkey, ADA', 14: 'Addis Ababa - Bole International Airport, Ethiopia, ADD', 15: 'Adelaide, Australia, ADL', 16: 'Aden - Aden International Airport, Yemen, ADE', 17: 'Adiyaman, Turkey, ADF', 18: 'Adler/Sochi, Russia, AER', 19: 'Agades, Niger, AJY', 20: 'Agadir, Morocco, AGA', 21: 'Agana (Hagåtña), Guam, SUM', 22: 'Aggeneys, South Africa, AGZ', 23: 'Aguadilla, Puerto Rico, BQN', 24: 'Aguascaliente, Mexico, AGU', 25: 'Ahmedabad, India, AMD', 26: 'Aiyura, Papua New Guinea, AYU', 27: 'Ajaccio, France, AJA', 28: 'Akita, Japan, AXT', 29: 'Akron (OH), USA, CAK', 30: 'Akrotiri - RAF, Cyprus, AKT', 31: 'Al Ain, United Arab Emirates, AAN', 32: 'Al Arish, Egypt, AAC', 33: 'Albany, Australia, ALH', 34: 'Albany (GA), USA, ABY', 35: 'Albany (NY) - Albany International Airport, USA, ALB', 36: 'Albi, France, LBI', 37: 'Alborg, Denmark, AAL', 38: 'Albuquerque (NM), USA, ABQ', 39: 'Albury, Australia, ABX', 40: 'Alderney, Channel Islands, ACI', 41: 'Aleppo, Syria, ALP', 42: 'Alesund, Norway, AES', 43: 'Alexander Bay - Kortdoorn, South Africa, ALJ', 44: 'Alexandria - Borg el Arab Airport, Egypt, HBH', 45: 'Alexandria - El Nhouza Airport, Egypt, ALY', 46: 'Alexandria - Esler Field, USA (LA), ESF', 47: 'Alfujairah (Fujairah), United Arab Emirates, FJR', 48: 'Alghero Sassari, Italy, AHO', 49: 'Algiers, Houari Boumediene Airport, Algeria, ALG', 50: 'Al Hoceima, Morocco, AHU', 51: 'Alicante, Spain, ALC', 52: 'Alice Springs, Australia, ASP', 53: 'Alldays, South Africa, ADY', 54: 'Allentown (PA), USA, ABE', 55: 'Almaty (Alma Ata) - Almaty International Airport, Kazakhstan, ALA', 56: 'Almeria, Spain, LEI', 57: 'Alta, Norway, ALF', 58: 'Altay, PR China, AAT', 59: 'Altenrhein, Switzerland, ACH', 60: 'Altoona (PA), USA, AOO', 61: 'Altus, USA, AXS', 62: 'Amami, Japan, ASJ', 63: 'Amarillo (TX), USA, AMA', 64: 'Amazon Bay, Papua New Guinea, AZB', 65: 'Amman - Queen Alia International Airport, Jordan, AMM', 66: 'Amman - Amman-Marka International Airport, Jordan, ADJ', 67: 'Amritsar, India, ATQ', 68: 'Amsterdam - Amsterdam Airport Schiphol, Netherlands, AMS', 69: 'Anand, India, QNB', 70: 'Anchorage (AK) - Ted Stevens Anchorage International, USA, ANC', 71: 'Ancona - Ancona Falconara Airport, Italy, AOI', 72: 'Andorra La Vella - Heliport, Andorra, ALV', 73: 'Anguilla, Anguilla, AXA', 74: 'Anjouan - Anjouan Airport, Comoros (Comores), AJN', 75: 'Ankara, Turkey, ANK', 76: 'Ankara - Esenboğa International Airport, Turkey, ESB', 77: 'Annaba, Algeria, AAE', 78: 'Ann Arbor (MI), USA, ARB', 79: 'Annecy, France, NCY', 80: 'Anniston (AL), USA, ANB', 81: 'Antalya, Turkey, AYT', 82: 'Antananarivo (Tanannarive) - Ivato International Airport, Madagascar, TNR', 83: 'Antigua, V.C. Bird International, Antigua and Barbuda, ANU', 84: 'Antwerp, Belgium, ANR', 85: 'Aomori, Japan, AOJ', 86: 'Apia - Faleolo International Airport, Samoa, APW', 87: 'Appelton/Neenah/Menasha (WI), USA, ATW', 88: 'Aqaba, Jordan, AQJ', 89: 'Aracaju, Brazil, AJU', 90: 'Arkhangelsk, Russia, ARH', 91: 'Arusha, Tanzania, ARK', 92: 'Araxos, Greece, GPA', 93: 'Arlit, Niger, RLT', 94: 'Arrecife/Lanzarote, Spain, ACE', 95: 'Aruba - Reina Beatrix International, Oranjestad, Aruba, AUA', 96: 'Asheville (NC), USA, AVL', 97: 'Ashgabat - Saparmurat Turkmenbashy Int. Airport, Turkmenistan, ASB', 98: 'Asmara - Asmara International, Eritrea, ASM', 99: 'Aspen, (CO) - Aspen-Pitkin County Airport, USA, ASE', 100: 'Assiut, Egypt, ATZ', 101: 'Astana - Astana International Airport, Kazakhstan, TSE', 102: 'Asuncion - Asunción International Airport, Paraguay, ASU', 103: 'Aswan - Daraw Airport, Egypt, ASW', 104: 'Athens - Elefthérios Venizélos International Airport, Greece, ATH', 105: 'Athens, Hellinikon Airport, Greece, HEW', 106: 'Athens (GA), USA, AHN', 107: 'Athens (OH), USA, ATO', 108: 'Atlanta (GA) - Hartsfield Atlanta International Airport, USA, ATL', 109: 'Atlantic City (NJ) - Atlantic City International, USA, ACY', 110: 'Attawapiskat, NT, Canada, YAT', 111: 'Auckland - Auckland International Airport, New Zealand, AKL', 112: 'Augsburg - Augsbur gAirport, Germany, AGB', 113: 'Augusta (GA), USA, AGS', 114: 'Augusta (ME) - Augusta State Airport, USA, AUG', 115: 'Aurillac, France, AUR', 116: 'Austin (TX) - Austin-Bergstrom Airport, USA, AUS', 117: 'Ayawasi, Indonesia, AYW', 118: 'Ayers Rock - Connellan, Australia, AYQ', 119: 'Ayr, Australia, AYR', 120: 'Badajoz, Spain, BJZ', 121: 'Bagdad - Baghdad International Airport, Iraq, BGW', 122: 'Bagdogra, India, IXB', 123: 'Bahamas - Lynden Pindling International Airport, The Bahamas, NAS', 124: 'Bahawalpur, Pakistan, BHV', 125: 'Bahrain - Bahrain International Airport, Bahrain, BAH', 126: 'Bakersfield (CA), USA, BFL', 127: 'Baku - Heydar Aliyev International Airport, Azerbaijan, BAK', 128: 'Ballina, Australia, BNK', 129: 'Baltimore (MD) - Washington International Airport, USA, BWI', 130: 'Bamaga, Australia, ABM', 131: 'Bamako - Bamako-Sénou International Airport, Mali, BKO', 132: 'Bambari, Central African Republic, BBY', 133: 'Bandar Seri Begawan - Brunei International Airport, Brunei, BWN', 134: 'Bandung - Husein Sastranegara International Airport, Indonesia, BDO', 135: 'Bangalore, India, BLR', 136: 'Bangassou, Central African Republic, BGU', 137: 'Bangkok, Don Muang, Thailand, DMK', 138: 'Bangkok, Suvarnabhumi International, Thailand, BKK', 139: 'Bangor (ME), USA, BGR', 140: "Bangui - M'Poko International Airport, Central African Republic, BGF", 141: 'Banjul - Banjul International Airport (Yundum International), Gambia, BJL', 142: 'Bannu, Pakistan, BNP', 143: 'Barcelona, Spain, BCN', 144: 'Barcelona, Venezuela, BLA', 145: 'Bardufoss, Norway, BDU', 146: 'Bari, Italy, BRI', 147: 'Barisal, Bangladesh, BZL', 148: 'Baroda, India, BDQ', 149: 'Barra (the famous tidal beach landing), United Kingdom, BRR', 150: 'Barranquilla, Colombia, BAQ', 151: 'Basel, Switzerland, BSL', 152: 'Basel/Mulhouse, Switzerland/France, EAP', 153: 'Basra, Basrah, Iraq, BSR', 154: 'Basse-Terre - Pointe-à-Pitre International Airport, Guadeloupe, PTP', 155: 'Basseterre - Robert L. Bradshaw International Airport, Saint Kitts and Nevis, SKB', 156: 'Bastia, France, BIA', 157: 'Baton Rouge (LA) - Baton Rouge Metropolitan Airport, USA, BTR', 158: 'Bayreuth - Bindlacher-Berg, Germany, BYU', 159: 'Beaumont/Pt. Arthur (TX), USA, BPT', 160: 'Beckley (WV), USA, BKW', 161: 'Beef Island - Terrance B. Lettsome, Virgin Islands (British), EIS', 162: 'Beijing, China, PEK', 163: 'Beijing - Nanyuan Airport, China, NAY', 164: 'Beira, Mozambique, BEW', 165: 'Beirut - Beirut Rafic Hariri International Airport, Lebanon, BEY', 166: 'Belem - Val de Cans International Airport, Brazil, BEL', 167: 'Belfast - George Best Belfast City Airport, United Kingdom, BHD', 168: 'Belfast - Belfast International Airport, United Kingdom, BFS', 169: 'Belgaum, India, IXG', 170: 'Belgrad (Beograd) - Belgrade Nikola Tesla International, Serbia, BEG', 171: 'Belize City - Philip S.W.Goldson International, Belize, BZE', 172: 'Bellingham (WA), USA, BLI', 173: 'Belo Horizonte - Tancredo Neves International Airport, Brazil, CNF', 174: 'Bemidji (MN), USA, BJI', 175: 'Benbecula, United Kingdom, BEB', 176: 'Benghazi (Bengasi), Libya, BEN', 177: 'Benguela, Angola, BUG', 178: 'Benton Harbour (MI), USA, BEH', 179: 'Berberati, Central African Republic, BBT', 180: 'Bergamo/Milan - Orio Al Serio, Italy, BGY', 181: 'Bergen, Norway, BGO', 182: 'Bergerac - Roumanieres, France, EGC', 183: 'Berlin, Germany, BER', 184: 'Berlin, Schoenefeld, Germany, SXF', 185: 'Berlin, Tegel, Germany, TXL', 186: 'Berlin, Tempelhof (ceased operating in 2008), Germany, THF', 187: 'Bermuda - L.F. Wade International Airport, Bermuda, BDA', 188: 'Berne, Bern-Belp, Switzerland, BRN', 189: 'Berne, Railway Service, Switzerland, ZDJ', 190: 'Bethel (AK), USA, BET', 191: 'Bhopal, India, BHO', 192: 'Bhubaneswar, India, BBI', 193: 'Biarritz, France, BIQ', 194: 'Bilbao, Spain, BIO', 195: 'Billings (MT), USA, BIL', 196: 'Billund, Denmark, BLL', 197: 'Bintulu, Malaysia, BTU', 198: 'Biraro, Central African Republic, IRO', 199: 'Birmingham - Birmingham International Airport, United Kingdom, BHX', 200: 'Birmingham (AL), USA, BHM', 201: 'Bishkek - Manas International Airport, Kyrgyzstan, FRU', 202: 'Bismarck (ND) - Bismarck Municipal Airport, USA, BIS', 203: 'Bissau - Osvaldo Vieiro International Airport, Guinea-Bissau, BXO', 204: 'Blackpool, United Kingdom, BLK', 205: 'Blackwater, Australia, BLT', 206: 'Blantyre (Mandala) - Chileka International Airport, Malawi, BLZ', 207: 'Blenheim, New Zealand, BHE', 208: 'Bloemfontein - Bloemfontein Airport, South Africa, BFN', 209: 'Bloomington (IL), USA, BMI', 210: 'Bloomington (IN), USA, BMG', 211: 'Bluefield (WV), USA, BLF', 212: 'Boa Vista, Brazil, BVB', 213: 'Bobo/Dioulasso, Burkina Faso, BOY', 214: 'Bodo, Norway, BOO', 215: 'Bodrum - Milas Airport, Turkey, BJV', 216: 'Bogota - El Nuevo Dorado International Airport, Colombia, BOG', 217: 'Boise (ID) - Boise Air Terminal, USA, BOI', 218: 'Bologna, Italy, BLQ', 219: 'Bombay (Mumbai) - Chhatrapati Shivaji International, India, BOM', 220: 'Bonaire, Netherlands Antilles, BON', 221: 'Bonaventure, PQ, Canada, YVB', 222: 'Bora Bora, French Polynesia, BOB', 223: 'Bordeaux - Bordeaux Airport, France, BOD', 224: 'Borrego Springs (CA), USA, BXS', 225: 'Boston (MA) - General Edward Lawrence Logan, USA, BOS', 226: "Bouake, Cote d'Ivoire, BYK", 227: 'Bourgas/Burgas, Bulgaria, BOJ', 228: 'Bournemouth, United Kingdom, BOH', 229: 'Bowen, Australia, ZBO', 230: 'Bozeman (MT), USA, BZN', 231: 'Bradford/Warren (PA) /Olean (NY), USA, BFD', 232: 'Brainerd (MN), USA, BRD', 233: 'Brampton Island, Australia, BMP', 234: 'Brasilia - President Juscelino Kubitschek International, Brazil, BSB', 235: 'Bratislava - M. R. Štefánik Airport, Slovakia, BTS', 236: 'Brazzaville - Maya-Maya Airport, Congo (ROC), BZV', 237: 'Bremen - Bremen Airport (Flughafen Bremen), Germany, BRE', 238: 'Brescia, Montichiari, Italy, VBS', 239: 'Brest, France, BES', 240: 'Bria, Central African Republic, BIV', 241: 'Bridgeport (CT), USA, BDR', 242: 'Bridgetown - Grantley Adams International, Barbados, BGI', 243: 'Brindisi, Italy, BDS', 244: 'Brisbane, Australia, BNE', 245: 'Bristol, United Kingdom, BRS', 246: 'Broennoeysund, Norway, BNN', 247: 'Broken Hill, Australia, BHQ', 248: 'Brookings (SD), USA, BKX', 249: 'Broome, Australia, BME', 250: 'Brunswick (GA), USA, BQK', 251: 'Brussels - Brussels Airport, Belgium, BRU', 252: 'Bucaramanga, Colombia, BGA', 253: 'Bucharest, Romania, BUH', 254: 'Bucharest - Henri Coandă International Airport, Romania, OTP', 255: 'Budapest - Budapest Ferihegy International Airport, Hungary, BUD', 256: 'Buenos Aires, Argentina, BUE', 257: 'Buenos Aires, Ezeiza International Airport, Argentina, EZE', 258: 'Buenos Aires, Jorge Newbery, Argentina, AEP', 259: 'Buffalo Range, Zimbabwe, BFO', 260: 'Buffalo/Niagara Falls (NY), USA, BUF', 261: 'Bujumbura - Bujumbura International Airport, Burundi, BJM', 262: 'Bulawayo, Zimbabwe, BUQ', 263: 'Bullhead City (NV), USA, BHC', 264: 'Bundaberg, Australia, BDB', 265: 'Burbank (CA), USA, BUR', 266: 'Burlington IA, USA, BRL', 267: 'Burlington (VT), USA, BTV', 268: 'Burnie (Wynyard), Australia, BWT', 269: 'Butte (MT), USA, BTM', 270: 'Cabinda, Angola, CAB', 271: 'Cagliari, Italy, CAG', 272: 'Cairns, Australia, CNS', 273: 'Cairo - Cairo International Airport, Egypt, CAI', 274: 'Calama - El Loa, Chile, CJC', 275: 'Calcutta (Kolkata) - Netaji Subhas Chandra, India, CCU', 276: 'Calgary - Calgary International Airport, Canada, YYC', 277: 'Cali, Colombia, CLO', 278: 'Calicut, India, CCJ', 279: 'Calvi, France, CLY', 280: 'Cambridge Bay, Canada, YCB', 281: 'Cambrigde, United Kingdom, CBG', 282: 'Campbeltown, United Kingdom, CAL', 283: 'Campo Grande, Brazil, CGR', 284: 'Canberra - Canberra Airport, Australia, CBR', 285: 'Cancun, Mexico, CUN', 286: 'Cannes – Mandelieu Airport, France, CEQ', 287: 'Canouan (island) - Canouan Airport, Saint Vincent & the Grenadines, CIW', 288: 'Cape Town - Cape Town International Airport, South Africa, CPT', 289: 'Caracas - Simón Bolívar International Airport, Venezuela, CCS', 290: 'Cardiff - Cardiff Airport, United Kingdom, CWL', 291: 'Carlsbad (CA), USA, CLD', 292: 'Carnarvon, Australia, CVQ', 293: 'Carnot, Central African Republic, CRF', 294: 'Carson City (NV), USA, CSN', 295: 'Casablanca, Morocco, CAS', 296: 'Casablanca, Mohamed V, Morocco, CMN', 297: 'Casa de Campo - La Romana International Airport, Dominican Republic, LRM', 298: 'Casino, Australia, CSI', 299: 'Casper (WY), USA, CPR', 300: 'Castaway, Fiji, CST', 301: 'Cartagena - Rafael Núñez International Airport, Colombia, CTG', 302: 'Castries - George F. L. Charles Airport, Saint Lucia, SLU', 303: 'Catania, Italy, CTA', 304: 'Cayenne - Cayenne-Rochambeau Airport, French Guiana, CAY', 305: 'Cottbus - Cottbus-Drewitz Airport, Germany, CBU', 306: 'Cebu City - Mactan-Cebu International, Philippines, CEB', 307: 'Cedar City (UT), USA, CDC', 308: 'Cedar Rapids IA, USA, CID', 309: 'Ceduna, Australia, CED', 310: 'Cessnock, Australia, CES', 311: 'Chabarovsk (Khabarovsk), Russia, KHV', 312: 'Chambery, France, CMF', 313: 'Champaign (IL), USA, CMI', 314: 'Chandigarh - Chandigarh International Airport, India, IXC', 315: 'Changchun, Jilin, PR China, CGQ', 316: 'Chania, Greece, CHQ', 317: 'Chaoyang, Beijing - Chaoyang Airport, PR China, CHG', 318: 'Charleston (SC), USA, CHS', 319: 'Charleston (WV) - Yeager Airport, USA, CRW', 320: 'Charlotte (NC), USA, CLT', 321: 'Charlottesville (VA), USA, CHO', 322: 'Charters Towers, Australia, CXT', 323: 'Chattanooga (TN), USA, CHA', 324: 'Chengdu - Shuangliu, Sichuan, PR China, CTU', 325: 'Chennai (Madras), India, MAA', 326: 'Cheyenne (WY) - Cheyenne Regional Airport, USA, CYS', 327: 'Chiang Mai - Chiang Mai International Airport, Thailand, CNX', 328: 'Chiba City, Japan, QCB', 329: 'Chicago (IL), Midway, USA, MDW', 330: "Chicago (IL), O'Hare International Airport, USA, ORD", 331: 'Chicago (IL), USA, CHI', 332: 'Chichen Itza, Mexico, CZA', 333: 'Chico (CA), USA, CIC', 334: 'Chihuahua - Gen Fierro Villalobos, Mexico, CUU', 335: 'Chios, Greece, JKH', 336: 'Chipata, Zambia, CIP', 337: 'Chisinau - Chişinău International Airport, Moldova, KIV', 338: 'Chita (Tschita), Russia, HTA', 339: 'Sapporo - New Chitose Airport, Japan, CTS', 340: 'Chitral, Pakistan, CJL', 341: 'Chittagong, Bangladesh, CGP', 342: 'Chongqing - Jiangbei International Airport, Sichuan, PR China, CKG', 343: 'Christchurch, New Zealand, CHC', 344: 'Chub Cay, Bahamas, CCZ', 345: 'Churchill, Canada, YYQ', 346: 'Cienfuegos - Jaime González Airport, Cuba, CFG', 347: "Cincinnati (OH) - Cincinnati/Northern Kentucky Int'l, USA, CVG", 348: 'Ciudad Del Carmen, Mexico, CME', 349: 'Ciudad Guayana, Venezuela, CGU', 350: 'Ciudad Juarez, Mexico, CJS', 351: 'Ciudad Obregon, Mexico, CEN', 352: 'Ciudad Victoria, Mexico, CVM', 353: 'Clarksburg (WV), USA, CKB', 354: 'Clermont, Australia, CMQ', 355: 'Clermont Ferrand, France, CFE', 356: 'Cleveland (OH) , Burke Lakefront, USA, BKL', 357: 'Cleveland (OH) - Cleveland Hopkins International, USA, CLE', 358: 'Cochabamba, Bolivia, CBB', 359: 'Cochin, India, COK', 360: 'Cody/Powell/Yellowstone (WY), USA, COD', 361: 'Coffmann Cove (AK), USA, KCC', 362: 'Coffs Harbour, Australia, CFS', 363: 'Coimbatore, India, CJB', 364: 'Colima, Mexico, CLQ', 365: 'College Station/Bryan (TX), USA, CLL', 366: 'Collinsville, Australia, KCE', 367: 'Cologne - Cologne Airport (Flughafen Köln/Bonn), Germany, CGN', 368: 'Colombo - Bandaranaike International Airport, Sri Lanka, CMB', 369: 'Colorado Springs (CO), USA, COS', 370: 'Columbia (SC) - Columbia Metropolitan Airport, USA, CAE', 371: 'Columbus (GA), USA, CSG', 372: 'Columbus (OH) - Port Columbus International, USA, CMH', 373: 'Conakry - Conakry International Airport, Guinea, CKY', 374: 'Concord (CA) - Buchanan Field, USA, CCR', 375: 'Concord (NH) - Concord Municipal Airport, USA, CON', 376: 'Constantine, Algeria, CZL', 377: "Constanta (Constanța) - Constanta Int'l Airport, Romania, CND", 378: 'Coober Pedy, Australia, CPD', 379: 'Cooktown, Australia, CTN', 380: 'Cooma, Australia, OOM', 381: 'Copenhagen - Copenhagen Airport, Denmark, CPH', 382: 'Cordoba, Argentina, COR', 383: 'Cordoba, Spain, ODB', 384: 'Cordova (AK), USA, CDV', 385: 'Corfu, Greece, CFU', 386: 'Cork, Ireland, ORK', 387: 'Corpus Christi (TX), USA, CRP', 388: 'Cotonou - Cotonou Cadjehoun Airport, Benin, COO', 389: 'Coventry - Baginton, United Kingdom, CVT', 390: 'Cozmel, Mexico, CZM', 391: 'Craig (AK), USA, CGA', 392: 'Crescent City (CA), USA, CEC', 393: 'Cuiaba - Marechal Rondon International Airport, Brazil, CGB', 394: 'Culiacan, Mexico, CUL', 395: 'Curacao - Curaçao International Airport, Netherlands Antilles, CUR', 396: 'Curitiba - Afonso Pena International Airport, Brazil, CWB', 397: 'Cuyo, Philippines, CYU', 398: 'Dakar - Léopold Sédar Senghor International Airport, Senegal, DKR', 399: 'Dalaman, Turkey, DLM', 400: 'Dalby, Australia, DBY', 401: 'Dalian - Zhoushuizi International Airport, Liaoning, PR China, DLC', 402: 'Dallas (TX) , Love Field, USA, DAL', 403: 'Dallas/Ft. Worth (TX) - Dallas/Fort Worth International, USA, DFW', 404: "Daloa, Cote d'Ivoire, DJO", 405: 'Damascus, International, Syria, DAM', 406: 'Dammam, King Fahad International, Saudi Arabien, DMM', 407: 'Danville (VA), USA, DAN', 408: "Dar es Salam (Daressalam) - Julius Nyerere Int'l, Tanzania, DAR", 409: 'Darwin, Australia, DRW', 410: 'Daydream Island, Australia, DDI', 411: 'Dayton (OH), USA, DAY', 412: 'Daytona Beach (FL), USA, DAB', 413: 'Decatur (IL), USA, DEC', 414: 'Deer Lake/Corner Brook, Canada, YDF', 415: 'Delhi - Indira Gandhi International Airport, India, DEL', 416: 'Den Haag (The Hague), Netherlands, HAG', 417: 'Denizli, Turkey, DNZ', 418: 'Denpasar/Bali, Indonesia, DPS', 419: 'Denver (CO) - Denver International Airport, USA, DEN', 420: 'Dera Ismail Khan - Dera Ismail Khan Airport, Pakistan, DSK', 421: 'Derby, Australia, DRB', 422: 'Derry (Londonderry), United Kingdom, LDY', 423: 'Des Moines (IA) - Des Moines International Airport, USA, DSM', 424: 'Detroit (MI) , Coleman A. Young Municipal, USA, DET', 425: 'Detroit (MI) , Wayne County Airport, USA, DTW', 426: 'Detroit (MI) , Metropolitan Area, USA, DTT', 427: 'Devils Lake (ND), USA, DVL', 428: 'Devonport, Australia, DPO', 429: 'Dhahran, Saudi Arabia, DHA', 430: 'Dhaka - Zia International Airport, Bangladesh, DAC', 431: 'Dili - Nicolau Lobato International Airport, Timor Leste (East Timor), DIL', 432: 'Dillingham (AK), USA, DLG', 433: 'Dinard, France, DNR', 434: 'Disneyland Paris, France, DLP', 435: 'Djerba, Tunisia, DJE', 436: 'Djibouti (city) - Djibouti-Ambouli International Airport, Djibouti, JIB', 437: 'Dodoma - Dodoma Airport, Tanzania, DOD', 438: 'Doha - Doha International Airport, Qatar, DOH', 439: 'Doncaster/Sheffield, Robin Hood International Airport, United Kingdom, DSA', 440: 'Donegal (Carrickfin), Ireland, CFN', 441: 'Dortmund, Germany, DTM', 442: 'Dothan (AL), USA, DHN', 443: 'Douala, Cameroon, DLA', 444: 'Dresden - Dresden Airport, Germany, DRS', 445: 'Dubai - Dubai International Airport, United Arab Emirates, DXB', 446: 'Dubbo, Australia, DBO', 447: 'Dublin - Dublin International Airport, Ireland, DUB', 448: 'Dubois (PA), USA, DUJ', 449: 'Dubrovnik, Croatia (Hrvatska), DBV', 450: 'Dubuque IA, USA, DBQ', 451: 'Duesseldorf - Düsseldorf International Airport, Germany, DUS', 452: 'Duluth (MN) /Superior (WI), USA, DLH', 453: 'Dundee, United Kingdom, DND', 454: 'Dunedin, New Zealand, DUD', 455: 'Dunk Island, Australia, DKI', 456: 'Durango (CO), USA, DRO', 457: 'Durban, South Africa, DUR', 458: 'Dushanbe (Duschanbe) - Dushanbe Airport, Tajikistan, DYU', 459: 'Dutch Harbor (AK), USA, DUT', 460: 'Dysart, Australia, DYA', 461: 'Dzaoudzi, Mayotte, DZA', 462: 'East London, South Africa, ELS', 463: 'Easter Island, Chile, IPC', 464: 'Eau Clarie (WI), USA, EAU', 465: 'Edinburgh - Edinburgh Airport, Scotland, UK, EDI', 466: 'Edmonton, Canada, YEA', 467: 'Edmonton, International, Canada, YEG', 468: 'Edmonton, Municipal, Canada, YXD', 469: 'Egilsstadir, Iceland, EGS', 470: 'Eindhoven, Netherlands, EIN', 471: 'Samana - Samaná El Catey International Airport, Dominican Republic, AZS', 472: 'Elba Island, Marina Di Campo, Italy, EBA', 473: 'Elat, Israel, ETH', 474: 'Elat, Ovula, Israel, VDA', 475: 'Elkhart (IN), USA, EKI', 476: 'Elko (NV), USA, EKO', 477: 'Ellisras, South Africa, ELL', 478: 'El Minya, Egypt, EMY', 479: 'Elmira (NY), USA, ELM', 480: 'El Paso (TX) - El Paso International Airport, USA, ELP', 481: 'Ely (NV), USA, ELY', 482: 'Emerald, Australia, EDR', 483: 'Emerald, Australia, EMD', 484: 'Enontekioe, Finland, ENF', 485: 'Entebbe - Entebbe International Airport, Uganda, EBB', 486: 'Erfurt - Erfurt Airport (Flughafen Erfurt), Germany, ERF', 487: 'Erie (PA), USA, ERI', 488: 'Eriwan (Yerevan, Jerevan), Armenia, EVN', 489: 'Erzincan, Turkey, ERC', 490: 'Erzurum, Turkey, ERZ', 491: 'Esbjerg, Denmark, EBJ', 492: 'Escanaba (MI), USA, ESC', 493: 'Esperance, Australia, EPR', 494: 'Eugene (OR), USA, EUG', 495: 'Eureka (CA), USA, ACV', 496: 'Evansville (IN), USA, EVV', 497: 'Evenes, Norway, EVE', 498: 'Exeter, United Kingdom, EXT', 499: 'Fairbanks (AK), USA, FAI', 500: 'Fair Isle (Shetland), United Kingdom, FIE', 501: 'Faisalabad, Pakistan, LYP', 502: 'Fargo (ND) (MN), USA, FAR', 503: 'Farmington (NM), USA, FMN', 504: 'Faro, Portugal, FAO', 505: 'Faroer - Vágar Airport, Denmark, FAE', 506: 'Fayetteville (AR), USA, FYV', 507: 'Fayetteville/Ft. Bragg (NC), USA, FAY', 508: 'Fes, Morocco, FEZ', 509: 'Figari, France, FSC', 510: 'Flagstaff (AZ), USA, FLG', 511: 'Flin Flon, Canada, YFO', 512: 'Flint (MI), USA, FNT', 513: 'Florence (Firenze) - Peretola Airport, Italy, FLR', 514: 'Florence (SC), USA, FLO', 515: 'Florianopolis, Brazil, FLN', 516: 'Floro, Norway, FRO', 517: 'Fort Albert, Canada, YFA', 518: 'Fortaleza - Pinto Martins Airport, Brazil, FOR', 519: 'Fort de France - Martinique Aimé Césaire International, Martinique, FDF', 520: 'Fort Dodge IA, USA, FOD', 521: 'Fort Huachuca/Sierra Vista (AZ), USA, FHU', 522: 'Fort Lauderdale/Hollywood (FL), USA, FLL', 523: 'Fort McMurray, Canada, YMM', 524: 'Fort Myers, Metropolitan Area (FL), USA, FMY', 525: 'Fort Myers, Southwest Florida Reg (FL), USA, RSW', 526: 'Fort Riley (KS) - Marshall AAF, USA, FRI', 527: 'Fort Smith, Canada, YSM', 528: 'Fort Smith (AR), USA, FSM', 529: 'Fort St. John, Canada, YXJ', 530: 'Fort Walton Beach (FL), USA, VPS', 531: 'Fort Wayne (IN), USA, FWA', 532: 'Fort Worth (TX) - Dallas/Fort Worth International Airport, USA, DFW', 533: 'Foula (Shetland), United Kingdom, FOU', 534: 'Francistown, Botswana, FRW', 535: 'Frankfurt/Main - Frankfurt Airport (Rhein-Main-Flughafen), Germany, FRA', 536: 'Frankfurt/Hahn, Germany, HHN', 537: 'Franklin/Oil City (PA), USA, FKL', 538: 'Fredericton, Canada, YFC', 539: 'Freeport - Grand Bahama International Airport, Bahamas, FPO', 540: 'Freetown - Freetown-Lungi International Airport, Sierra Leone, FNA', 541: 'Frejus, France, FRJ', 542: 'Fresno (CA), USA, FAT', 543: 'Friedrichshafen - Bodensee-Airport Friedrichshafen, Germany, FDH', 544: 'Fuerteventura, Spain, FUE', 545: 'Fujairah, International Airport, United Arab Emirates, FJR', 546: 'Fukuoka, Japan, FUK', 547: 'Fukushima - Fukushima Airport, Japan, FKS', 548: 'Funchal, Portugal, FNC', 549: 'Futuna, Wallis and Futuna Islands, FUT', 550: 'Gaborone - Sir Seretse Khama International Airport, Botswana, GBE', 551: 'Gadsden (AL), USA, GAD', 552: 'Gainesville (FL), USA, GNV', 553: 'Galway, Ireland, GWY', 554: 'Gander, Canada, YQX', 555: 'Garoua, Cameroon, GOU', 556: 'Gaza City - Gaza International Airport, Palestinian Territory, GZA', 557: 'Gaziantep, Turkey, GZT', 558: 'Gdansk, Poland, GDN', 559: 'Geelong, Australia, GEX', 560: 'Geneva - Geneva-Cointrin International Airport, Switzerland, GVA', 561: 'Genoa, Italy, GOA', 562: 'George, South Africa, GRJ', 563: 'Georgetown - Cheddi Jagan International Airport, Guyana, GEO', 564: 'Geraldton, Australia, GET', 565: 'Gerona, Spain, GRO', 566: 'Ghent (Gent), Belgium, GNE', 567: 'Gibraltar, Gibraltar, GIB', 568: 'Gilette (WY), USA, GCC', 569: 'Gilgit, Pakistan, GIL', 570: 'Gillam, Canada, YGX', 571: 'Gladstone, Australia, GLT', 572: 'Glasgow, Prestwick, United Kingdom, PIK', 573: 'Glasgow, United Kingdom, GLA', 574: 'Glasgow (MT), USA, GGW', 575: 'Glendive (MT), USA, GDV', 576: 'Goa, India, GOI', 577: 'Goiania, Santa Genoveva Airport, Brazil, GYN', 578: 'Gold Coast, Australia, OOL', 579: 'Goondiwindi, Australia, GOO', 580: 'Goose Bay, Canada, YYR', 581: 'Gorna, Bulgaria, GOZ', 582: 'Gothenburg (Göteborg) - Landvetter, Sweden, GOT', 583: 'Gove (Nhulunbuy), Australia, GOV', 584: 'Govenors Harbour, Bahamas, GHB', 585: 'Granada, Spain, GRX', 586: 'Grand Bahama International, Bahamas, FPO', 587: 'Grand Canyon (AZ), USA, GCN', 588: 'Grand Cayman - Owen Roberts International, Cayman Islands, GCM', 589: 'Grand Forks (ND), USA, GFK', 590: 'Grand Junction (CO), USA, GJT', 591: 'Grand Rapids (MI), USA, GRR', 592: 'Grand Rapids (MN), USA, GPZ', 593: 'Graz, Austria, GRZ', 594: 'Great Falls (MT), USA, GTF', 595: 'Great Keppel Island, Australia, GKL', 596: 'Green Bay (WI), USA, GRB', 597: 'Greenbrier/Lewisburg (WV), USA, LWB', 598: 'Greensboro/Winston Salem (NC), USA, GSO', 599: 'Greenville (MS), USA, GLH', 600: 'Greenville (NC), USA, PGV', 601: 'Greenville/Spartanburg (SC), USA, GSP', 602: 'Grenada - Point Salines Airport also Maurice Bishop, Grenada, GND', 603: 'Grenoble, France, GNB', 604: 'Griffith, Australia, GFF', 605: 'Groningen - Eelde, Netherlands, GRQ', 606: 'Groote Eylandt - Alyangula, Australia, GTE', 607: 'Groton/New London (CT), USA, GON', 608: 'Guadalajara, Mexico, GDL', 609: 'Guadalcanal, Solomon Islands, GSI', 610: 'Guam, Guam, GUM', 611: 'Guangzhou (Canton) - Baiyun International Airport, Guangdong, PR China, CAN', 612: 'Sao Paulo - Guarulhos International, Brazil, GRU', 613: 'Guatemala City - La Aurora International Airport, Guatemala, GUA', 614: 'Guayaquil - Simon Bolivar, Ecuador, GYE', 615: 'Guernsey, Channel Islands, GCI', 616: 'Guettin, Germany, GTI', 617: 'Gulfport/Biloxi (MS), USA, GPT', 618: 'Guilin - Liangjiang, Guangxi, PR China, KWL', 619: 'Gulu, Uganda, ULU', 620: 'Gunnison/Crested Butte (CO), USA, GUC', 621: 'Guwahati, India, GAU', 622: 'Gwadar, Pakistan, GWD', 623: 'Gweru, Zimbabwe, GWE', 624: 'Gympie, Australia, GYP', 625: 'Hachijo Jima, Japan, HAC', 626: 'Hagåtña - Guam International Airport, Guam, GUM', 627: 'Haifa, Israel, HFA', 628: 'Haines (AK), USA, HNS', 629: 'Hakodate, Japan, HKD', 630: 'Halifax International, Canada, YHZ', 631: 'Hall Beach, Canada, YUX', 632: 'Hamburg - Fuhlsbuettel, Germany, HAM', 633: 'Hamilton, Australia, HLT', 634: 'Hamilton, Canada, YHM', 635: 'Hamilton, New Zealand, HLZ', 636: 'Hamilton Island, Australia, HTI', 637: 'Hammerfest, Norway, HFT', 638: 'Hancock (MI), USA, CMX', 639: 'Hangchow (Hangzhou), Zhejiang, PR China, HGH', 640: 'Hannover, Germany, HAJ', 641: 'Hanoi - Noi Bai International Airport, Vietnam, HAN', 642: 'Harare - Harare International Airport, Zimbabwe, HRE', 643: 'Harbin (Haerbin), Heilongjiang, PR China, HRB', 644: 'Harlingen/South Padre Island (TX), USA, HRL', 645: 'Harrington Harbour, PQ, Canada, YHR', 646: 'Harrisburg (PA) - Harrisburg Skyport, USA, HAR', 647: 'Harrisburg (PA) - Harrisburg International, USA, MDT', 648: 'Hartford (CT) /Springfield (MA), USA, BDL', 649: 'Hatyai (Hat Yai), Thailand, HDY', 650: 'Haugesund, Norway, HAU', 651: 'Havana - José Martí International, Cuba, HAV', 652: 'Havre (MT), USA, HVR', 653: 'Hayman Island, Australia, HIS', 654: 'Helena (MT), USA, HLN', 655: 'Helsingborg, Sweden, JHE', 656: 'Helsinki - Vantaa, Finland, HEL', 657: 'Heraklion, Greece, HER', 658: 'Hermosillo - Gen. Pesqueira Garcia, Mexico, HMO', 659: 'Hervey Bay, Australia, HVB', 660: 'Hibbing (MN), USA, HIB', 661: 'Hickory (NC), USA, HKY', 662: 'Hilo (HI), USA, ITO', 663: 'Hilton Head Island (SC), USA, HHH', 664: 'Hinchinbrook Island, Australia, HNK', 665: 'Hiroshima International, Japan, HIJ', 666: 'Ho Chi Minh City (Saigon) - Tan Son Nhat International, Viet Nam, SGN', 667: 'Hobart, Australia, HBA', 668: 'Hof, Germany, HOQ', 669: 'Holguin, Cuba, HOG', 670: 'Home Hill, Australia, HMH', 671: 'Homer (AK), USA, HOM', 672: 'Hong Kong - International Airport (HKIA), Hong Kong, HKG', 673: 'Hong Kong - Chek Lap Kok, Hong Kong, ZJK', 674: 'Honiara Henderson International, Solomon Islands, HIR', 675: 'Honolulu (HI) - Honolulu International Airport, USA, HNL', 676: 'Hoonah (AK), USA, HNH', 677: 'Horta, Portugal, HOR', 678: 'Houston (TX) , Hobby, USA, HOU', 679: 'Houston, TX - George Bush Intercontinental Airport, USA, IAH', 680: 'Huahine, French Polynesia, HUH', 681: 'Huatulco, Mexico, HUX', 682: 'Hue - Phu Bai, Viet Nam, HUI', 683: 'Humberside, United Kingdom, HUY', 684: 'Huntington (WV), USA, HTS', 685: 'Huntsville (AL), USA, HSV', 686: 'Hurghada International, Egypt, HRG', 687: 'Huron (SD), USA, HON', 688: 'Hwange National Park, Zimbabwe, HWN', 689: 'Hyannis (MA), USA, HYA', 690: 'Hydaburg (AK), USA, HYG', 691: 'Hyderabad - Rajiv Gandhi International Airport, India, HYD', 692: 'Hyderabad, Pakistan, HDD', 693: 'Ibiza, Ibiza/Spain, IBZ', 694: 'Idaho Falls (ID), USA, IDA', 695: 'Iguazu, Cataratas, Argentina, IGR', 696: 'Ile des Pins, New Caledonia, ILP', 697: 'Ile Ouen, New Caledonia, IOU', 698: 'Iliamna (AK), USA, ILI', 699: 'Imperial (CA), USA, IPL', 700: 'Incercargill, New Zealand, IVC', 701: 'Incheon, Incheon International Airport, Korea South, ICN', 702: 'Indianapolis (IN) International, USA, IND', 703: 'Ingham, Australia, IGH', 704: 'Innisfail, Australia, IFL', 705: 'Innsbruck - Kranebitten, Austria, INN', 706: 'International Falls (MN), USA, INL', 707: 'Inuvik, Canada, YEV', 708: 'Invercargill, New Zealand, IVC', 709: 'Inverness, United Kingdom, INV', 710: 'Inykern (CA), USA, IYK', 711: 'Iqaluit (Frobisher Bay), Canada, YFB', 712: 'Iquitos, Peru, IQT', 713: 'Irkutsk, Russia, IKT', 714: 'Ishigaki - New Ishigaki Airport, Japan, ISG', 715: 'Islamabad - Benazir Bhutto International Airport, Pakistan, ISB', 716: 'Islay, United Kingdom, ILY', 717: 'Isle of Man, , IOM', 718: 'Istanbul - Istanbul Atatürk Airport, Turkey, IST', 719: 'Istanbul - Sabiha Gokcen, Turkey, SAW', 720: 'Ithaca/Cortland (NY), USA, ITH', 721: 'Ivalo, Finland, IVL', 722: 'Ixtapa/Zihuatenejo, Mexico, ZIH', 723: 'Izmir, Turkey, IZM', 724: 'Izmir - Adnan Menderes Airport, Turkey, ADB', 725: 'Jackson Hole (WY), USA, JAC', 726: 'Jackson (MI) - Reynolds Municipal, USA, JXN', 727: 'Jackson, MN, USA, MJQ', 728: 'Jackson (MS) - Jackson Internationall, USA, JAN', 729: 'Jackson (MS) - Hawkins Field, USA, HKS', 730: 'Jackson (TN) - Mckellar, USA, MKL', 731: 'Jackson Hole (WY), USA, JAC', 732: 'Jacksonville (AR) Little Rock AFB, USA, LRF', 733: 'Jacksonville (FL) - Cecil Field NAS, USA, NZC', 734: 'Jacksonville (FL) Jacksonville NAS, USA, NIP', 735: 'Jacksonville (FL) - International, USA, JAX', 736: 'Jacksonville (FL) - Craig Municipal, USA, CRG', 737: 'Jacksonville (IL) - Municipal Airport, USA, IJX', 738: 'Jacksonville (NC), USA, OAJ', 739: 'Jacksonville (TX), USA, JKV', 740: 'Jacmel, Haiti, JAK', 741: 'Jacobabad, Pakistan, JAG', 742: 'Jacobina, Brazil, JCM', 743: 'Jacquinot Bay, Papua New Guinea, JAQ', 744: 'Jaffna - Kankesanturai, Sri Lanka, JAF', 745: 'Jagdalpur, India, JGB', 746: 'Jaipur - Sanganeer, India, JAI', 747: 'Jaisalmer, India, JSA', 748: 'Jakarta - Halim Perdana Kusuma, Indonesia, HLP', 749: 'Jakarta - Metropolitan Area, Indonesia, JKT', 750: 'Jakarta - Soekarno-Hatta International, Indonesia, CGK', 751: 'Jalalabad, Afghanistan, JAA', 752: 'Jalandhar, India, JLR', 753: 'Jalapa, Mexico, JAL', 754: 'Jales, Brazil, JLS', 755: 'Jaluit Island, Marshall Islands, UIT', 756: 'Jamba, Angola, JMB', 757: 'Jambi - Sultan Taha Syarifudn, Indonesia, DJB', 758: 'Jambol, Bulgaria, JAM', 759: 'Jamestown (ND), USA, JMS', 760: 'Jamestown (NY), USA, JHW', 761: 'Jammu - Satwari, India, IXJ', 762: 'Jamnagar - Govardhanpur, India, JGA', 763: 'Jamshedpur - Sonari Airport, India, IXW', 764: 'Janakpur, Nepal, JKR', 765: 'Jandakot, Australia, JAD', 766: 'Janesville (WI) - Rock County, USA, JVL', 767: 'Januaria, Brazil, JNA', 768: 'Jaque, Panama, JQE', 769: 'Jatai, Brazil, JTI', 770: 'Jauja, Peru, JAU', 771: 'Jayapura - Sentani, Indonesia, DJJ', 772: 'Jeddah - King Abdulaziz International, Saudi Arabia, JED', 773: 'Jefferson City (MO) - Jefferson Memorial, USA, JEF', 774: 'Jeremie - Jeremie Airport, Haiti, JEE', 775: 'Jerez de la Frontera/Cadiz - La Parra, Spain, XRY', 776: 'Jersey, Channel Islands, JER', 777: 'Jerusalem - Atarot Airport (closed), Israel, JRS', 778: 'Jessore - Jessore Airport, Bangladesh, JSR', 779: 'Jeypore - Jeypore Airport, India, PYB', 780: "Ji'an, Jiangxi, China, JGS", 781: 'Jiamusi - Jiamusi Airport, PR China, JMU', 782: 'Jiayuguan - Jiayuguan Airport, PR China, JGN', 783: 'Jijel, Algeria, GJL', 784: 'Jijiga, Ethiopia, JIJ', 785: 'Jilin, PR China, JIL', 786: 'Jimma, Ethiopia, JIM', 787: 'Jinan, Shandong, PR China, TNA', 788: 'Jingdezhen, PR China, JDZ', 789: 'Jinghong - Gasa Airport, PR China, JHG', 790: 'Jining, PR China, JNG', 791: 'Jinja, Uganda, JIN', 792: 'Jinjiang, PR China, JJN', 793: 'Jinka - Baco/Jinka Airport, Ethiopia, BCO', 794: 'Jinzhou - Jinzhou Airport, PR China, JNZ', 795: 'Jipijapa, Ecuador, JIP', 796: 'Jiri, Nepal, JIR', 797: 'Jiujiang - Jiujiang Lushan Airport, PR China, JIU', 798: 'Jiwani, Pakistan, JIW', 799: 'Joacaba, Brazil, JCB', 800: 'Joao Pessoa - Castro Pinto Airport, Brazil, JPA', 801: 'Jodhpur, India, JDH', 802: 'Jönköping (Jonkoping) - Axamo Airport, Sweden, JKG', 803: 'Joensuu, Finland, JOE', 804: 'Johannesburg - OR Tambo International Airport, South Africa, JNB', 805: 'Johnson City (NY) - Binghamton/Endicott/Johnson, USA, BGM', 806: 'Johnston Island, USA, JON', 807: 'Johnstown (PA), USA, JST', 808: 'Johor Bahru - Sultan Ismail International, Malaysia, JHB', 809: 'Joinville - Cubatao Airport, Brazil, JOI', 810: 'Jolo, Philippines, JOL', 811: 'Jomsom, Nepal, JMO', 812: 'Jonesboro (AR) Jonesboro Airport, USA, JBR', 813: 'Joplin (MO), USA, JLN', 814: 'Jorhat - Rowriah Airport, India, JRH', 815: 'Jos, Nigeria, JOS', 816: 'Jose De San Martin, Argentina, JSM', 817: 'Jouf, Saudi Arabia, AJF', 818: 'Juanjui, Peru, JJI', 819: 'Juba, South Sudan, JUB', 820: 'Juist (island), Germany, JUI', 821: 'Juiz De Fora - Francisco De Assis Airport, Brazil, JDF', 822: 'Jujuy - El Cadillal Airport, Argentina, JUJ', 823: 'Julia Creek, Australia, JCK', 824: 'Juliaca, Peru, JUL', 825: 'Jumla, Nepal, JUM', 826: 'Jundah, Australia, JUN', 827: 'Juneau (AK) - Juneau International Airport, USA, JNU', 828: 'Junin, Argentina, JNI', 829: 'Juticalpa, Honduras, JUT', 830: 'Jwaneng, Botswana, JWA', 831: 'Jyväskylä (Jyvaskyla), Finland, JYV', 832: 'Kabul - Khwaja Rawash Airport, Afghanistan, KBL', 833: 'Kagoshima, Japan, KOJ', 834: 'Kahramanmaras, Turkey, KCM', 835: 'Kahului (HI), USA, OGG', 836: 'Kajaani, Finland, KAJ', 837: 'Kalamata, Greece, KLX', 838: 'Kalamazoo/Battle Creek (MI), USA, AZO', 839: 'Kalgoorlie, Australia, KGI', 840: 'Kaliningrad, Russia, KGD', 841: 'Kalispell (MT), USA, FCA', 842: 'Kalmar, Sweden, KLR', 843: 'Kamloops, BC, Canada, YKA', 844: 'Kamuela (HI), USA, MUE', 845: 'Kano, Nigeria, KAN', 846: 'Kanpur, India, KNU', 847: 'Kansas City (MO) - Kansas City International Airport, USA, MCI', 848: 'Kaohsiung International, Taiwan, KHH', 849: 'Kapalua West (HI), USA, JHM', 850: 'Karachi - Jinnah International Airport, Pakistan, KHI', 851: 'Karlsruhe-Baden - Soellingen, Germany, FKB', 852: 'Karlstad, Sweden, KSD', 853: 'Karpathos, Greece, AOK', 854: 'Karratha, Australia, KTA', 855: 'Kars, Turkey, KYS', 856: 'Karumba, Australia, KRB', 857: 'Karup, Denmark, KRP', 858: 'Kaschechawan, PQ, Canada, ZKE', 859: 'Kassala, Sudan, KSL', 860: 'Katherine, Australia, KTR', 861: 'Kathmandu - Tribhuvan International Airport, Nepal, KTM', 862: 'Katima Mulilo/Mpacha, Namibia, MPA', 863: 'Kauhajoki, Finland, KHJ', 864: 'Kaunakakai (HI), USA, MKK', 865: 'Kavalla, Greece, KVA', 866: 'Kayseri, Turkey, ASR', 867: 'Kazan - Kazan International Airport, Russia, KZN', 868: 'Keetmanshoop, Namibia, KMP', 869: 'Kelowna, BC, Canada, YLW', 870: 'Kemi/Tornio, Finland, KEM', 871: 'Kenai (AK), USA, ENA', 872: 'Kent (Manston) Kent International, United Kingdom, MSE', 873: 'Kerry County, Ireland, KIR', 874: 'Ketchikan (AK), USA, KTN', 875: 'Key West (FL), USA, EYW', 876: 'Khamis Mushayat, Saudi Arabia, AHB', 877: 'Kharga - New Valley, Egypt, UVL', 878: 'Kharkov, Ukraine, HRK', 879: 'Khartoum - Khartoum International Airport, Sudan, KRT', 880: 'Khuzdar, Pakistan, KDD', 881: 'Kiel - Holtenau, Germany, KEL', 882: 'Kiev - Borispol, Ukraine, KBP', 883: 'Kiev - Zhulhany, Ukraine, IEV', 884: 'Kigali - Gregoire Kayibanda, Rwanda, KGL', 885: 'Kilimadjaro, Tanzania, JRO', 886: 'Killeem (TX), USA, ILE', 887: 'Kimberley, South Africa, KIM', 888: 'King Island, King Island (Australia), KNS', 889: 'King Salomon (AK), USA, AKN', 890: 'Kingscote, Australia, KGC', 891: 'Kingston - Norman Manley, Jamaica, KIN', 892: 'Kingston (NC), USA, ISO', 893: 'Kingstown - E. T. Joshua Airport, Saint Vincent and the Grenadines, SVD', 894: "Kinshasa - N'Djili, Congo (DRC), FIH", 895: 'Kiritimati (island) - Cassidy International Airport, Kiribati, CXI', 896: 'Kirkenes, Norway, KKN', 897: 'Kirkuk, Iraq, KIK', 898: 'Kirkwall (Orkney), United Kingdom, KOI', 899: 'Kiruna, Sweden, KRN', 900: 'Kisangani, Congo (DRC), FKI', 901: 'Kittilä, Finland, KTT', 902: 'Kitwe, Zambia, KIW', 903: 'Klagenfurt, Austria, KLU', 904: 'Klamath Fall (OR), USA, LMT', 905: 'Klawock (AK), USA, KLW', 906: 'Kleinsee, South Africa, KLZ', 907: 'Knock, Ireland, NOC', 908: 'Knoxville (TN), USA, TYS', 909: 'Kobe, Japan, UKB', 910: 'Kochi, Japan, KCZ', 911: 'Köln, Köln/Bonn, Germany, CGN', 912: 'Kodiak (AK), USA, ADQ', 913: 'Kohat, Pakistan, OHT', 914: 'Kokkola/Pietarsaari, Finland, KOK', 915: 'Kolkata (Calcutta) - Netaji Subhas Chandra, India, CCU', 916: 'Komatsu, Japan, KMQ', 917: 'Kona (HI), USA, KOA', 918: 'Konya, Turkey, KYA', 919: "Korhogo, Cote d'Ivoire, HGO", 920: 'Kos, Greece, KGS', 921: 'Kota Kinabalu, Malaysia, BKI', 922: 'Kotzbue (AK), USA, OTZ', 923: 'Kowanyama, Australia, KWM', 924: 'Krakow (Cracow) - John Paul II International Airport, Poland, KRK', 925: 'Kristiansand, Norway, KRS', 926: 'Kristianstad, Sweden, KID', 927: 'Kristiansund, Norway, KSU', 928: 'Kuala Lumpur - International Airport, Malaysia, KUL', 929: 'Kuala Lumpur - Sultan Abdul Aziz Shah, Malaysia, SZB', 930: 'Kuantan, Malaysia, KUA', 931: 'Kuching, Malaysia, KCH', 932: 'Kumamoto, Japan, KMJ', 933: 'Kununurra, Australia, KNX', 934: 'Kuopio, Finland, KUO', 935: 'Kushiro, Japan, KUH', 936: 'Kuujjuaq (FortChimo), Canada, YVP', 937: 'Kuujjuarapik, Canada, YGW', 938: 'Kuusamo, Finland, KAO', 939: 'Kuwait - Kuwait International, Kuwait, KWI', 940: 'Kyoto, Japan, UKY', 941: 'Labe, Guinea, LEK', 942: 'Labouchere Bay (AK), USA, WLB', 943: 'Labuan, Malaysia, LBU', 944: 'Lac Brochet, MB, Canada, XLB', 945: 'La Coruna, Spain, LCG', 946: 'La Crosse (WI), USA, LSE', 947: 'Lae - Lae Nadzab Airport, Papua New Guinea, LAE', 948: 'La Rochelle, France, LRH', 949: 'Lafayette (IN), USA, LAF', 950: 'Lafayette, La, USA, LFT', 951: 'Lagos - Murtala Muhammed Airport, Nigeria, LOS', 952: 'La Grande, Canada, YGL', 953: 'Lahore, Pakistan, LHE', 954: 'Lake Charles (LA), USA, LCH', 955: 'Lake Havasu City (AZ), USA, HII', 956: 'Lake Tahoe (CA), USA, TVL', 957: 'Lakselv, Norway, LKL', 958: 'Lambarene, Gabon, LBQ', 959: 'Lamezia Terme, Italy, SUF', 960: 'Lampedusa, Italy, LMP', 961: 'Lanai City (HI), USA, LNY', 962: 'Lancaster (PA), USA, LNS', 963: "Land's End, United Kingdom, LEQ", 964: 'Langkawi (islands), Malaysia, LGK', 965: 'Lannion, France, LAI', 966: 'Lanseria, South Africa, HLA', 967: 'Lansing (MI), USA, LAN', 968: 'La Paz - El Alto, Bolivia, LPB', 969: 'La Paz - Leon, Mexico, LAP', 970: 'Lappeenranta, Finland, LPP', 971: 'Laramie (WY), USA, LAR', 972: 'Laredo (TX), USA, LRD', 973: 'Larnaca, Cyprus, LCA', 974: 'Las Palmas, Spain, LPA', 975: 'Las Vegas (NV), USA, LAS', 976: 'Latrobe (PA), USA, LBE', 977: 'Launceston, Australia, LST', 978: 'Laurel/Hattisburg (MS), USA, PIB', 979: 'Laverton, Australia, LVO', 980: 'Lawton (OK), USA, LAW', 981: 'Lazaro Cardenas, Mexico, LZC', 982: 'Leaf Rapids, Canada, YLR', 983: 'Learmouth (Exmouth), Australia, LEA', 984: 'Lebanon (NH), USA, LEB', 985: 'Leeds/Bradford, United Kingdom, LBA', 986: 'Leinster, Australia, LER', 987: 'Leipzig, Germany, LEJ', 988: 'Lelystad, Netherlands, LEY', 989: 'Leon, Mexico, BJX', 990: 'Leonora, Australia, LNO', 991: 'Lerwick/Tingwall (Shetland Islands), United Kingdom, LWK', 992: 'Lewiston (ID), USA, LWS', 993: 'Lewistown (MT), USA, LWT', 994: 'Lexington (KY), USA, LEX', 995: 'Libreville, Gabon, LBV', 996: 'Lidkoeping, Sweden, LDK', 997: 'Liege, Belgium, LGG', 998: 'Lifou, Loyaute, Pazifik, LIF', 999: 'Lihue (HI), USA, LIH', 1000: 'Lille - Lille Airport, France, LIL', 1001: 'Lilongwe - Lilongwe International, Malawi, LLW', 1002: 'Lima - J Chavez International, Peru, LIM', 1003: 'Limassol, Cyprus, QLI', 1004: 'Limoges, France, LIG', 1005: 'Lincoln (NE), USA, LNK', 1006: 'Lindeman Island, Australia, LDC', 1007: 'Linz - Hoersching, Austria, LNZ', 1008: 'Lisala, Congo (DRC), LIQ', 1009: 'Lisbon - Lisboa, Portugal, LIS', 1010: 'Lismore, Australia, LSY', 1011: 'Little Rock (AR), USA, LIT', 1012: 'Liverpool, United Kingdom, LPL', 1013: 'Lizard Island, Australia, LZR', 1014: 'Ljubljana - Brnik, Slovenia, LJU', 1015: 'Lockhart River, Australia, IRG', 1016: 'Lome, Togo, LFW', 1017: 'London, Canada, YXU', 1018: 'London Metropolitan Area, United Kingdom, LON', 1019: 'London - City Airport, United Kingdom, LCY', 1020: 'London - Gatwick, United Kingdom, LGW', 1021: 'London - Heathrow, United Kingdom, LHR', 1022: 'London - Luton, United Kingdom, LTN', 1023: 'London - Stansted, United Kingdom, STN', 1024: 'Londonderry - Eglinton, United Kingdom, LDY', 1025: 'Long Beach (CA), USA, LGB', 1026: 'Long Island (AK), USA, LIJ', 1027: 'Long Island, Islip (NY) - Mac Arthur, USA, ISP', 1028: 'Longreach, Australia, LRE', 1029: 'Longview/Kilgore (TX), USA, GGG', 1030: 'Longyearbyen - Svalbard, Svalbard/Norway, LYR', 1031: 'Loreto, Mexico, LTO', 1032: 'Lorient, France, LRT', 1033: 'Los Angeles (CA) - International, USA, LAX', 1034: 'Los Cabos, Mexico, SJD', 1035: 'Los Mochis, Mexico, LMM', 1036: 'Los Rodeos, Teneriffa/Spain, TFN', 1037: 'Losinj - Losinj Arpt, Croatia (Hrvatska), LSZ', 1038: 'Lourdes/Tarbes, France, LDE', 1039: 'Louisville (KY), USA, SDF', 1040: 'Luanda - 4 de Fevereiro, Angola, LAD', 1041: 'Lubbock (TX), USA, LBB', 1042: 'Lucknow, India, LKO', 1043: 'Luederitz, Namibia, LUD', 1044: 'Luga, Malta, MLA', 1045: 'Lugano, Switzerland, LUG', 1046: 'Lulea, Sweden, LLA', 1047: 'Lumbumbashi, Congo (DRC), FBM', 1048: 'Lusaka - Lusaka International Airport, Zambia, LUN', 1049: 'Lusisiki, South Africa, LUJ', 1050: 'Luxembourg, Luxembourg, LUX', 1051: 'Luxi - Mangshi, Yunnan, PR China, LUM', 1052: 'Luxor, Egypt, LXR', 1053: 'Lvov (Lwow, Lemberg), Ukraine, LWO', 1054: 'Lydd - Lydd International Airport, United Kingdom, LYX', 1055: 'Lynchburg (VA), USA, LYH', 1056: 'Lyon - Lyon-Saint Exupéry Airport, France, LYS', 1057: 'Lyons (KS) - Rice County Municipal, USA, LYO', 1058: 'Maastricht/Aachen, Netherlands, MST', 1059: 'Macapa - Alberto Alcolumbre International Airport, Brazil, MCP', 1060: 'Macau - Macau International Airport, Macau, China SAR, MFM', 1061: 'Maceio - Zumbi dos Palmares International Airport, Brazil, MCZ', 1062: 'Mackay, Australia, MKY', 1063: 'Macon (GA), USA, MCN', 1064: 'Mactan Island - Nab, Philippines, NOP', 1065: 'Madinah (Medina) - Mohammad Bin Abdulaziz, Saudi Arabia, MED', 1066: 'Madison (WI) - Dane County Regional Airport, USA, MSN', 1067: 'Madras (Chennai) - Chennai International Airport, India, MAA', 1068: 'Madrid - Barajas Airport, Spain, MAD', 1069: 'Mahe - Seychelles International, Seychelles, SEZ', 1070: 'Mahon, Spain, MAH', 1071: 'Maitland, Australia, MTL', 1072: 'Majunga, Madagascar, MJN', 1073: 'Makung, Taiwan, MZG', 1074: 'Malabo - Malabo International Airport, Equatorial Guinea, SSG', 1075: 'Malaga, Spain, AGP', 1076: 'Malatya, Turkey, MLX', 1077: 'Male - Velana International Airport, Maledives, MLE', 1078: 'Malindi, Kenya, MYD', 1079: 'Malmo (Malmoe), Sweden, MMA', 1080: 'Malmo (Malmö) - Malmö Airport, Sweden, MMX', 1081: "Man, Cote d'Ivoire, MJC", 1082: 'Managua - Augusto C Sandino, Nicaragua, MGA', 1083: 'Manaus - Eduardo Gomes International Airport, Brazil, MAO', 1084: 'Manchester, United Kingdom, MAN', 1085: 'Manchester (NH), USA, MHT', 1086: 'Mandalay - Mandalay-Annisaton Airport, Myanmar, MDL', 1087: 'Manguna, Papua New Guinea, MFO', 1088: 'Manihi, French Polynesia, XMH', 1089: 'Manila - Ninoy Aquino International, Philippines, MNL', 1090: 'Manzanillo, Mexico, ZLO', 1091: 'Manzini - Matsapha International, Swaziland, MTS', 1092: 'Maputo - Maputo International, Mozambique, MPM', 1093: 'Mar del Plata, Argentina, MDQ', 1094: 'Maracaibo - La Chinita International, Venezuela, MAR', 1095: 'Maradi, Niger, MFQ', 1096: 'Maras, Turkey, KCM', 1097: 'Marathon (FL), USA, MTH', 1098: 'Mardin, Turkey, MQM', 1099: 'Mare, New Caledonia, MEE', 1100: 'Margate, South Africa, MGH', 1101: 'Margerita, Venezuela, PMV', 1102: 'Maribor, Slovenia, MBX', 1103: 'Mariehamn (Maarianhamina), Finland, MHQ', 1104: 'Maroua, Cameroon, MVR', 1105: 'Marquette (MI), USA, MQT', 1106: 'Marrakesh - Menara Airport, Morocco, RAK', 1107: 'Marsa Alam, Egypt, RMF', 1108: 'Marsa Matrah (Marsa Matruh), Egypt, MUH', 1109: 'Marseille - Marseille Provence Airport, France, MRS', 1110: 'Marsh Harbour, Bahamas, MHH', 1111: "Martha's Vineyard (MA), USA, MVY", 1112: 'Martinsburg (WV), USA, MRB', 1113: 'Maryborough, Australia, MBH', 1114: 'Maseru - Moshoeshoe International, Lesotho, MSU', 1115: 'Mason City IA, USA, MCW', 1116: 'Masvingo, Zimbabwe, MVZ', 1117: 'Matsumoto, Nagano, Japan, MMJ', 1118: 'Matsuyama, Japan, MYJ', 1119: 'Mattoon (IL), USA, MTO', 1120: 'Maun, Botswana, MUB', 1121: 'Maupiti, French Polynesia, MAU', 1122: 'Mauritius - S.Seewoosagur Ram International, Mauritius, MRU', 1123: 'Mayaguez, Puerto Rico, MAZ', 1124: 'Mazatlan, Mexico, MZT', 1125: 'McAllen (TX), USA, MFE', 1126: "Medan - Polania Int'l (now Soewondo AFB), Indonesia, MES", 1127: 'Medan - Kualanamu International, Indonesia, KNO', 1128: 'Medellin - José María Córdova International, Colombia, MDE', 1129: 'Medford (OR), USA, MFR', 1130: 'Medina, Saudi Arabia, MED', 1131: 'Meekatharra, Australia, MKR', 1132: 'Melbourne - Melbourne Airport (Tullamarine), Australia, MEL', 1133: 'Melbourne (FL), USA, MLB', 1134: 'Melville Hall, Dominica, DOM', 1135: 'Memphis (TN), USA, MEM', 1136: 'Mendoza, Argentina, MDZ', 1137: 'Manado, Indonesia, MDC', 1138: 'Merced (CA), USA, MCE', 1139: 'Merida, Mexico, MID', 1140: 'Meridian (MS), USA, MEI', 1141: 'Merimbula, Australia, MIM', 1142: 'Messina, South Africa, MEZ', 1143: 'Metlakatla (AK), USA, MTM', 1144: 'Metz - Frescaty, France, MZM', 1145: 'Metz/Nancy Metz-Nancy-Lorraine, France, ETZ', 1146: 'Mexicali, Mexico, MXL', 1147: 'Mexico City - Mexico City International Airport, Mexico, MEX', 1148: 'Mexico City - Atizapan, Mexico, AZP', 1149: 'Mexico City - Juarez International, Mexico, MEX', 1150: 'Mexico City - Santa Lucia, Mexico, NLU', 1151: 'Mfuwe, Zambia, MFU', 1152: 'Miami (FL), USA, MIA', 1153: 'Mianwali, Pakistan, MWD', 1154: 'Middlemount, Australia, MMM', 1155: 'Midland/Odessa (TX), USA, MAF', 1156: 'Midway Island - Sand Island Field, US Minor Outlying Islands, MDY', 1157: 'Mikkeli, Finland, MIK', 1158: 'Milan, Italy, MIL', 1159: 'Milan - Linate, Italy, LIN', 1160: 'Milan - Malpensa, Italy, MXP', 1161: 'Milan - Orio Al Serio, Italy, BGY', 1162: 'Mildura, Australia, MQL', 1163: 'Miles City (MT), USA, MLS', 1164: 'Milford Sound, New Zealand, MFN', 1165: 'Milwaukee (WI), USA, MKE', 1166: 'Minatitlan, Mexico, MTT', 1167: 'Mineralnye Vody, Russia, MRV', 1168: 'Minneapolis - St. Paul International Airport (MN), USA, MSP', 1169: 'Minot (ND), USA, MOT', 1170: 'Minsk, International, Belarus, MSQ', 1171: 'Miri, Malaysia, MYY', 1172: 'Mirpur, Pakistan, QML', 1173: 'Missula (MT), USA, MSO', 1174: 'Mitchell (SD), USA, MHE', 1175: 'Miyako Jima (Ryuku Islands) - Hirara, Japan, MMY', 1176: 'Miyazaki, Japan, KMI', 1177: 'Mkambati, South Africa, MBM', 1178: 'Moanda, Gabon, MFF', 1179: 'Mobile (AL) - Pascagoula (MS), USA, MOB', 1180: 'Modesto (CA), USA, MOD', 1181: 'Moenjodaro, Pakistan, MJD', 1182: 'Mogadishu, Somalia, MGQ', 1183: 'Mokuti, Namibia, OKU', 1184: 'Moline/Quad Cities (IL), USA, MLI', 1185: 'Mombasa - Moi International, Kenya, MBA', 1186: 'Monastir, Tunisia, MIR', 1187: 'Moncton, Canada, YQM', 1188: 'Monroe (LA), USA, MLU', 1189: 'Monrovia - Metropolitan Area, Liberia, MLW', 1190: 'Monrovia - Roberts International, Liberia, ROB', 1191: 'Montego Bay - Sangster International, Jamaica, MBJ', 1192: 'Montenegro, Brazil, QGF', 1193: 'Monterey (CA), USA, MRY', 1194: 'Monterrey - Gen. Mariano Escobedo, Mexico, MTY', 1195: 'Monterrey - Aeropuerto Del Norte, Mexico, NTR', 1196: 'Montevideo - Carrasco International Airport, Uruguay, MVD', 1197: 'Montgomery (AL) - Montgomery Regional Airport, USA, MGM', 1198: 'Montpellier - Montpellier–Méditerranée Airport, France, MPL', 1199: 'Montreal, Canada, YMQ', 1200: 'Montreal - Dorval (Montréal-Trudeau), Canada, YUL', 1201: 'Montreal - Mirabel, Canada, YMX', 1202: 'Montrose/Tellruide (CO), USA, MTJ', 1203: 'Moorea, French Polynesia, MOZ', 1204: 'Moranbah, Australia, MOV', 1205: 'Moree, Australia, MRZ', 1206: 'Morelia, Mexico, MLM', 1207: 'Morgantown (WV), USA, MGW', 1208: 'Morioka, Hanamaki, Japan, HNA', 1209: 'Moroni - Prince Said Ibrahim, Comoros (Comores), HAH', 1210: 'Moruya, Australia, MYA', 1211: 'Moscow - Metropolitan Area, Russia, MOW', 1212: 'Moscow - Domodedovo, Russia, DME', 1213: 'Moscow - Sheremetyevo, Russia, SVO', 1214: 'Moscow - Vnukovo, Russia, VKO', 1215: 'Moses Lake (WA), USA, MWH', 1216: 'Mossel Bay, South Africa, MZY', 1217: 'Mostar, Bosnia and Herzegovina, OMO', 1218: 'Mosul, Iraq, OSM', 1219: 'Mouila, Gabon, MJL', 1220: 'Moundou, Chad, MQQ', 1221: 'Mount Cook, New Zealand, GTN', 1222: 'Mount Gambier, Australia, MGB', 1223: 'Mount Magnet, Australia, MMG', 1224: 'Mt. Isa, Australia, ISA', 1225: 'Mt. McKinley (AK), USA, MCL', 1226: 'Muenchen (Munich) - Franz Josef Strauss, Germany, MUC', 1227: 'Muenster/Osnabrueck, Germany, FMO', 1228: 'Mulhouse, France, MLH', 1229: 'Multan, Pakistan, MUX', 1230: 'Murcia, Spain, MJV', 1231: 'Murmansk, Russia, MMK', 1232: 'Mus, Turkey, MSR', 1233: 'Muscat - Seeb, Oman, MCT', 1234: 'Muscle Shoals (AL), USA, MSL', 1235: 'Muskegon (MI), USA, MKG', 1236: 'Muzaffarabad, Pakistan, MFG', 1237: 'Mvengue, Gabon, MVB', 1238: 'Mykonos, Greece, JMK', 1239: 'Myrtle Beach (SC) - Myrtle Beach AFB, USA, MYR', 1240: 'Myrtle Beach (SC) - Grand Strand Airport, USA, CRE', 1241: 'Mysore, India, MYQ', 1242: 'Mytilene (Lesbos), Greece, MJT', 1243: 'Mzamba, South Africa, MZF', 1244: 'Nadi, Fiji, NAN', 1245: 'Nagasaki, Japan, NGS', 1246: 'Nagoya - Komaki AFB, Japan, NGO', 1247: 'Nagpur, India, NAG', 1248: 'Nairobi, Kenya, NBO', 1249: 'Nakhichevan, Azerbaijan, NAJ', 1250: 'Nakhon Si Thammarat, Thailand, NST', 1251: 'Nancy, France, ENC', 1252: 'Nanisivik, Canada, YSR', 1253: 'Nanning, Guangxi, PR China, NNG', 1254: 'Nantes - Nantes Atlantique Airport, France, NTE', 1255: 'Nantucket (MA), USA, ACK', 1256: 'Naples - Naples Capodichino Airport, Italy, NAP', 1257: 'Naples (FL), USA, APF', 1258: 'Narrabri, Australia, NAA', 1259: 'Narrandera, Australia, NRA', 1260: 'Narsarsuaq, Greenland, UAK', 1261: 'Nashville (TN), USA, BNA', 1262: 'Nassau, Bahamas, NAS', 1263: 'Natal - Augusto Severo International Airport, Brazil, NAT', 1264: 'Nausori, Fiji/Suva, SUV', 1265: 'Nawab Shah, Pakistan, WNS', 1266: 'Naxos - Naxos Airport, Greece, JNX', 1267: "N'Djamena, Chad, NDJ", 1268: "N'Dola, Zambia, NLA", 1269: 'Nelson, New Zealand, NSN', 1270: 'Nelspruit, South Africa, NLP', 1271: 'Nelspruit - Kruger Mpumalanga International Airport, South Africa, MQP', 1272: 'Nevis, St. Kitts and Nevis, NEV', 1273: 'New Bern (NC), USA, EWN', 1274: 'New Haven (CT), USA, HVN', 1275: 'New Orleans, La, USA, MSY', 1276: 'Newquay, United Kingdom, NQY', 1277: 'New Valley - Kharga, Egypt, UVL', 1278: 'New York - John F. Kennedy (NY), USA, JFK', 1279: 'New York - LaGuardia (NY), USA, LGA', 1280: 'New York - Newark (NJ), USA, EWR', 1281: 'New York (NY), USA, NYC', 1282: 'Newburgh (NY), USA, SWF', 1283: 'Newcastle - Belmont, Australia, BEO', 1284: 'Newcastle - Williamtown, Australia, NTL', 1285: 'Newcastle, United Kingdom, NCL', 1286: 'Newcastle, South Africa, NCS', 1287: 'Newman, Australia, ZNE', 1288: 'Newport News/Williamsburg (VA), USA, PHF', 1289: "N'Gaoundere, Cameroon, NGE", 1290: 'Niagara Falls International, USA, IAG', 1291: 'Niamey, Niger, NIM', 1292: "Nice - Cote D'Azur Airport, France, NCE", 1293: 'Nicosia, Cyprus, NIC', 1294: 'Nikolaev, Ukraine, NLV', 1295: 'Niigata, Japan, KIJ', 1296: 'Nimes, France, FNI', 1297: 'Nis, Serbia, INI', 1298: 'Nizhny Novgorod - Strigino International Airport, Russia, GOJ', 1299: 'Nome (AK), USA, OME', 1300: 'Noosa, Australia, NSA', 1301: 'Norfolk Island, Australia, NLK', 1302: 'Norfolk/Virginia Beach (VA), USA, ORF', 1303: 'Norman Wells, Canada, YVQ', 1304: 'Norrkoeping, Sweden, NRK', 1305: 'North Bend (OR), USA, OTH', 1306: 'North Eleuthera, Bahamas, ELH', 1307: 'Norwich, United Kingdom, NWI', 1308: 'Nottingham - East Midlands, United Kingdom, EMA', 1309: 'Nouadhibou, Mauritania, NDB', 1310: 'Nouakchott, Mauritania, NKC', 1311: 'Noumea, New Caledonia, NOU', 1312: 'Novi Sad, Serbia, QND', 1313: 'Novosibirsk - Tolmachevo Airport, Russia, OVB', 1314: 'Nürnberg (Nuremberg), Germany, NUE', 1315: 'Nuevo Laredo, Mexico, NLD', 1316: "Nuku'alofa - Fua'Amotu International, Tonga, TBU", 1317: 'Oakland (CA), USA, OAK', 1318: 'Oaxaca - Xoxocotlan, Mexico, OAX', 1319: 'Odense, Denmark, ODE', 1320: 'Odessa, Ukraine, ODS', 1321: 'Oerebro, Sweden, ORB', 1322: 'Ohrid, Macedonia, OHD', 1323: 'Oita, Japan, OIT', 1324: 'Okayama, Japan, OKJ', 1325: 'Okinawa, Ryukyo Island - Naha, Japan, OKA', 1326: 'Oklahoma City (OK) - Will Rogers World, USA, OKC', 1327: 'Olbia, Italy, OLB', 1328: 'Olympic Dam, Australia, OLP', 1329: 'Omaha (NE), USA, OMA', 1330: 'Ondangwa, Namibia, OND', 1331: 'Ontario (CA), USA, ONT', 1332: 'Oran (Ouahran), Algeria, ORN', 1333: 'Orange, Australia, OAG', 1334: 'Orange County (Santa Ana) (CA), USA, SNA', 1335: 'Oranjemund, Namibia, OMD', 1336: 'Oranjestad - Reina Beatrix International, Aruba, AUA', 1337: 'Orkney - Kirkwall, United Kingdom, KOI', 1338: 'Orlando Metropolitan Area (FL), USA, ORL', 1339: 'Orlando - International Airport (FL), USA, MCO', 1340: 'Orpheus Island, Australia, ORS', 1341: 'Osaka, Metropolitan Area, Japan, OSA', 1342: 'Osaka - Itami, Japan, ITM', 1343: 'Osaka - Kansai International Airport, Japan, KIX', 1344: 'Oshkosh (WI), USA, OSH', 1345: 'Osijek, Croatia (Hrvatska), OSI', 1346: 'Oslo - Oslo Airport, Gardermoen, Norway, OSL', 1347: 'Oslo - Fornebu, Norway, FBU', 1348: 'Oslo - Sandefjord, Norway, TRF', 1349: 'Ottawa - Hull, Canada, YOW', 1350: 'Ouadda, Central African Republic, ODA', 1351: 'Ouarzazate, Morocco, OZZ', 1352: 'Oudtshoorn, South Africa, OUH', 1353: 'Ouagadougou, Burkina Faso, OUA', 1354: 'Oujda, Morocco, OUD', 1355: 'Oulu, Finland, OUL', 1356: 'Out Skerries (Shetland), United Kingdom, OUK', 1357: 'Oviedo, Spain, OVD', 1358: 'Owensboro (KY), USA, OWB', 1359: 'Oxnard (CA), USA, OXR', 1360: 'Oyem, Gabon/Loyautte, UVE', 1361: 'Paderborn/Lippstadt, Germany, PAD', 1362: 'Paducah (KY), USA, PAH', 1363: 'Page/Lake Powell (AZ), USA, PGA', 1364: 'Pago Pago, American Samoa, PPG', 1365: 'Pakersburg (WV) /Marietta (OH), USA, PKB', 1366: 'Palermo - Punta Raisi, Italy, PMO', 1367: 'Palma de Mallorca, Spain, PMI', 1368: 'Palmas, Brazil, PMW', 1369: 'Palmdale/Lancaster (CA), USA, PMD', 1370: 'Palmerston North, New Zealand, PMR', 1371: 'Palm Springs (CA), USA, PSP', 1372: 'Panama City - Tocumen International, Panama, PTY', 1373: 'Panama City (FL), USA, PFN', 1374: 'Panjgur, Pakistan, PJG', 1375: 'Pantelleria, Italy, PNL', 1376: 'Papeete - Faaa, French Polynesia (Tahiti), PPT', 1377: 'Paphos, Cyprus, PFO', 1378: 'Paraburdoo, Australia, PBO', 1379: 'Paramaribo - Zanderij International, Suriname, PBM', 1380: 'Paris, France, PAR', 1381: 'Paris - Charles de Gaulle, France, CDG', 1382: 'Paris - Le Bourget, France, LBG', 1383: 'Paris - Orly, France, ORY', 1384: 'Paro, Bhutan, PBH', 1385: 'Pasco (WA), USA, PSC', 1386: 'Pasni, Pakistan, PSI', 1387: 'Patna, India, PAT', 1388: 'Pattaya, Thailand, PYX', 1389: 'Pau, France, PUF', 1390: 'Pellston (MI), USA, PLN', 1391: 'Penang International, Malaysia, PEN', 1392: 'Pendelton (OR), USA, PDT', 1393: 'Pensacola (FL), USA, PNS', 1394: 'Peoria/Bloomington (IL), USA, PIA', 1395: 'Pereira, Colombia, PEI', 1396: 'Perpignan, France, PGF', 1397: 'Perth International, Australia, PER', 1398: 'Perugia, Italy, PEG', 1399: 'Pescara, Italy, PSR', 1400: 'Peshawar, Pakistan, PEW', 1401: 'Petersburg (AK), USA, PSG', 1402: 'Phalaborwa, South Africa, PHW', 1403: 'Philadelphia (PA) - International, USA, PHL', 1404: 'Phnom Penh - Pochentong, Cambodia, PNH', 1405: 'Phoenix (AZ) - Sky Harbor International, USA, PHX', 1406: 'Phuket, Thailand, HKT', 1407: 'Pierre (SD), USA, PIR', 1408: 'Pietermaritzburg, South Africa, PZB', 1409: 'Pietersburg, South Africa, PTG', 1410: 'Pilanesberg/Sun City, South Africa, NTY', 1411: 'Pisa - Galileo Galilei, Italy, PSA', 1412: 'Pittsburgh International Airport (PA), USA, PIT', 1413: 'Plattsburgh (NY), USA, PLB', 1414: 'Plettenberg Bay, South Africa, PBZ', 1415: 'Pocatello (ID), USA, PIH', 1416: 'Podgorica, Montenegro, TGD', 1417: 'Pohnpei, Micronesia, PNI', 1418: 'Pointe a Pitre, Guadeloupe, PTP', 1419: 'Pointe Noire, Congo (ROC), PNR', 1420: 'Poitiers - Biard, France, PIS', 1421: 'Ponce, Puerto Rico, PSE', 1422: 'Ponta Delgada, Portugal, PDL', 1423: 'Pori, Finland, POR', 1424: 'Port Angeles (WA), USA, CLM', 1425: 'Port au Prince, Haiti, PAP', 1426: 'Port Augusta, Australia, PUG', 1427: 'Port Elizabeth, South Africa, PLZ', 1428: 'Port Gentil, Gabon, POG', 1429: 'Port Harcourt, Nigeria, PHC', 1430: 'Port Hedland, Australia, PHE', 1431: 'Portland, Australia, PTJ', 1432: 'Portland (ME), USA, PWM', 1433: 'Portland International (OR), USA, PDX', 1434: 'Port Lincoln, Australia, PLO', 1435: 'Port Macquarie, Australia, PQQ', 1436: 'Port Menier, PQ, Canada, YPN', 1437: 'Port Moresby - Jackson Field, Papua New Guinea, POM', 1438: 'Porto, Portugal, OPO', 1439: 'Porto Alegre - Salgado Filho International Airport, Brazil, POA', 1440: 'Port of Spain - Piarco International, Trinidad and Tobago, POS', 1441: 'Port Said, Egypt, PSD', 1442: 'Porto Santo, Portugal, PXO', 1443: 'Porto Velho, Brazil, PVH', 1444: 'Port Vila, Vanuatu, VLI', 1445: 'Poughkeepsie (NY), USA, POU', 1446: 'Poznan, Lawica, Poland, POZ', 1447: 'Prague - Václav Havel Airport (formerly Ruzyne), Czech Republic, PRG', 1448: 'Praia - Nelson Mandela International Airport, Cape Verde, RAI', 1449: 'Presque Island (ME), USA, PQI', 1450: 'Pretoria - Wonderboom Apt., South Africa, PRY', 1451: 'Preveza/Lefkas, Greece, PVK', 1452: 'Prince George, Canada, YXS', 1453: 'Prince Rupert/Digby Island, Canada, YPR', 1454: 'Pristina, Serbia, PRN', 1455: 'Prosperpine, Australia, PPP', 1456: 'Providence (RI), USA, PVD', 1457: 'Prudhoe Bay (AK), USA, SCC', 1458: 'Puebla, Mexico, PBC', 1459: 'Pueblo (CO), USA, PUB', 1460: 'Puerto Escondido, Mexico, PXM', 1461: 'Puerto Ordaz, Venezuela, PZO', 1462: 'Puerto Plata, Dominican Republic, POP', 1463: 'Puerto Vallarta, Mexico, PVR', 1464: 'Pukatawagan, Canada, XPK', 1465: 'Pula, Croatia (Hrvatska), PUY', 1466: 'Pullman (WA), USA, PUW', 1467: 'Pune, India, Maharashtra, PNQ', 1468: 'Punta Arenas - Presidente Carlos Ibáñez del Campo, Chile, PUQ', 1469: 'Punta Cana - Punta Cana International, Dominican Republic, PUJ', 1470: 'Pu San (Busan) - Gimhae International Airport, South Korea, PUS', 1471: 'Pyongyang - Sunan International Airport, North Korea, FNJ', 1472: 'Quebec - Quebec International, Canada, YQB', 1473: 'Queenstown, Australia, UEE', 1474: 'Queenstown, New Zealand, ZQN', 1475: 'Quetta, Pakistan, UET', 1476: 'Qingdao, Shandong, PR China, TAO', 1477: 'Quimper, France, UIP', 1478: 'Quincy (IL), USA, UIN', 1479: 'Quito - Mariscal Sucre International Airport, Ecuador, UIO', 1480: 'Rabat - Rabat-Salé Airport, Morocco, RBA', 1481: 'Rahim Yar Khan - Shaikh Zayed International Airport, Pakistan, RYK', 1482: 'Raiatea, French Polynesia, RFP', 1483: 'Rainbow Lake, AB, Canada, YOP', 1484: 'Rajkot, India, RAJ', 1485: 'Raleigh/Durham (NC), USA, RDU', 1486: 'Ranchi, India, IXR', 1487: 'Rangiroa, French Polynesia, RGI', 1488: 'Rangoon (Yangon) - Mingaladon, Myanmar, RGN', 1489: 'Rapid City (SD), USA, RAP', 1490: 'Rarotonga, Cook Island, RAR', 1491: 'Ras al Khaymah (Ras al Khaimah), United Arab Emirates, RKT', 1492: 'Rawala Kot, Pakistan, RAZ', 1493: 'Rawalpindi, Pakistan, RWP', 1494: 'Reading (PA), USA, RDG', 1495: 'Recife - Guararapes-Gilberto Freyre International, Brazil, REC', 1496: 'Redding (CA), USA, RDD', 1497: 'Redmond (OR), USA, RDM', 1498: 'Reggio Calabria, Italy, REG', 1499: 'Regina, Canada, YQR', 1500: 'Reina Sofia, Teneriffa/Spain, TFS', 1501: 'Rennes, France, RNS', 1502: 'Reno (NV), USA, RNO', 1503: 'Resolute Bay, Canada, YRB', 1504: 'Reus, Spain, REU', 1505: 'Reykjavik - Metropolitan Area, Iceland, REK', 1506: 'Reykjavik - Keflavik International, Iceland, KEF', 1507: 'Rhinelander (WI), USA, RHI', 1508: 'Rhodos, Greece, RHO', 1509: 'Richards Bay, South Africa, RCB', 1510: 'Richmond (VA), USA, RIC', 1511: 'Riga, Latvia, RIX', 1512: 'Rijeka, Croatia (Hrvatska), RJK', 1513: 'Rimini, Italy, RMI', 1514: 'Rio Branco - Plácido de Castro International Airport, Brazil, RBR', 1515: 'Rio de Janeiro - Galeao, Brazil, GIG', 1516: 'Rio de Janeiro - Santos Dumont, Brazil, SDU', 1517: 'Rio de Janeiro, Brazil, RIO', 1518: 'Riyadh - King Khaled International, Saudi Arabia, RUH', 1519: 'Roanne, France, RNE', 1520: 'Roanoke (VA), USA, ROA', 1521: 'Roatan, Honduras, RTB', 1522: 'Rochester (MN), USA, RST', 1523: 'Rochester (NY), USA, ROC', 1524: 'Rock Sound, Bahamas, RSD', 1525: 'Rock Springs (WY), USA, RKS', 1526: 'Rockford (IL), USA, RFD', 1527: 'Rockhampton, Australia, ROK', 1528: 'Rockland (ME), USA, RKD', 1529: 'Rocky Mount - Wilson (NC), USA, RWI', 1530: 'Rodez, France, RDZ', 1531: 'Rodrigues Island, Mauritius, RRG', 1532: 'Roenne, Denmark, RNN', 1533: 'Rome, Italy, ROM', 1534: 'Rome - Ciampino, Italy, CIA', 1535: 'Rome - Fuimicino, Italy, FCO', 1536: 'Ronneby, Sweden, RNB', 1537: 'Rosario, Argentina, ROS', 1538: 'Rostov-on-Don - Rostov-on-Don Airport, Russia, RVI', 1539: 'Rostov-on-Don - Platov International Airport, Russia, ROV', 1540: 'Rotorua, New Zealand, ROT', 1541: 'Rotterdam, Netherlands, RTM', 1542: 'Rovaniemi, Finland, RVN', 1543: 'Rundu, Namibia, NDU', 1544: 'Ruse, Bulgaria, ROU', 1545: 'Saarbruecken, Germany, SCN', 1546: 'Sacramento (CA), USA, SMF', 1547: 'Sado Shima, Japan, SDS', 1548: 'Saginaw/Bay City/Midland (MI), USA, MBS', 1549: 'Saidu Sharif, Pakistan, SDT', 1550: 'Saigon (Ho Chi Minh City) - Tan Son Nhat International, Viet Nam, SGN', 1551: 'Saint Brieuc, France, SBK', 1552: 'Saint Denis - Roland Garros Airport, Reunion, RUN', 1553: 'Saint John, Canada, YSJ', 1554: 'Saipan, Northern Mariana Islands, SPN', 1555: 'Sal, Cape Verde, SID', 1556: 'Salalah, Oman, SLL', 1557: 'Salem (OR), USA, SLE', 1558: 'Salinas (CA), USA, SNS', 1559: 'Salinas, Ecuador, SNC', 1560: 'Salisbury, Zimbabwe, SAY', 1561: 'Salisbury (MD), USA, SBY', 1562: 'Saloniki, Greece, SKG', 1563: 'Salta, Gen Belgrano, Argentina, SLA', 1564: 'Salt Lake City (UT), USA, SLC', 1565: 'Salvador - Salvador International Airport, Brazil, SSA', 1566: 'Salzburg - W.A. Mozart, Austria, SZG', 1567: 'Samara - Kurumoch International Airport, Russia, KUF', 1568: 'Samarkand - Samarkand International Airport, Uzbekistan, SKD', 1569: 'Samos, Greece, SMI', 1570: 'Samsun, Turkey, SZF', 1571: 'San Andres, Colombia, ADZ', 1572: 'San Angelo (TX), USA, SJT', 1573: 'San Antonio (TX), USA, SAT', 1574: 'San Carlos de Bariloche, Argentina, BRC', 1575: 'San Diego - Lindberg Field International (CA), USA, SAN', 1576: 'San Francisco - International Airport, SA, USA, SFO', 1577: 'San Jose Cabo, Mexico, SJD', 1578: 'San Jose, Costa Rica, SJO', 1579: 'San Jose (CA), USA, SJC', 1580: 'San Juan - Luis Munoz Marin International Airport, Puerto Rico, SJU', 1581: 'San Luis Obisco (CA), USA, SBP', 1582: 'San Luis Potosi, Mexico, SLP', 1583: "San Pedro, Cote d'Ivoire, SPY", 1584: 'San Pedro Sula, Honduras, SAP', 1585: 'San Salvador, Bahamas, ZSA', 1586: 'San Salvador, El Salvador, SAL', 1587: 'San Sebastian, Spain, EAS', 1588: "Sanaa (Sana'a) - Sana'a International, Yemen, SAH", 1589: 'Sandspit, Canada, YZP', 1590: 'Santa Ana - John Wayne Airport (CA), USA, SNA', 1591: 'Santa Barbara (CA), USA, SBA', 1592: 'Santa Cruz de la Palma, Spain, SPC', 1593: 'Santa Cruz de la Sierra, Bolivia, SRZ', 1594: 'Santa Katarina - Mount Sinai, Egypt, SKV', 1595: 'Santa Maria, Portugal, SMA', 1596: 'Santa Maria (CA), USA, SMX', 1597: 'Santander, Spain, SDR', 1598: 'Santa Rosa (CA), USA, STS', 1599: 'Santa Rosa, Bolivia, SRB', 1600: 'Santa Rosa, Brazil, SRA', 1601: 'Santa Rosa, Argentina, RSA', 1602: 'Santa Rosa, Copan, Honduras, SDH', 1603: 'Santa Rosalia, Colombia, SSL', 1604: 'Santa Rosalia, Mexico, SRL', 1605: 'Santiago - Antonio Maceo Airport, Cuba, SCU', 1606: 'Santiago de Chile - Arturo Merino Benitez, Chile, SCL', 1607: 'Santiago de Compostela, Spain, SCQ', 1608: 'Santo, Vanuatu, SON', 1609: 'Santo Domingo, Dominican Republic, SDQ', 1610: 'Sao Luis - Marechal Cunha Machado International, Brazil, SLZ', 1611: 'Sao Paulo, Brazil, SAO', 1612: 'Sao Paulo - Congonhas, Brazil, CGH', 1613: 'Sao Paulo - Guarulhos, Brazil, GRU', 1614: 'Sao Paulo - Viracopos, Brazil, VCP', 1615: 'Sao Tome, Sao Tome & Principe, TMS', 1616: 'Sapporo, Hokkaido, Japan, SPK', 1617: 'Sapporo - Okadama, Hokkaido, Japan, OKD', 1618: 'Sapporo - New Chitose Airport, Japan, CTS', 1619: 'Sarajevo, Bosnia and Herzegovina, SJJ', 1620: 'Saransk - Saransk Airport, Russia, SKX', 1621: 'Sarasota/Bradenton (FL), USA, SRQ', 1622: 'Saskatoon, Canada, YXE', 1623: "Sassandra, Cote d'Ivoire, ZSS", 1624: 'Savannah (GA), USA, SAV', 1625: 'Savonlinna, Finland, SVL', 1626: 'Scarborough - Crown Point International, Trinidad and Tobago, TAB', 1627: 'Scone, Australia, NSO', 1628: 'Scottsdale (AZ), USA, SCF', 1629: 'Seattle/Tacoma (WA), USA, SEA', 1630: 'Sehba, Libya, SEB', 1631: 'Seinaejoki, Finland, SJY', 1632: 'Selibi Phikwe, Botswana, PKW', 1633: 'Sendai, Japan, SDJ', 1634: 'Seoul - Incheon International Airport, South Korea, ICN', 1635: 'Seoul - Kimpo, South Korea, SEL', 1636: 'Sevilla, Spain, SVQ', 1637: 'Sfax, Tunisia, SFA', 1638: 'Shamattawa, MB, Canada, ZTM', 1639: 'Shanghai - Hongqiao, China, SHA', 1640: 'Shanghai - Pu Dong, China, PVG', 1641: 'Shannon (Limerick), Ireland, SNN', 1642: 'Sharjah, United Arab Emirates, SHJ', 1643: 'Sharm El Sheikh, Egypt, SSH', 1644: 'Sheffield, City Airport, United Kingdom, SZD', 1645: 'Sheffield, Doncaster, Robin Hood International Airport, United Kingdom, DSA', 1646: 'Shenandoah Valley/Stauton (VA), USA, SHD', 1647: 'Shenyang, Liaoning, PR China, SHE', 1648: "Shenzhen - Shenzhen Bao'an International, Guangdong, PR China, SZX", 1649: 'Sheridan (WY), USA, SHR', 1650: 'Shreveport, La, USA, SHV', 1651: 'Shute Harbour, Australia, JHQ', 1652: 'Sibu, Malaysia, SBW', 1653: 'Sidney (MT), USA, SDY', 1654: 'Silistra, Bulgaria, SLS', 1655: 'Simferopol, Ukraine, SIP', 1656: 'Sindhri, Pakistan, MPD', 1657: 'Singapore - Changi, Singapore, SIN', 1658: 'Singapore - Paya Lebar, Singapore, QPG', 1659: 'Singapore - Seletar, Singapore, XSP', 1660: 'Singleton, Australia, SIX', 1661: 'Sioux City IA, USA, SUX', 1662: 'Sioux Falls (SD), USA, FSD', 1663: 'Sishen, South Africa, SIS', 1664: 'Sitka (AK), USA, SIT', 1665: 'Sivas, Turkey, VAS', 1666: 'Siwa, Egypt, SEW', 1667: 'Skagway (AK), USA, SGY', 1668: 'Skardu, Pakistan, KDU', 1669: 'Skiathos, Greece, JSI', 1670: 'Skopje, Macedonia, SKP', 1671: 'Skrydstrup, Denmark, SKS', 1672: 'Skukuza, South Africa, SZK', 1673: 'Sligo, Ireland, SXL', 1674: 'Smithers, Canada, YYD', 1675: 'Sodankylae, Finland, SOT', 1676: 'Soenderborg, Denmark, SGD', 1677: 'Soendre Stroemfjord, Greenland, SFJ', 1678: 'Sofia - Vrazhdebna, Bulgaria, SOF', 1679: 'Sogndal, Norway, SOG', 1680: 'Southampton - Eastleigh, United Kingdom, SOU', 1681: 'South Bend (IN), USA, SBN', 1682: 'South Indian Lake, MB, Canada, XSI', 1683: 'South Molle Island, Australia, SOI', 1684: 'Southend (London), United Kingdom, SEN', 1685: 'Split, Croatia (Hrvatska), SPU', 1686: 'Spokane (WA), USA, GEG', 1687: 'Springbok, South Africa, SBU', 1688: 'Springfield (IL), USA, SPI', 1689: 'Springfield (MO), USA, SGF', 1690: 'Srinagar, India, SXR', 1691: 'St. Augustin, PQ, Canada, YIF', 1692: 'St. Croix, Virgin Islands (U.S.), STX', 1693: 'St. Etienne, France, EBU', 1694: 'St. George (UT), USA, SGU', 1695: "St. John's, Canada, YYT", 1696: 'St. Kitts, St. Kitts and Nevis, SKB', 1697: 'St. Louis (MO) Lambert–St. Louis International Airport, USA, STL', 1698: 'St. Lucia Hewanorra, Saint Lucia, UVF', 1699: 'St. Lucia Vigle, Saint Lucia, SLU', 1700: 'St. Marteen, Netherlands Antilles, SXM', 1701: 'St. Martin, St. Martin (Guadeloupe), SFG', 1702: 'St. Petersburg (Leningrad) - Pulkovo, Russia, LED', 1703: 'St. Pierre, NF, Canada, FSP', 1704: 'St. Thomas, Virgin Islands (U.S.), STT', 1705: 'St. Vincent, Saint Vincent and the Grenadines, SVD', 1706: 'Stansted (London), United Kingdom, STN', 1707: 'State College/Belefonte (PA), USA, SCE', 1708: 'Stavanger, Norway, SVG', 1709: 'Steamboat Springs (CO), USA, HDN', 1710: 'Stettin, Poland, SZZ', 1711: 'Stockholm Metropolitan Area, Sweden, STO', 1712: 'Stockholm - Arlanda, Sweden, ARN', 1713: 'Stockholm - Bromma, Sweden, BMA', 1714: 'Stockton (CA), USA, SCK', 1715: 'Stornway, United Kingdom, SYY', 1716: 'Strasbourg - Strasbourg Airport, France, SXB', 1717: 'Streaky Bay, Australia, KBY', 1718: 'Stuttgart - Echterdingen, Germany, STR', 1719: 'Sui, Pakistan, SUL', 1720: 'Sukkur, Pakistan, SKZ', 1721: 'Sumburgh (Shetland), United Kingdom, LSI', 1722: 'Sun Valley (ID), USA, SUN', 1723: 'Sundsvall, Sweden, SDL', 1724: 'Sunshine Coast, Australia, MCY', 1725: 'Surabaya - Juanda, Indonesia, SUB', 1726: 'Surat, India, STV', 1727: 'Suva - Nausori Airport (Luvuluvu), Fiji, SUV', 1728: 'Swakopmund, Namibia, SWP', 1729: 'Sydney - Sydney Airport, Australia, SYD', 1730: 'Sylhet, Bangladesh, ZYL', 1731: 'Syracuse (NY), USA, SYR', 1732: 'Tabuk, Saudi Arabia, TUU', 1733: 'Taif, Saudi Arabia, TIF', 1734: 'Taipei - Chiang Kai Shek, Taiwan, TPE', 1735: 'Taipei - Sung Shan, Taiwan, TAY', 1736: 'Taiyuan, Shanxi, PR China, TYN', 1737: 'Takamatsu, Japan, TAK', 1738: 'Talkeetna (AK), USA, TKA', 1739: 'Tallahassee (FL), USA, TLH', 1740: 'Tallinn - Pirita Harbour, Estonia, QUF', 1741: 'Tallinn - Ulemiste, Estonia, TLL', 1742: 'Tampa - International (FL), USA, TPA', 1743: 'Tampere, Finland, TMP', 1744: 'Tampico - Gen. F. Javier Mina, Mexico, TAM', 1745: 'Tamworth, Australia, TMW', 1746: 'Tangier - Boukhalef, Morocco, TNG', 1747: 'Taree, Australia, TRO', 1748: 'Targovishte, Bulgaria, TGV', 1749: 'Tashkent - International, Uzbekistan, TAS', 1750: 'Tawau, Malaysia, TWU', 1751: 'Tbilisi - Novo Alexeyevka, Georgia, TBS', 1752: 'Te Anau, New Zealand, TEU', 1753: 'Teesside, Durham Tees Valley, United Kingdom, MME', 1754: 'Tegucigalpa, Honduras, TGU', 1755: 'Tehran (Teheran) - Mehrabad, Iran, THR', 1756: 'Tekirdag - Corlu, Turkey, TEQ', 1757: 'Tel Aviv - Ben Gurion International, Israel, TLV', 1758: 'Telluride (CO), USA, TEX', 1759: 'Temora, Australia, TEM', 1760: 'Tenerife, Spain, TCI', 1761: 'Tenerife - Sur Reina Sofia, Spain, TFS', 1762: 'Tenerife - Norte Los Rodeos, Spain, TFN', 1763: 'Tennant Creek, Australia, TCA', 1764: 'Terceira, Portugal, TER', 1765: 'Teresina, Brazil, THE', 1766: 'Termez (Termes), Uzbekistan, TMZ', 1767: 'Terrace, Canada, YXT', 1768: 'Terre Haute (IN), USA, HUF', 1769: 'Texarkana (AR), USA, TXK', 1770: "Thaba'Nchu, South Africa, TCU", 1771: 'The Pas, Canada, YQD', 1772: 'Thessaloniki - Makedonia Apt., Greece, SKG', 1773: 'Thief River Falls (MN), USA, TVF', 1774: 'Thira, Greece, JTR', 1775: 'Thiruvananthapuram, India, TRV', 1776: 'Thisted, Denmark, TED', 1777: 'Thompson, Canada, YTH', 1778: 'Thorne Bay (AK), USA, KTB', 1779: 'Thunder Bay, Canada, YQT', 1780: 'Thursday Island, Australia, TIS', 1781: 'Tianjin, China, TSN', 1782: 'Tijuana - Rodriguez, Mexico, TIJ', 1783: 'Tioman, Indonesia, TOD', 1784: 'Tirana - Rinas, Albania, TIA', 1785: 'Tiruchirapally, India, TRZ', 1786: 'Tivat, Montenegro, TIV', 1787: 'Tobago, Trinidad and Tobago, TAB', 1788: 'Tokushima, Japan, TKS', 1789: 'Tokyo, Japan, TYO', 1790: 'Tokyo - Haneda, Japan, HND', 1791: 'Tokyo - Narita, Japan, NRT', 1792: 'Toledo (OH), USA, TOL', 1793: 'Tom Price, Australia, TPR', 1794: 'Toowoomba, Australia, TWB', 1795: 'Toronto - Billy Bishop Toronto City Airport, Canada, YTZ', 1796: 'Toronto - Toronto Pearson International Airport, Canada, YYZ', 1797: 'Toronto, Canada, YTO', 1798: 'Tortola, British Virgin Islands, TOV', 1799: 'Touho, New Caledonia, TOU', 1800: 'Toulouse - Blagnac Airport, France, TLS', 1801: 'Townsville, Australia, TSV', 1802: 'Toyama, Japan, TOY', 1803: 'Trabzon, Turkey, TZX', 1804: 'Trapani, Italy, TPS', 1805: 'Traverse City (MI), USA, TVC', 1806: 'Treasure Cay, Bahamas, TCB', 1807: 'Trenton/Princeton (NJ), USA, TTN', 1808: 'Treviso, Italy, TSF', 1809: 'Tri-Cities Regional (TN) /VA, USA, TRI', 1810: 'Trieste, Italy, TRS', 1811: 'Tripoli - Tripoli International, Libya, TIP', 1812: 'Tromsoe, Norway, TOS', 1813: 'Trondheim, Norway, TRD', 1814: 'Tsumeb, Namibia, TSB', 1815: 'Tucson (AZ), USA, TUS', 1816: 'Tulepo (MS), USA, TUP', 1817: 'Tulsa (OK), USA, TUL', 1818: 'Tunis - Carthage, Tunisia, TUN', 1819: 'Turbat, Pakistan, TUK', 1820: 'Turin, Italy, TRN', 1821: 'Turku, Finland, TKU', 1822: 'Tuscaloosa (AL), USA, TCL', 1823: 'Tuxtla Gutierrez, Mexico, TGZ', 1824: 'Twin Falls (ID), USA, TWF', 1825: 'Tyler (TX), USA, TYR', 1826: 'Ua Huka, French Polynesia, UAH', 1827: 'Ua Pou, French Polynesia, UAP', 1828: 'Ube, Japan, UBJ', 1829: 'Uberaba, Brazil, UBA', 1830: 'Uberlandia - Eduardo Gomes Airport, Brazil, UDI', 1831: 'Ubon Ratchathani - Muang Ubon Airport, Thailand, UBP', 1832: 'Udaipur - Dabok Airport, India, UDR', 1833: 'Uden - Volkel Airport, Netherlands, UDE', 1834: 'Udon Thani, Thailand, UTH', 1835: 'Ufa, Russia, UFA', 1836: 'Uherske Hradiste, Czech Republic, UHE', 1837: 'Uige, Angola, UGO', 1838: 'Ujung Pandang - Hasanudin Airport, Indonesia, UPG', 1839: 'Ukhta, Russia, UCT', 1840: 'Ukiah (CA), USA, UKI', 1841: 'Ulaanbaatar - Buyant Uhaa Airport, Mongolia, ULN', 1842: 'Ulan-Ude, Russia, UUD', 1843: 'Ulanhot, PR China, HLH', 1844: 'Ulei, Vanuatu, ULB', 1845: 'Ulsan, South Korea, USN', 1846: 'Ulundi, South Africa, ULD', 1847: 'Umea, Sweden, UME', 1848: 'Umiujaq, Canada, YUD', 1849: 'Umtata, South Africa, UTT', 1850: 'Unalakleet (AK), USA, UNK', 1851: 'Union Island, Saint Vincent and the Grenadines, UNI', 1852: 'Unst (Shetland Island) - Baltasound Airport, United Kingdom, UNT', 1853: 'Upala, Costa Rica, UPL', 1854: 'Upernavik - Upernavik Heliport, Greenland, JUV', 1855: 'Upington, South Africa, UTN', 1856: 'Upolu Point (HI), USA, UPP', 1857: 'Uranium City, Canada, YBE', 1858: 'Urgench, Uzbekistan, UGC', 1859: 'Uriman, Venezuela, URM', 1860: 'Urmiehm (Orumieh), Iran, OMH', 1861: 'Uruapan, Mexico, UPN', 1862: 'Urubupunga - Ernesto Pochler Airport, Brazil, URB', 1863: 'Uruguaiana - Ruben Berta Airport, Brazil, URG', 1864: 'Urumqi, Xinjiang, PR China, URC', 1865: 'Uruzgan, Afghanistan, URZ', 1866: 'Ushuaia - Islas Malvinas Airport, Argentina, USH', 1867: 'Utapao (Pattaya), Thailand, UTP', 1868: 'Utica (NY) - Oneida County Airport, USA, UCA', 1869: 'Utila, Honduras, UII', 1870: 'Uummannaq, Greenland, UMD', 1871: 'Uzhgorod, Ukraine, UDJ', 1872: 'Vaasa, Finland, VAA', 1873: 'Vaexjoe, Sweden, VXO', 1874: 'Vail (CO), USA, EGE', 1875: "Val d'Or, Canada, YVO", 1876: 'Valdez (AK), USA, VDZ', 1877: 'Valdosta (GA), USA, VLD', 1878: 'Valencia, Spain, VLC', 1879: 'Valencia, Venezuela, VLN', 1880: 'Valladolid, Spain, VLL', 1881: 'Valparaiso, Chile, VAP', 1882: 'Valverde, Spain, VDE', 1883: 'Van - Ferit Melen, Turkey, VAN', 1884: 'Vancouver - Vancouver International, Canada, YVR', 1885: 'Varadero, Cuba, VRA', 1886: 'Varanasi, India, VNS', 1887: 'Varkaus, Finland, VRK', 1888: 'Varna, Bulgaria, VAR', 1889: 'Vasteras, Sweden, VST', 1890: 'Velikiye Luki (Welikije Luki), Russia, VLU', 1891: 'Venice - Marco Polo, Italy, VCE', 1892: 'Veracruz, Mexico, VER', 1893: 'Vernal (UT), USA, VEL', 1894: 'Vero Beach/Ft. Pierce (FL), USA, VRB', 1895: 'Verona (Brescia) Montichiari, Italy, VBS', 1896: 'Verona, Italy, VRN', 1897: 'Victoria, Canada, YYJ', 1898: 'Victoria Falls, Zimbabwe, VFA', 1899: 'Vidin, Bulgaria, VID', 1900: 'Vientiane - Wattay, Lao PDR, VTE', 1901: 'Vigo, Spain, VGO', 1902: 'Villahermosa, Mexico, VSA', 1903: 'Vilnius, Lithuania, VNO', 1904: 'Virgin Gorda, Virgin Islands (British), VIJ', 1905: 'Visalia (CA), USA, VIS', 1906: 'Visby, Sweden, VBY', 1907: 'Vitoria, Spain, VIT', 1908: 'Vitoria - Eurico de Aguiar Salles Airport, Brazil, VIX', 1909: 'Vryheid, South Africa, VYD', 1910: 'Wabush, Canada, YWK', 1911: 'Waco (TX), USA, ACT', 1912: 'Wagga, Australia, WGA', 1913: 'Walla Walla (WA), USA, ALW', 1914: 'Wallis, Wallis and Futuna Islands, WLS', 1915: 'Walvis Bay, South Africa, WVB', 1916: 'Warrnambool, Australia, WMB', 1917: 'Warsaw - Frédéric Chopin, Poland, WAW', 1918: 'Washington DC - Baltimore Washington International, USA, BWI', 1919: 'Washington DC - Dulles International, USA, IAD', 1920: 'Washington DC - Ronald Reagan National, USA, DCA', 1921: 'Washington DC, USA, WAS', 1922: 'Waterloo IA, USA, ALO', 1923: 'Watertown (SD), USA, ATY', 1924: 'Wausau/Stevens Point (WI), USA, CWA', 1925: 'Weipa, Australia, WEI', 1926: 'Welkom, South Africa, WEL', 1927: 'Wellington, New Zealand, WLG', 1928: 'Wenatchee (WA), USA, EAT', 1929: 'West Palm Beach (FL), USA, PBI', 1930: 'West Yellowstone (MT), USA, WYS', 1931: 'Westerland, Sylt Airport, Germany, GWT', 1932: 'Whakatane, New Zealand, WHK', 1933: 'Whale Cove, NT, Canada, YXN', 1934: 'Whangarei, New Zealand, WRE', 1935: 'White Plains (NY), USA, HPN', 1936: 'Whitehorse, Canada, YXY', 1937: 'Whitsunday Resort, Australia, HAP', 1938: 'Whyalla, Australia, WYA', 1939: 'Wichita Falls (TX), USA, SPS', 1940: 'Wichita (KS), USA, ICT', 1941: 'Wick, United Kingdom, WIC', 1942: 'Wickham, Australia, WHM', 1943: 'Wien (Vienna) - Vienna International, Austria, VIE', 1944: 'Wiesbaden, Air Base, Germany, WIE', 1945: 'Wilkes Barre/Scranton (PA), USA, AVP', 1946: 'Williamsport (PA), USA, IPT', 1947: 'Williston (ND), USA, ISL', 1948: 'Wilmington (NC), USA, ILM', 1949: 'Wilna (Vilnius), Lithuania, VNO', 1950: 'Wiluna, Australia, WUN', 1951: 'Windhoek - Eros, Namibia, ERS', 1952: 'Windhoek - Hosea Kutako International, Namibia, WDH', 1953: 'Windsor Ontario, Canada, YQG', 1954: 'Winnipeg International, Canada, YWG', 1955: 'Wolf Point (MT), USA, OLF', 1956: 'Wollongong, Australia, WOL', 1957: 'Woomera, Australia, UMR', 1958: 'Worcester (MA), USA, ORH', 1959: 'Worland (WY), USA, WRL', 1960: 'Wrangell (AK), USA, WRG', 1961: 'Wuhan, Hubei, PR China, WUH', 1962: 'Wyndham, Australia, WYN', 1963: 'Xiamen, Fujian, PR China, XMN', 1964: "Xi'an - Xianyang, Shaanxi, PR China, XIY", 1965: 'Yakima (WA), USA, YKM', 1966: 'Yakutat (AK), USA, YAK', 1967: 'Yakutsk, Russia, YKS', 1968: 'Yamagata, Junmachi, Japan, GAJ', 1969: "Yamoussoukro, Côte d'Ivoire, ASK", 1970: 'Yanbu, Saudi Arabia, YNB', 1971: 'Yangon (Rangoon) - Mingaladon, Myanmar, RGN', 1972: 'Yaounde, Cameroon, YAO', 1973: 'Yellowknife, Canada, YZF', 1974: 'Yekaterinburg - Koltsovo Airport, Russia, SVX', 1975: 'Yichang, Hubei, PR China, YIH', 1976: 'Yokohama, Japan, YOK', 1977: 'Yuma (AZ), USA, YUM', 1978: 'Zacatecas, Mexico, ZCL', 1979: 'Zadar, Croatia (Hrvatska), ZAD', 1980: 'Zagreb - Zagreb Airport Pleso, Croatia (Hrvatska), ZAG', 1981: 'Zakynthos, Greece, ZTH', 1982: 'Zaragoza, Spain, ZAZ', 1983: 'Zhob, Pakistan, PZH', 1984: 'Zinder, Niger, ZND', 1985: 'Zouerate, Mauritania, OUZ', 1986: 'Zurich (Zürich) - Kloten, Switzerland, ZRH'};

function search(keyword) {

let res = [];

keyword.toLowerCase().split(" ").forEach(i => {

if (tokens.hasOwnProperty(i)) {

tokens[i].forEach(j => {

if (!res.includes(fullRep[j])) {

res.push(fullRep[j]);

}

});

}

});

return res;

}

document.addEventListener('DOMContentLoaded', (event) => {

function scrollFunction() {

const navbar = document.querySelector('.navbar');

if (window.pageYOffset > 20) {

navbar.classList.add('scrolled');

} else {

navbar.classList.remove('scrolled');

}

}

window.onscroll = function() {

scrollFunction();

};

fetchWeatherData();

let slides = document.querySelectorAll('.background-slide');

let currentSlide = 0;

let slideInterval = setInterval(nextSlide, 7000);

function nextSlide() {

slides[currentSlide].classList.remove('active');

currentSlide = (currentSlide + 1) % slides.length;

slides[currentSlide].classList.add('active');

}

const highlightsLeftButton = document.getElementById('highlights-scroll-left');

const highlightsRightButton = document.getElementById('highlights-scroll-right');

const dealsLeftButton = document.getElementById('deals-scroll-left');

const dealsRightButton = document.getElementById('deals-scroll-right');

highlightsLeftButton.onclick = function() {

document.getElementById('highlights-carousel').scrollLeft -= 250;

};

highlightsRightButton.onclick = function() {

document.getElementById('highlights-carousel').scrollLeft += 250;

};

dealsLeftButton.onclick = function() {

document.getElementById('deals-carousel').scrollLeft -= 250;

};

dealsRightButton.onclick = function() {

document.getElementById('deals-carousel').scrollLeft += 250;

};

const activeTabButton = document.querySelector(".tab-button.active");

if (activeTabButton) {

activeTabButton.click();

}

document.getElementById('oneway').addEventListener('change', function() {

document.getElementById('returnDate').disabled = this.checked;

});

document.getElementById('return').addEventListener('change', function() {

document.getElementById('returnDate').disabled = !this.checked;

});

const fromInput = document.getElementById('from');

const toInput = document.getElementById('to');

const departDateInput = document.getElementById('departDate');

const returnDateInput = document.getElementById('returnDate');

const searchResultsDiv = document.getElementById('searchResults');

const toSearchResultsDiv = document.getElementById('toSearchResults');

const flightSearchForm = document.querySelector('.tab-content#tab-Flight form');

const today = new Date().toISOString().split('T')[0];

departDateInput.setAttribute('min', today);

function displaySearchResults(results, inputElement, resultsDiv) {

if (!resultsDiv) {

return;

}

resultsDiv.innerHTML = '';

results.forEach(result => {

const div = document.createElement('div');

div.classList.add('result-item');

div.textContent = result;

div.onclick = function() {

inputElement.value = this.textContent;

resultsDiv.style.display = 'none';

};

resultsDiv.appendChild(div);

});

resultsDiv.style.display = 'block';

}

fromInput.addEventListener('input', function() {

const searchQuery = this.value;

if (searchQuery.length > 0) {

const results = search(searchQuery);

displaySearchResults(results, fromInput, searchResultsDiv);

} else {

searchResultsDiv.style.display = 'none';

}

});

toInput.addEventListener('input', function() {

const searchQuery = this.value;

if (searchQuery.length > 0) {

const results = search(searchQuery);

displaySearchResults(results, toInput, toSearchResultsDiv);

} else {

toSearchResultsDiv.style.display = 'none';

}

});

window.addEventListener('click', function(event) {

if (event.target !== fromInput && event.target !== toInput &&

event.target.closest('.search-results') === null) {

searchResultsDiv.style.display = 'none';

toSearchResultsDiv.style.display = 'none';

}

});

departDateInput.addEventListener('change', function() {

returnDateInput.min = this.value;

if (returnDateInput.value && returnDateInput.value < this.value) {

returnDateInput.value = '';

}

});

flightSearchForm.addEventListener('submit', function(e) {

e.preventDefault();

const fromAirport = fromInput.value;

const toAirport = toInput.value;

const fromIATA = fromAirport.split(", ").pop();

const toIATA = toAirport.split(", ").pop();

const departDate = departDateInput.value;

const returnDate = returnDateInput.value;

let selectedValue = document.querySelector('input[name="tripType"]:checked').value;

let url = "";

if (selectedValue === "one-way") {

url = "https://booking.kayak.com/flights/" + fromIATA + "-" + toIATA + "/" + departDate + "?sort=bestflight\_a";

} else {

url = "https://booking.kayak.com/flights/" + fromIATA + "-" + toIATA + "/" + departDate + "/" + returnDate + "?sort=bestflight\_a";

}

window.open(url, '\_blank');

});

const locationInput = document.getElementById('location');

const checkInDateInput = document.getElementById('checkInDate');

const checkOutDateInput = document.getElementById('checkOutDate');

const numberOfRoomsInput = document.getElementById('numberOfRooms');

const numberOfAdultsInput = document.getElementById('numberOfAdults');

const numberOfKidsInput = document.getElementById('numberOfKids');

const increment = (id) => {

const input = document.getElementById(id);

input.value = parseInt(input.value) + 1;

if (id === "numberOfRooms") {

numberOfAdultsInput.min = input.value;

if (parseInt(numberOfAdultsInput.value) < parseInt(input.value)) {

numberOfAdultsInput.value = input.value;

}

}

};

const decrement = (id) => {

const input = document.getElementById(id);

if (input.value > input.min) {

input.value = parseInt(input.value) - 1;

}

};

document.getElementById('incrementRooms').addEventListener('click', () => increment('numberOfRooms'));

document.getElementById('incrementAdults').addEventListener('click', () => increment('numberOfAdults'));

document.getElementById('incrementKids').addEventListener('click', () => increment('numberOfKids'));

document.getElementById('decrementRooms').addEventListener('click', () => decrement('numberOfRooms'));

document.getElementById('decrementAdults').addEventListener('click', () => decrement('numberOfAdults'));

document.getElementById('decrementKids').addEventListener('click', () => decrement('numberOfKids'));

numberOfRoomsInput.addEventListener('change', () => {

numberOfAdultsInput.min = numberOfRoomsInput.value;

if (parseInt(numberOfAdultsInput.value) < parseInt(numberOfRoomsInput.value)) {

numberOfAdultsInput.value = numberOfRoomsInput.value;

}

});

numberOfAdultsInput.addEventListener('change', () => {

numberOfAdultsInput.min = numberOfRoomsInput.value;

if (parseInt(numberOfAdultsInput.value) < parseInt(numberOfRoomsInput.value)) {

numberOfAdultsInput.value = numberOfRoomsInput.value;

}

});

numberOfRoomsInput.min = '1';

numberOfAdultsInput.min = numberOfRoomsInput.value;

numberOfKidsInput.min = '0';

checkInDateInput.addEventListener('change', function() {

checkOutDateInput.min = this.value;

if (checkOutDateInput.value < this.value) {

checkOutDateInput.value = this.value;

}

});

const hotelSearchForm = document.querySelector('.tab-content#tab-Hotel form');

hotelSearchForm.addEventListener('submit', function(e) {

e.preventDefault();

const location = locationInput.value;

const checkInDate = checkInDateInput.value;

const checkOutDate = checkOutDateInput.value;

const numberOfAdults = numberOfAdultsInput.value;

const numberOfRooms = numberOfRoomsInput.value;

const numberOfKids = numberOfKidsInput.value;

const url = `https://www.booking.com/searchresults.html?ss=${location}&lang=en-us&checkin=${checkInDate}&checkout=${checkOutDate}&group\_adults=${numberOfAdults}&no\_rooms=${numberOfRooms}&group\_children=${numberOfKids}`;

window.open(url, '\_blank');

});

getParkingData();

const feedbackButton = document.getElementById("feedbackButton");

const feedbackModal = new bootstrap.Modal(document.getElementById("feedbackModal"));

feedbackButton.addEventListener("click", function() {

feedbackModal.show();

});

const ratingStars = document.querySelectorAll('.rating-star');

ratingStars.forEach(star => {

star.addEventListener('mouseover', function() {

ratingStars.forEach(s => s.classList.remove('active'));

const hoveredRating = this.getAttribute('data-rating');

for (let i = 0; i < hoveredRating; i++) {

ratingStars[i].classList.add('active');

}

});

star.addEventListener('mouseout', function() {

ratingStars.forEach(s => s.classList.remove('active'));

const selectedRating = document.getElementById('rating').value;

for (let i = 0; i < selectedRating; i++) {

ratingStars[i].classList.add('active');

}

});

star.addEventListener('click', function() {

ratingStars.forEach(s => s.classList.remove('active'));

const selectedRating = this.getAttribute('data-rating');

for (let i = 0; i < selectedRating; i++) {

ratingStars[i].classList.add('active');

}

document.getElementById('rating').value = selectedRating;

});

});

document.getElementById('parkingForm').addEventListener('submit', function(event) {

event.preventDefault();

filterParkingData();

});

var now = formatDateTime1(new Date());

document.getElementById('fromDate').setAttribute('min', now);

document.getElementById('toDate').setAttribute('min', now);

document.getElementById('fromDate').addEventListener('change', function() {

document.getElementById('toDate').setAttribute('min', this.value);

});

subscribeToParkingChanges();

const feedbackForm = document.getElementById("feedbackForm");

feedbackForm.addEventListener("submit", function(event) {

event.preventDefault();

const rating = document.getElementById("rating").value;

const comment = document.getElementById("comment").value;

const postData = {

"rating": rating,

"comment": comment

};

var stars = document.querySelectorAll('.rating-star');

stars.forEach(function(star) {

star.classList.remove('active');

});

document.getElementById("comment").value = "";

fetch('/sendFeedback', {

method: 'POST',

headers: {

'Content-Type': 'application/json'

},

body: JSON.stringify(postData)

}).then()

.catch(error => {

if (!navigator.onLine) {

console.error('No internet connection');

} else {

console.error('Fetch error:', error);

}

});

feedbackModal.hide();

showFloatingMessage("Feedback sent");

});

document.querySelector('.search-form').addEventListener('submit', function(event) {

event.preventDefault();

const searchTerm = document.querySelector('.search-input').value;

const flightType = document.querySelector('.icon-button.active') ? 'Departure' : 'Arrival';

window.location.href = `flightInfo?search=${searchTerm}&type=${flightType}`;

});

document.querySelectorAll('.icon-button').forEach(button => {

button.addEventListener('click', function() {

document.querySelectorAll('.icon-button').forEach(btn => btn.classList.remove('active'));

this.classList.add('active');

});

});

});

function showFloatingMessage(message) {

var messageBox = document.getElementById('floatingMessageBox');

messageBox.innerHTML = message; // Set the dynamic message content

messageBox.style.display = 'block'; // Show the message box

setTimeout(function() {

messageBox.style.display = 'none';

}, 3000);

}

$('.search-input').focus(function() {

$(this).parent().addClass('focus');

}).blur(function() {

$(this).parent().removeClass('focus');

})

function openTab(evt, tabName) {

var i, tabcontent, tabbuttons, tabIndicator;

tabcontent = document.getElementsByClassName("tab-content");

for (i = 0; i < tabcontent.length; i++) {

tabcontent[i].style.display = "none";

}

tabbuttons = document.getElementsByClassName("tab-button");

for (i = 0; i < tabbuttons.length; i++) {

tabbuttons[i].className = tabbuttons[i].className.replace(" active", "");

}

document.getElementById(tabName).style.display = "block";

evt.currentTarget.className += " active";

tabIndicator = document.querySelector(".tab-indicator");

const activeButton = evt.currentTarget;

const buttonsContainer = document.querySelector(".tab-buttons");

const buttons = Array.from(buttonsContainer.getElementsByClassName("tab-button"));

const activeIndex = buttons.indexOf(activeButton);

tabIndicator.style.left = `${evt.currentTarget.offsetLeft}px`;

const buttonWidth = evt.currentTarget.offsetWidth;

tabIndicator.style.width = `${buttonWidth}px`;

}

const apiUrl = 'https://api.openweathermap.org/data/2.5/weather?lat=33.89&lon=35.50&appid=aea6761270f9534d9bf8a1c1cf908d22&units=metric';

const fetchWeatherData = async () => {

try {

const response = await fetch(apiUrl);

const data = await response.json();

displayWeatherInfo(data);

} catch (error) {

console.error('Error fetching weather data:', error);

}

};

const displayWeatherInfo = (weatherData) => {

const weatherContainer = document.getElementById('weather-container');

const {

name,

weather,

main,

wind

} = weatherData;

const iconUrl = `https://openweathermap.org/img/wn/${weather[0].icon}.png`;

weatherContainer.innerHTML = `

<div class="weather-widget">

<h2>${name}</h2>

<p class="temperature">${Math.round(main.temp)}&deg;C</p>

<img src="${iconUrl}" alt="Weather Icon" class="weather-icon">

<p class="weather-description">${weather[0].description}</p>

<ul class="additional-info">

<li>Humidity: ${main.humidity}%</li>

<li>Wind: ${wind.speed} m/s</li>

</ul>

</div>

`;

};

const exchangeRates = {

"USD": 1,

"AED": 3.6725,

"AFN": 70.2379,

"ALL": 93.9796,

"AMD": 403.0081,

"ANG": 1.7900,

"AOA": 839.0714,

"ARS": 361.0300,

"AUD": 1.5047,

"AWG": 1.7900,

"AZN": 1.7010,

"BAM": 1.7979,

"BBD": 2.0000,

"BDT": 110.0711,

"BGN": 1.7980,

"BHD": 0.3760,

"BIF": 2838.4731,

"BMD": 1.0000,

"BND": 1.3356,

"BOB": 6.8927,

"BRL": 4.9226,

"BSD": 1.0000,

"BTN": 83.2956,

"BWP": 13.6087,

"BYN": 3.1985,

"BZD": 2.0000,

"CAD": 1.3513,

"CDF": 2550.8192,

"CHF": 0.8720,

"CLP": 872.9814,

"CNY": 7.1423,

"COP": 3997.7617,

"CRC": 527.6229,

"CUP": 24.0000,

"CVE": 101.3632,

"CZK": 22.3133,

"DJF": 177.7210,

"DKK": 6.8528,

"DOP": 56.6366,

"DZD": 134.0866,

"EGP": 31.0375,

"ERN": 15.0000,

"ETB": 56.1658,

"EUR": 0.9193,

"FJD": 2.2250,

"FKP": 0.7889,

"FOK": 6.8528,

"GBP": 0.7889,

"GEL": 2.7064,

"GGP": 0.7889,

"GHS": 12.1540,

"GIP": 0.7889,

"GMD": 66.1952,

"GNF": 8590.1632,

"GTQ": 7.7931,

"GYD": 209.5493,

"HKD": 7.8131,

"HNL": 24.5719,

"HRK": 6.9262,

"HTG": 132.5451,

"HUF": 348.4204,

"IDR": 15470.8846,

"ILS": 3.7183,

"IMP": 0.7889,

"INR": 83.2956,

"IQD": 1311.8331,

"IRR": 41994.9779,

"ISK": 138.7027,

"JEP": 0.7889,

"JMD": 155.3055,

"JOD": 0.7090,

"JPY": 147.2732,

"KES": 153.8723,

"KGS": 88.9241,

"KHR": 4114.5732,

"KID": 1.5047,

"KMF": 452.2507,

"KRW": 1299.2855,

"KWD": 0.3084,

"KYD": 0.8333,

"KZT": 461.0289,

"LAK": 20492.5661,

"LBP": 89000.0000,

"LKR": 325.3354,

"LRD": 190.2403,

"LSL": 18.6424,

"LYD": 4.8034,

"MAD": 10.0829,

"MDL": 17.7775,

"MGA": 4502.9660,

"MKD": 56.2641,

"MMK": 2093.8893,

"MNT": 3497.1944,

"MOP": 8.0476,

"MRU": 39.8766,

"MUR": 43.9273,

"MVR": 15.4502,

"MWK": 1694.5590,

"MXN": 17.2258,

"MYR": 4.6751,

"MZN": 63.9371,

"NAD": 18.6424,

"NGN": 793.3451,

"NIO": 36.4303,

"NOK": 10.7165,

"NPR": 133.2729,

"NZD": 1.6155,

"OMR": 0.3845,

"PAB": 1.0000,

"PEN": 3.7340,

"PGK": 3.7059,

"PHP": 55.3256,

"PKR": 285.5849,

"PLN": 3.9835,

"PYG": 7428.0956,

"QAR": 3.6400,

"RON": 4.5678,

"RSD": 107.3629,

"RUB": 90.7563,

"RWF": 1280.5001,

"SAR": 3.7500,

"SBD": 8.5075,

"SCR": 13.1348,

"SDG": 578.2590,

"SEK": 10.4154,

"SGD": 1.3356,

"SHP": 0.7889,

"SLE": 23.1444,

"SLL": 23144.3936,

"SOS": 572.7237,

"SRD": 38.1570,

"SSP": 1080.1779,

"STN": 22.5221,

"SYP": 12856.2981,

"SZL": 18.6424,

"THB": 35.0803,

"TJS": 10.9515,

"TMT": 3.5015,

"TND": 3.1112,

"TOP": 2.3299,

"TRY": 28.9177,

"TTD": 6.7325,

"TVD": 1.5047,

"TWD": 31.2768,

"TZS": 2512.4440,

"UAH": 36.4524,

"UGX": 3808.5144,

"UYU": 39.1054,

"UZS": 12312.5000,

"VES": 35.5806,

"VND": 24252.1232,

"VUV": 120.4224,

"WST": 2.7224,

"XAF": 603.0009,

"XCD": 2.7000,

"XDR": 0.7514,

"XOF": 603.0009,

"XPF": 109.6982,

"YER": 249.0452,

"ZAR": 18.6425,

"ZMW": 23.8470,

"ZWL": 5801.4461

};

function populateCurrencyDropdowns() {

const fromCurrencyDropdown = document.getElementById('fromCurrency');

const toCurrencyDropdown = document.getElementById('toCurrency');

for (const currencyCode in exchangeRates) {

const option = document.createElement('option');

option.value = currencyCode;

option.text = currencyCode;

fromCurrencyDropdown.add(option.cloneNode(true));

toCurrencyDropdown.add(option);

}

}

function convertCurrency() {

const fromCurrency = document.getElementById('fromCurrency').value;

const toCurrency = document.getElementById('toCurrency').value;

const amount = parseFloat(document.getElementById('amount').value);

if (isNaN(amount)) {

alert('Please enter a valid amount.');

return;

}

const fromRate = exchangeRates[fromCurrency];

const toRate = exchangeRates[toCurrency];

if (!fromRate || !toRate) {

alert('Invalid currency selected.');

return;

}

const result = (amount / fromRate) \* toRate;

document.getElementById('result').innerText = `${amount} ${fromCurrency} is equal to ${result.toFixed(2)} ${toCurrency}`;

document.getElementById('currencyResultContainer').style.display = "block";

}

populateCurrencyDropdowns();

var parkingData = [

];

const {

createClient

} = supabase

const \_supabase = createClient('https://pfwnyxmmxgydkohyqrto.supabase.co', 'eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpc3MiOiJzdXBhYmFzZSIsInJlZiI6InBmd255eG1teGd5ZGtvaHlxcnRvIiwicm9sZSI6ImFub24iLCJpYXQiOjE2OTk3MTg5NjMsImV4cCI6MjAxNTI5NDk2M30.v--PqHL9B8GMFNNW-bp-mMcr7p30V\_5hKXVUSRTBGxA');

async function getParkingData() {

const {

data,

error

} = await \_supabase

.from('ParkingSpot')

.select()

if (error) {

console.log(error);

} else {

parkingData = data;

}

}

function subscribeToParkingChanges() {

\_supabase

.channel('room1')

.on('postgres\_changes', {

event: '\*',

schema: 'public',

table: 'ParkingSpot'

}, async () => {

console.log("Received")

await getParkingData();

if (document.getElementById('parkingResults').style.display === "block") {

filterParkingData();

}

})

.subscribe()

}

function formatDateTime(dateString) {

const date = new Date(dateString);

const year = date.getFullYear();

const month = (date.getMonth() + 1).toString().padStart(2, '0'); // Month is 0-indexed

const day = date.getDate().toString().padStart(2, '0');

const hours = date.getHours().toString().padStart(2, '0');

const minutes = date.getMinutes().toString().padStart(2, '0');

const seconds = date.getSeconds().toString().padStart(2, '0');

return `${year}-${month}-${day} ${hours}:${minutes}:${seconds}`;

}

function filterParkingData() {

var fromDate = new Date(document.getElementById('fromDate').value);

var toDate = new Date(document.getElementById('toDate').value);

var filteredData = parkingData.filter(function(spot) {

var spotFromDate = new Date(spot.from\_datetime);

var spotToDate = new Date(spot.to\_datetime);

return spot.is\_available && spotFromDate >= fromDate && spotToDate <= toDate;

});

var resultsContainer = document.getElementById('resultsContainer');

if (filteredData.length === 0) {

resultsContainer.innerHTML = "No Results Found."

} else {

resultsContainer.innerHTML = '';

filteredData.forEach(function(spot) {

var div = document.createElement('div');

div.innerHTML = 'From: ' + formatDateTime(spot.from\_datetime) + ' To: ' + formatDateTime(spot.to\_datetime) + ' Price: ' + spot.price;

resultsContainer.appendChild(div);

});

}

function changeTextWithoutAffectingChildren(element, newText) {

for (let node of element.childNodes) {

if (node.nodeType === Node.TEXT\_NODE) {

node.nodeValue = newText;

break;

}

}

}

var backButton = document.createElement('button');

backButton.textContent = 'Back';

backButton.classList.add('btn', 'btn-primary');

backButton.style.marginTop = "20px";

backButton.style.display = "block";

backButton.onclick = function() {

changeTextWithoutAffectingChildren(document.getElementById('header-text'), 'Park Search');

document.getElementById('parkingForm').style.display = 'block';

document.getElementById('parkingResults').style.display = 'none';

resultsContainer.innerHTML = '';

};

resultsContainer.appendChild(backButton);

changeTextWithoutAffectingChildren(document.getElementById('header-text'), 'Parking Search Results');

document.getElementById('parkingResults').style.display = 'block';

document.getElementById('parkingForm').style.display = 'none';

}

function formatDateTime1(date) {

var local = new Date(date);

local.setMinutes(date.getMinutes() - date.getTimezoneOffset());

return local.toJSON().slice(0, 16);

}

function openPopup(title, description, imageUrl) {

document.getElementById('popupModalLabel').innerText = title;

document.getElementById('popupModalBody').innerText = description;

document.getElementById('popupImage').src = imageUrl;

$('#popupModal').modal('show');

}

Navbar.js:

$(document).ready(function() {

    $(window).scroll(function() {

        var scroll = $(window).scrollTop();

        if (scroll > 50) {

            $('.navbar').addClass('transparent');

        } else {

            $('.navbar').removeClass('transparent');

        }

    });

    $('.dropdown-toggle').dropdown();

});

document.getElementById('userIcon').addEventListener('click', () => {

    fetch('/logout', {

        method: 'GET',

        headers: {

            'Content-Type': 'application/json'

        },

    }).then()

    .catch(error => {

        if (!navigator.onLine) {

            console.error('No internet connection');

        } else {

            console.error('Fetch error:', error);

        }

    });

});

Perfume\_haven.js:

const {

    createClient

} = supabase

const \_supabase = createClient('https://pfwnyxmmxgydkohyqrto.supabase.co', 'eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpc3MiOiJzdXBhYmFzZSIsInJlZiI6InBmd255eG1teGd5ZGtvaHlxcnRvIiwicm9sZSI6ImFub24iLCJpYXQiOjE2OTk3MTg5NjMsImV4cCI6MjAxNTI5NDk2M30.v--PqHL9B8GMFNNW-bp-mMcr7p30V\_5hKXVUSRTBGxA');

function toggleFavorite(button) {

    button.classList.toggle('active');

    const card = button.closest('.card');

    const productId = card.getAttribute('data-id');

    fetch('/checkIfUserIsLoggedIn', {

            method: 'GET',

            headers: {

                'Content-Type': 'application/json'

            },

        }).then(response => {

            if (response.status === 200) {

                postData = {

                    'productID': productId

                };

                if (button.classList.contains('active')) {

                    fetch('/addItemWishlist', {

                            method: 'POST',

                            headers: {

                                'Content-Type': 'application/json'

                            },

                            body: JSON.stringify(postData)

                        }).then(response => {

                            if (response.status === 205) {

                                console.log("Added to Wishlist. ")

                            } else if (response.status === 413) {

                                console.log("Cannot add to wishlist");

                            }

                        })

                        .catch(error => {

                            if (!navigator.onLine) {

                                console.error('No internet connection');

                            } else {

                                console.error('Fetch error:', error);

                            }

                        });

                } else {

                    fetch('/removeItemWishlist', {

                            method: 'POST',

                            headers: {

                                'Content-Type': 'application/json'

                            },

                            body: JSON.stringify(postData)

                        }).then(response => {

                            if (response.status === 206) {

                                console.log("Removed from Wishlist. ")

                            } else if (response.status === 414) {

                                console.log("Cannot remove from wishlist");

                            }

                        })

                        .catch(error => {

                            if (!navigator.onLine) {

                                console.error('No internet connection');

                            } else {

                                console.error('Fetch error:', error);

                            }

                        });

                }

            } else if (response.status === 412) {

                console.error("Cannot check if the user is signed in.");

            }

        })

        .catch(error => {

            if (!navigator.onLine) {

                console.error('No internet connection');

            } else {

                console.error('Fetch error:', error);

            }

        });

}

let products = [];

let userWishlist = [];

async function getUserWishlist() {

    try {

        const response = await fetch('/checkIfUserIsLoggedIn');

        if (response.status === 200) {

const responseData = await response.json(); // Get JSON response

            const userEmail = responseData.email;

            const { data, error } = await \_supabase

                .from('UserWishlist')

                .select('item\_id')

                .eq('user\_email', userEmail);

            if (error) {

                console.error("Error fetching User Wishlist:", error);

            } else {

                userWishlist = data;

            }

        } else if (response.status === 412) {

            console.error("User is not signed in.");

        }

    } catch (error) {

        if (!navigator.onLine) {

            console.error('No internet connection');

        } else {

            console.error('Fetch error:', error);

        }

    }

}

async function getPerfumeDetails() {

    const {

        data,

        error

    } = await \_supabase

        .from('ShopItem')

        .select()

    if (error) {

        console.log("Error with fetching Shop Item Data");

    } else {

        products = data;

    }

    await getUserWishlist();

    populateSections();

}

function updateProductCard(card, product) {

    card.setAttribute('data-id', product.id);

    var card2 = card.closest('.card');

    var image = card2.querySelector('img');

    image.src = product.image\_url;

    const cardTitle = card.querySelector('.card-title');

    const cardDescription = card.querySelector('.card-description');

//    const favoriteButton = card.querySelector('.favorite-button');

    cardTitle.textContent = product.name;

    cardDescription.innerHTML = `Price: $${product.price} <br> Stock: ${product.stock\_number}`;

//    favoriteButton.classList.remove('active');

}

function populateSections() {

    const maxItemsPerSection = 10;

    const sections = [

        document.querySelector('#highlights-carousel .list'),

        document.querySelector('#her-highlights-carousel .list'),

        document.querySelector('#gift-highlights-carousel .list')

    ];

    let itemCount = 0;

    let sectionIndex = 0;

    products.forEach(product => {

        if (itemCount >= maxItemsPerSection) {

            itemCount = 0;

            sectionIndex++;

        }

        if (sectionIndex < sections.length) {

            const cards = sections[sectionIndex].querySelectorAll('.card');

            if (itemCount < cards.length) {

                updateProductCard(cards[itemCount], product);

const isFavorite = userWishlist.some(item => item.item\_id === product.id);

                const favoriteButton = cards[itemCount].querySelector('.favorite-button');

                if (isFavorite) {

                    favoriteButton.classList.add('active');

                } else {

                    favoriteButton.classList.remove('active');

                }

            }

            itemCount++;

        }

    });

}

function updateCardById(productId, updatedData) {

    const allCards = document.querySelectorAll('.card[data-id]');

    const cardToUpdate = Array.from(allCards).find(card => card.getAttribute('data-id') == productId);

    if (cardToUpdate) {

        updateProductCard(cardToUpdate, updatedData);

    }

}

document.addEventListener('DOMContentLoaded', function() {

    const highlightsLeftButton = document.getElementById('highlights-scroll-left');

    const herhighlightsLeftButton = document.getElementById('her-highlights-scroll-left');

    const gifthighlightsLeftButton = document.getElementById('gift-highlights-scroll-left');

    const highlightsRightButton = document.getElementById('highlights-scroll-right');

    const herhighlightsRightButton = document.getElementById('her-highlights-scroll-right');

    const gifthighlightsRightButton = document.getElementById('gift-highlights-scroll-right');

    highlightsLeftButton.onclick = function() {

        document.getElementById('highlights-carousel').scrollLeft -= 250;

    };

    herhighlightsLeftButton.onclick = function() {

        document.getElementById('her-highlights-carousel').scrollLeft -= 250;

    };

    gifthighlightsLeftButton.onclick = function() {

        document.getElementById('gift-highlights-carousel').scrollLeft -= 250;

    };

    highlightsRightButton.onclick = function() {

        document.getElementById('highlights-carousel').scrollLeft += 250;

    };

    herhighlightsRightButton.onclick = function() {

        document.getElementById('her-highlights-carousel').scrollLeft += 250;

    };

    gifthighlightsRightButton.onclick = function() {

        document.getElementById('gift-highlights-carousel').scrollLeft += 250;

    };

    getPerfumeDetails();

    \_supabase

        .channel('room1')

        .on('postgres\_changes', {

            event: 'UPDATE',

            schema: 'public',

            table: 'ShopItem'

        }, payload => {

            updateCardById(payload['old']['id'], payload['new']);

        })

        .subscribe()

        \_supabase

        .channel('room2')

        .on('postgres\_changes', {

            event: '\*',

            schema: 'public',

            table: 'UserWishlist'

        }, async () => {

            await getUserWishlist();

            populateSections();

        })

        .subscribe();

});

Waiting\_page.js:

if (window.location.hash) {

    const hash = window.location.hash.substring(1);

    const params = new URLSearchParams(hash);

    const accessToken = params.get('access\_token');

    const refreshToken = params.get('refresh\_token');

    const postData = {

        'accessToken': accessToken,

        'refreshToken': refreshToken

    };

    fetch('/auth/signin', {

        method: 'POST',

        headers: {

            'Content-Type': 'application/json'

        },

        body: JSON.stringify(postData)

    })

    .then(response => {

        if(response.status === 202){

        window.location.href = "/createAccount";

      }else if(response.status === 409){

        window.location.href = "/";

      }

    })

    .catch(error => {

        if (!navigator.onLine) {

            console.error('No internet connection');

        } else {

            console.error('Fetch error:', error);

        }

    });

}

const {

    createClient

} = supabase

const \_supabase = createClient('https://pfwnyxmmxgydkohyqrto.supabase.co', 'eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpc3MiOiJzdXBhYmFzZSIsInJlZiI6InBmd255eG1teGd5ZGtvaHlxcnRvIiwicm9sZSI6ImFub24iLCJpYXQiOjE2OTk3MTg5NjMsImV4cCI6MjAxNTI5NDk2M30.v--PqHL9B8GMFNNW-bp-mMcr7p30V\_5hKXVUSRTBGxA');

let wishlistData = [];

function getWishlistData() {

    fetch('/getWishlist', {

        method: 'GET',

        headers: {

            'Content-Type': 'application/json'

        },

    })

    .then(response => {

        if (!response.ok) {

            throw new Error(`HTTP error! status: ${response.status}`);

        }

        return response.json();

    })

    .then(data => {

        wishlistData = data.products;

        document.getElementById('productContainer').innerHTML = "";

        populateCards();

    })

    .catch(error => {

        if (!navigator.onLine) {

            console.error('No internet connection');

        } else {

            console.error('Fetch error:', error);

        }

    });

}

function populateCards(){

    wishlistData.forEach(product => {

        createProductElement(product)

    });

}

async function subscribeToChannel() {

    \_supabase

        .channel('room1')

        .on('postgres\_changes', {

            event: '\*',

            schema: 'public',

            table: 'UserWishlist'

        }, payload => {

            getWishlistData();

        })

        .subscribe();

    \_supabase

        .channel('room2')

        .on('postgres\_changes', {

            event: 'UPDATE',

            schema: 'public',

            table: 'ShopItem'

        }, payload => {

            updateProductElement(payload['old']['id'], payload['new']);

        })

        .subscribe()

}

function updateProductElement(productId, newData) {

    const productElement = document.querySelector(`[data-product-id="${productId}"]`);

    if (productElement) {

        productElement.querySelector('.product-name').textContent = newData.name;

        productElement.querySelector('.product-stock').textContent = newData.stock\_number;

        productElement.querySelector('.product-price').textContent = `$${newData.price}`;

        // Uncomment this if the image is fetched from the storage bucket

//        productElement.querySelector('.product-image').src = newData.imageUrl;

    }

}

function removeItemWishlist(productID){

    const postData = {

       'productID': productID

  };

  fetch('/removeItemWishlist', {

      method: 'POST',

      headers: {

          'Content-Type': 'application/json'

      },

      body: JSON.stringify(postData)

  }).then(response => {

    if(!response.ok){

        console.error("Can't create account");

    }

  })

    .catch(error => {

    if (!navigator.onLine) {

        console.error('No internet connection');

    } else {

        console.error('Fetch error:', error);

    }

  });

}

function createProductElement(product) {

    const mainDiv = document.createElement('div');

    mainDiv.className = 'row p-2 bg-white border rounded mt-2';

    mainDiv.setAttribute('data-product-id', product.id);

    const imgDiv = document.createElement('div');

    imgDiv.className = 'col-md-3 mt-1';

    const img = document.createElement('img');

    img.className = 'img-fluid img-responsive rounded product-image';

    img.src = product.image\_url === "" ? '../static/images/perfume5-her.jpg' : product.image\_url;

    imgDiv.appendChild(img);

    const detailsDiv = document.createElement('div');

    detailsDiv.className = 'col-md-6 mt-1';

    const br1 = document.createElement('br');

    const br2 = document.createElement('br');

    const br3 = document.createElement('br');

    const productName = document.createElement('h5');

    productName.className = 'mr-1 product-name';

    productName.textContent = product.name;

    const priceDiv = document.createElement('div');

    priceDiv.className = 'd-flex flex-row align-items-center';

    const price = document.createElement('h4');

    price.className = 'mr-1 product-price';

    price.textContent = `$${product.price}`;

    const productShop = document.createElement('h6');

    productShop.textContent = `Shop: ${product.shop\_name}`;

    const productStock = document.createElement('h6');

    productStock.className = 'mr-1 product-stock';

    productStock.textContent = `Stock Left: ${product.stock\_number}`;

    priceDiv.appendChild(price);

    detailsDiv.appendChild(br1);

    detailsDiv.appendChild(br2);

    detailsDiv.appendChild(br3);

    detailsDiv.appendChild(productName);

    detailsDiv.appendChild(priceDiv);

    detailsDiv.appendChild(productShop);

    detailsDiv.appendChild(productStock);

    const actionDiv = document.createElement('div');

    actionDiv.className = 'align-items-center align-content-center col-md-3 border-left mt-1';

    const br4 = document.createElement('br');

    const br5 = document.createElement('br');

    const br6 = document.createElement('br');

    const br7 = document.createElement('br');

    const buttonDiv = document.createElement('div');

    buttonDiv.className = 'd-flex flex-column mt-4';

    const button = document.createElement('button');

    button.setAttribute('data-product-id', product.id);

    button.className = 'btn btn-primary btn-sm';

    button.type = 'button';

    button.textContent = 'Remove from Wishlist';

    button.addEventListener('click', () => removeItemWishlist(product.id));

    buttonDiv.appendChild(button);

    actionDiv.appendChild(br4);

    actionDiv.appendChild(br5);

    actionDiv.appendChild(br6);

    actionDiv.appendChild(br7);

    actionDiv.appendChild(buttonDiv);

    mainDiv.appendChild(imgDiv);

    mainDiv.appendChild(detailsDiv);

    mainDiv.appendChild(actionDiv);

    document.getElementById('productContainer').appendChild(mainDiv);

}

document.addEventListener('DOMContentLoaded', function() {

    getWishlistData();

    subscribeToChannel();

});

Login.js:

(function ($) {

    "use strict";

    $('.input100').each(function(){

        $(this).on('blur', function(){

            if($(this).val().trim() != "") {

                $(this).addClass('has-val');

            }

            else {

                $(this).removeClass('has-val');

            }

        })

    })

    var input = $('.validate-input .input100');

    $('.validate-form').on('submit',function(){

        var check = true;

        for(var i=0; i<input.length; i++) {

            if(validate(input[i]) == false){

                showValidate(input[i]);

                check=false;

            }

        }

        return check;

    });

    $('.validate-form .input100').each(function(){

        $(this).focus(function(){

           hideValidate(this);

        });

    });

    function validate (input) {

        if($(input).attr('type') == 'email' || $(input).attr('name') == 'email') {

            if($(input).val().trim().match(/^([a-zA-Z0-9\_\-\.]+)@((\[[0-9]{1,3}\.[0-9]{1,3}\.[0-9]{1,3}\.)|(([a-zA-Z0-9\-]+\.)+))([a-zA-Z]{1,5}|[0-9]{1,3})(\]?)$/) == null) {

                return false;

            }

        }

        else {

            if($(input).val().trim() == ''){

                return false;

            }

        }

    }

    function showValidate(input) {

        var thisAlert = $(input).parent();

        $(thisAlert).addClass('alert-validate');

    }

    function hideValidate(input) {

        var thisAlert = $(input).parent();

        $(thisAlert).removeClass('alert-validate');

    }

    /\*==================================================================

    [ Show pass ]\*/

    var showPass = 0;

    $('.btn-show-pass').on('click', function(){

        if(showPass == 0) {

            $(this).next('input').attr('type','text');

            $(this).addClass('active');

            showPass = 1;

        }

        else {

            $(this).next('input').attr('type','password');

            $(this).removeClass('active');

            showPass = 0;

        }

    });

})(jQuery);

**C-app.py:**

import asyncio

import json

import logging

import os

import smtplib

from threading import Thread

import pika

from flask import Flask, render\_template, request, redirect, session, jsonify, send\_from\_directory

from postgrest.types import CountMethod

from realtime.connection import Socket

from supabase import create\_client

from email.mime.text import MIMEText

from email.mime.multipart import MIMEMultipart

SUPABASE\_KEY = "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpc3MiOiJzdXBhYmFzZSIsInJlZi" \

               "I6InBmd255eG1teGd5ZGtvaHlxcnRvIiwicm9sZSI6InNlcnZpY2Vfcm9sZSIsImlhdC" \

               "I6MTY5OTcxODk2MywiZXhwIjoyMDE1Mjk0OTYzfQ.kwP3iq4l864G5fVXaFmMe33DsFrAgCebgeViDNKITp8"

SUPABASE\_URL = "https://pfwnyxmmxgydkohyqrto.supabase.co"

SUPABASE\_ID = "pfwnyxmmxgydkohyqrto"

app = Flask(\_\_name\_\_, template\_folder="templates", static\_folder="static")

app.secret\_key = "akCFjVK8q+jiyAmayEDpabiUNp/ZcPfuA5Tdjmdprdjn/Ke51oJY0C92oHdDVXrtcf83e1357eefb8bdf1542850d66d8007d6" \

                 "20e4050b5715dc83f4a921d36ce9ce47d0d13c5d85f2b0ff8318d2877eec2f63b931bd47417a81a538327af927da3e"

app.config["SESSION\_PERMANENT"] = True

try:

    client = create\_client(SUPABASE\_URL, SUPABASE\_KEY)

except Exception as e:

    logging.exception("Cannot create client. ERROR:" + str(e))

@app.route('/favicon.ico')

def favicon():

    return send\_from\_directory(os.path.join(app.root\_path, 'static'),

                               'images/favicon.ico', mimetype='images/vnd.microsoft.icon')

@app.route('/flightInfo')

def info():

    return render\_template('flight\_info.html')

@app.route('/checkIfUserIsLoggedIn')

def check\_sign\_in():

    if 'accessToken' in session:

        return jsonify(email=session['email']), 200

    else:

        return 'User is not signed in', 412

@app.route('/addItemWishlist', methods=['POST'])

def addItemWishList():

    if 'email' in session:

        try:

            client.table('UserWishlist').insert(

                {"user\_email": session['email'], "item\_id": request.json.get('productID')}).execute()

        except Exception as E:

            logging.error("Cannot add to Wishlist. " + str(E))

            return 'Cannot add to Wishlist', 413

        return 'Added to Wishlist', 205

    else:

        return 'Cannot add to Wishlist', 413

@app.route('/removeItemWishlist', methods=['POST'])

def removeItemWishList():

    if 'email' in session:

        try:

            client.table('UserWishlist').delete().match(

                {"user\_email": session['email'], "item\_id": request.json.get('productID')}).execute()

        except Exception as E:

            logging.error("Cannot remove from Wishlist. " + str(E))

            return 'Cannot remove from Wishlist', 414

        return 'Removed from Wishlist', 206

    else:

        return 'Cannot remove from Wishlist', 414

@app.route('/login')

def login():

    return render\_template('login.html')

@app.route('/logout')

def logout():

    if "email" in session:

        session.pop("email")

        print("LOGGED OUT")

        return redirect("/")

    else:

        return redirect("/login")

@app.route('/createAccount')

def signup():

    return render\_template('signup.html')

@app.route('/auth/createAccount', methods=['GET', 'POST'])

def authCreateAccount():

    data = request.json

    username = str(data.get('username'))

    if 'email' in session:

        try:

            client.table('User').insert({"username": username, "email": str(session['email'])}).execute()

        except Exception as E:

            logging.exception("Cannot insert data to the database" + str(E))

            return "Cannot insert data to the database", 406

    return "Account created successfully", 201

@app.route('/signin', methods=['GET', 'POST'])

def authEmail():

    if request.method == 'POST':

        email = request.form.get('email-input')

        redirect\_uri = request.url\_root + 'auth/signin'

        try:

            client.auth.sign\_in\_with\_otp({

                "email": email,

                "options": {

                    "email\_redirect\_to": redirect\_uri

                }

            })

        except Exception as E:

            logging.exception("Problem with Signin with email otp. ERROR:" + str(E))

            return "Problem with Signin with email otp.", 410

        return redirect("/confirmEmail")

    return "Logging in..."

@app.route('/confirmEmail')

def confirmEmail():

    return "We have sent you an email. It will arrive shortly!"

@app.route('/signinWithGoogle')

def authGoogle():

    redirect\_uri = request.url\_root + 'auth/signin'

    return redirect(f'{SUPABASE\_URL}/auth/v1/authorize?provider=google&redirect\_to={redirect\_uri}')

@app.route('/auth/signin', methods=['GET', 'POST'])

def authCallback():

    accessToken = None

    refreshToken = None

    if request.method == "POST":

        data = request.json

        accessToken = data.get('accessToken')

        refreshToken = data.get('refreshToken')

    if accessToken is not None:

        try:

            sessionData = client.auth.set\_session(accessToken, refreshToken)

            session['accessToken'] = accessToken

            session['refreshToken'] = refreshToken

            session['email'] = str(sessionData.user.email)

        except Exception as E:

            logging.exception("Cannot set session data. ERROR:" + str(E))

            return "Cannot fetch data from the database.", 407

        try:

            data, count = client.table('User').select('email', count=CountMethod.exact).eq('email',

                                                                                           str(sessionData.user.email)).execute()

        except Exception as E:

            logging.exception("Cannot fetch data from the database. ERROR:" + str(E))

            return "Cannot fetch data from the database.", 408

        if count[1] == 0:

            return "Account creation process is proceeding", 202

        else:

            return "Account already found", 409

    else:

        return render\_template("waiting\_page.html")

@app.route('/dining')

def dining():

    return render\_template('dining.html')

@app.route('/perfume-haven')

def perfumeHaven():

    return render\_template('perfume\_haven.html')

@app.route('/shopping')

def shopping():

    return render\_template('shopping.html')

@app.route('/trackFlight', methods=['POST'])

def trackFlight():

    flightID = request.json.get("flightID")

    flightNumber = request.json.get("flightNumber")

    if 'email' in session:

        try:

            data, count = client.table('User').select('\*').eq('email', str(session['email'])).execute()

            if len(data[1]) != 0:

                client.table('TrackFlight').insert(

                    {"flight\_id": int(flightID), "user\_id": int(data[1][0]['id']), "flight\_number": flightNumber,

                     "user\_email": str(session['email'])}).execute()

            else:

                return "Error", 411

        except Exception as E:

            logging.error("ERROR with inserting track flight data into DB: " + str(E))

            return "Error", 411

        return "Success", 203

    return "Could not track flight. Please make sure that you are logged in.", 411

@app.route('/sendFeedback', methods=['POST'])

def sendFeedback():

    data = request.json

    if 'email' in session:

        try:

            a = {"rating": data.get("rating"), "comment": data.get("comment"), "user\_email": session['email']}

            client.table("Feedback").insert(a).execute()

            return "Feedback added", 200

        except Exception as E:

            logging.error("Could not add feedback to database. " + str(E))

            return "Could not add feedback to database.", 415

    else:

        return "Could not add feedback to database.", 415

@app.route('/getWishlist')

def getWishlist():

    if 'email' in session:

        data1, count = client.table('UserWishlist').select('\*').eq('user\_email', session['email']).execute()

        products = []

        for record in data1[1]:

            data, count = client.table('ShopItem').select('\*').eq('id', record['item\_id']).execute()

            products.append(data[1][0])

        return jsonify(products=products), 200

    return "Could not get the wishlist", 416

@app.route('/wishlist')

def wishlist():

    if "email" in session:

        return render\_template("wishlist.html")

    else:

        return "Cannot access this page. Make sure that you are logged in.", 417

@app.route('/')

def home():

    return render\_template('index.html')

@app.route('/en=it')

def italianHome():

    return render\_template('home.html')

def callback1(payload):

    if 'table' in payload and payload['table'] == "Flight" and (

            payload['type'] == 'UPDATE' or payload['type'] == 'UPSERT'):

        data, count = client.table("TrackFlight").select("\*").eq("flight\_id", payload['record']['id']).execute()

        for record in data[1]:

            connection = pika.BlockingConnection(pika.ConnectionParameters('localhost'))

            channel = connection.channel()

            channel.queue\_declare(queue='email\_queue')

            json\_payload = json.dumps(payload)

            message = f'{record["user\_email"]};{json\_payload}'

            channel.basic\_publish(exchange='', routing\_key='email\_queue', body=message)

            connection.close()

    elif 'table' in payload and payload['table'] == 'Flight' and payload['type'] == 'DELETE':

        data, count = client.table("TrackFlight").select("\*").eq("flight\_id", payload['old\_record']['id']).execute()

        flightNumber = data[1][0]['flight\_number']

        data, count = client.table("TrackFlight").select("\*").eq("flight\_number", flightNumber).execute()

        for record in data[1]:

            connection = pika.BlockingConnection(pika.ConnectionParameters('localhost'))

            channel = connection.channel()

            channel.queue\_declare(queue='email\_queue')

            a = {"flight\_number": flightNumber}

            message = f'{record["user\_email"]};{json.dumps(a)}'

            channel.basic\_publish(exchange='', routing\_key='email\_queue', body=message)

            connection.close()

        data, count = client.table("TrackFlight").delete().eq("flight\_number", data[1][0]['flight\_number']).execute()

def send\_email(receiverEmail, payload):

    try:

        payload = json.loads(payload)

    except json.JSONDecodeError as e:

        logging.error(f"Error parsing JSON payload: {e}")

        return

    sender = "markhallak@outlook.com"

    message = MIMEMultipart("alternative")

    message['From'] = sender

    message['To'] = receiverEmail

    if "type" in payload and (payload["type"] == "UPDATE" or payload["type"] == "UPSERT"):

        message['Subject'] = "Change in the Flight"

        html = f"""

        <html>

        <body>

        Dear User,

        <br>

        <br>

        We are sad to inform you that there was some changes in the flight course.

        <br>

        <br>

        The <strong>new</strong> flight information is the following:

        <br>

        <br>

        <p><i>Flight number: </i> {payload['record']['flight\_number']}</p>

        <p><i>Status: </i> {payload['record']['status']}</p>

        <p><i>Check In Row: </i> {payload['record']['check\_in\_row']}</p>

        <p><i>In-Flight Entertainment options: </i> {payload['record']['inflight\_entertainment\_option']}</p>

        <p><i>Meal Service: </i> {payload['record']['meal\_service']}</p>

        <p><i>Scheduled Time: </i> {payload['record']['scheduled\_time']}</p>

        <p>{("<i>Origin Location: </i> " + str(payload['record']['origin\_location']) if payload['record']['isArriving'] is True else "<i>Destination Location: </i>" + str(str(payload['record']['destination\_location'])))}</p>

        <p><i>Airline Name: </i> {payload['record']['airline\_name']}</p>

        <p><i>Terminal Name: </i> {payload['record']['terminal\_name']}</p>

        <p><i>Gate Name: </i> {payload['record']['gate\_name']}</p>

        <p><i>Scheduled Day: </i> {payload['record']['scheduled\_day']}</p>

        <br>

        <br>

        Best Regards,

        <br>

        ASM Team

        </body>

        </html>

        """

        message.attach(MIMEText(html, "html"))

    elif "flight\_number" in payload:

        message['Subject'] = "Flight Deleted"

        html = f"""

        <html>

        <body>

        Dear User,

        <br>

        <br>

        Unfortunately, your flight <strong>#{payload['flight\_number']}</strong> is not <strong>available</strong> anymore.

        <br>

        <br>

        Best Regards,

        <br>

        ASM Team

        """

        message.attach(MIMEText(html, "html"))

    try:

        smtpObj = smtplib.SMTP('smtp-mail.outlook.com', 587)

    except Exception as E:

        logging.exception("Error with sending email on port 587. " + str(E))

        smtpObj = smtplib.SMTP\_SSL('smtp-mail.outlook.com', 465)

    try:

        smtpObj.ehlo()

        smtpObj.starttls()

        smtpObj.login('markhallak@outlook.com', "WRVRyt!@,.")

        smtpObj.sendmail('markhallak@outlook.com', receiverEmail, message.as\_string())

        smtpObj.quit()

    except Exception as E:

        logging.error("Error with the SMTP Server. " + str(E))

def startFlaskApp():

    app.run()

def startSocket():

    URL = f"wss://{SUPABASE\_ID}.supabase.co/realtime/v1/websocket?apikey={SUPABASE\_KEY}&vsn=1.0.0"

    loop = asyncio.new\_event\_loop()

    asyncio.set\_event\_loop(loop)

    try:

        flag = False

        while not flag:

            try:

                s = Socket(URL)

                flag = True

            except Exception as E:

                logging.error("Cannot initialize the realtime socket. " + str(E))

        flag = False

        while not flag:

            try:

                s.connect()

                flag = True

            except Exception as E:

                logging.error("Cannot connect socket. " + str(E))

        channel\_1 = s.set\_channel("realtime:\*")

        channel\_1.join().on("\*", callback1)

        s.listen()

        loop.run\_forever()

    finally:

        loop.close()

def parse\_email\_info(body):

    body\_str = body.decode('utf-8')

    email\_details = body\_str.split(';')

    return {

        'receiverEmail': email\_details[0],

        'payload': email\_details[1]

    }

def start\_pika\_consumer():

    def callback(ch, method, properties, body):

        email\_info = parse\_email\_info(body)

        send\_email(email\_info['receiverEmail'], email\_info['payload'])

    connection = pika.BlockingConnection(pika.ConnectionParameters('localhost'))

    channel = connection.channel()

    channel.queue\_declare(queue='email\_queue')

    channel.basic\_consume(queue='email\_queue', on\_message\_callback=callback, auto\_ack=True)

    channel.start\_consuming()

if \_\_name\_\_ == '\_\_main\_\_':

    t1 = Thread(target=startFlaskApp)

    t2 = Thread(target=startSocket)

    tp = Thread(target=start\_pika\_consumer)

    tp.start()

    t1.start()

    t2.start()

    logging.getLogger("pika").setLevel(logging.WARNING)

    tp.join()

    t1.join()

    t2.join()

**Test Cases**

**User requirement #1:** ASM shall display real-time flight information on all arrivals including the airline, flight number, origin country, scheduled time of arrival, terminal, and flight status (cancelled, delayed, arrived, confirmed)

|  |  |
| --- | --- |
| **Test Case ID:** FlightArrivalInfoSystem | **Test Designed By:** Mark Hallak |
| **Test Priority (Low/Medium/High):** High | **Test Designed Date:** 11/14/2023 |
| **Module Name:** Real-time Flight Information Display | **Test Executed By:** Mark Hallak |
| **Test Title:** Verify display of real-time flight arrival information | **Test Execution Date:** 11/14/2023 |
| **Description:** Validate that the ASM system displays all required flight details for arrivals. |  |
|  | |
| **Pre-conditions:** User has a stable internet connection and flight data is available. | |
| **Dependencies:** A functional database system. | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Navigate to the ASM interface for arrival flights. | N/A | The ASM interface for arrival flights should be displayed. | The ASM interface loads correctly. | Pass |  |
| 2 | Check for the display of airline name. | Airline: "MockAir" | Airline name "MockAir" should be displayed in the respective field. | The airline name is displayed correctly. | Pass |  |
| 3 | Check for the display of flight number. | Flight Number: "MA123" | Flight Number "MA123" should be displayed in the respective field. | The flight number is displayed correctly. | Pass |  |
| 4 | Check for the display of origin country. | Origin Country: "Mockland" | Origin country "Mockland" should be displayed in the respective field. | The origin country is displayed correctly. | Pass |  |
| 5 | Check for the display of scheduled time of arrival. | Scheduled Time: "14:00" | Scheduled time of arrival "14:00" should be displayed in the respective field. | The scheduled time is displayed correctly. | Pass |  |
| 6 | Check for the display of terminal number. | Terminal: "1" | Terminal number "1" should be displayed in the respective field. | The terminal number is displayed correctly. | Pass |  |
| 7 | Check for the display of the flights’ status | Status:  “Delayed” | Status “Delayed” should be displayed in the respective field. | The flight’s status is displayed correctly. | Pass |  |
|  | | | | | | |
| **Post-conditions:** The real-time flight information is displayed correctly. | | | | | | |

**User requirement #2:** Shall have access to real-time flight information on all departures including the airline, flight number, destination, scheduled time of departure, terminal, gate, check-in row/door and flight status (Gates open, boarding, last call, gates closed, departed, cancelled, delayed).

|  |  |
| --- | --- |
| **Test Case ID:** FlightDepartureInfoSystem | **Test Designed By:** Mark Hallak |
| **Test Priority (Low/Medium/High):** High | **Test Designed Date:** 11/14/2023 |
| **Module Name:** Real-time Flight Information Display | **Test Executed By:** Mark Hallak |
| **Test Title:** Verify display of real-time flight departure information | **Test Execution Date:** 11/14/2023 |
| **Description:** Validate that the ASM system displays all required flight details for departures. |  |
|  | |
| **Pre-conditions:** User has a stable internet connection and flight data is available. | |
| **Dependencies:** A functional database system. | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Navigate to the ASM interface for departure flights. | N/A | The ASM interface for departure flights should be displayed. | The ASM interface loads correctly. | Pass |  |
| 2 | Check for the display of airline name. | Airline: "MockAir" | Airline name "MockAir" should be displayed in the respective field. | The airline name is displayed correctly. | Pass |  |
| 3 | Check for the display of flight number. | Flight Number: "MA123" | Flight Number "MA123" should be displayed in the respective field. | The flight number is displayed correctly. | Pass |  |
| 4 | Check for the display of origin country. | Destination Country: "Mockland" | Destination country "Mockland" should be displayed in the respective field. | The destination country is displayed correctly. | Pass |  |
| 5 | Check for the display of scheduled time of departure. | Scheduled Time: "14:00" | Scheduled time of departure "14:00" should be displayed in the respective field. | The scheduled time is displayed correctly. | Pass |  |
| 6 | Check for the display of terminal number. | Terminal: "1" | Terminal number "1" should be displayed in the respective field. | The terminal number is displayed correctly. | Pass |  |
| 7 | Check for the display of the flight’s status | Status: “Delayed” | Status “Delayed” should be displayed in the respective field. | The flight’s status is displayed correctly. | Pass |  |
|  | | | | | | |
| **Post-conditions:** The real-time flight information display is working correctly. | | | | | | |

**User requirement #3:** ASM shall display real-time weather updates for different airports.

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| --- | --- |
| **Test Case ID:** WeatherInfoSystem\_1 | **Test Designed By:** Mark Hallak |
| **Test Priority (Low/Medium/High):** High | **Test Designed Date:** 11/14/2023 |
| **Module Name:** Real-time Weather Information Display | **Test Executed By:** Mark Hallak |
| **Test Title:** Verify display of real-time weather information | **Test Execution Date:** 11/14/2023 |
| **Description:** Validate that the ASM system displays all the weather information for different airports. |  |
|  | |
| **Pre-conditions:** User has a stable internet connection and weather data is available. | |
| **Dependencies:** A functional database system. | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Navigate to the ASM interface for weather information. | N/A | The ASM interface for weather information should be displayed. | The ASM interface loads correctly. | Pass |  |
| 2 | Check for the humidity percentage. | Humidity: 65% | Humidity percentage should be displayed in the respective field. | The humidity percentage is displayed correctly. | Pass |  |
| 3 | Check for the temperature. | Temperature: 26o | Temperature should be displayed in the respective field. | The temperature is displayed correctly. | Pass |  |
| 4 | Check for the wind speed. | Wind speed: 8 km/h | Wind speed should be displayed in the respective field. | The wind speed is displayed correctly. | Pass |  |
| 5 | Check for the UV Index. | UV Index: 2 | UV Index should be displayed in the respective field. | The UV Index is displayed correctly. | Pass |  |
|  | | | | | | |
| **Post-conditions:** The real-time weather information display is working correctly. | | | | | | |

**User requirement #4:** Shall be able to search for specific flights by flight number, airline, city, date, or timings

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| --- | --- |
| **Test Case ID:** FlightSearchFunctionality | **Test Designed By:** Mark Hallak |
| **Test Priority (Low/Medium/High):** High | **Test Designed Date:** 11/14/2023 |
| **Module Name:** Flight Search Functionality | **Test Executed By:** Mark Hallak |
| **Test Title:** Verify search functionality for specific flights | **Test Execution Date:** 11/14/2023 |
| **Description:** The system should allow users to search for flights using various criteria such as flight number, airline, city, date, and timings. |  |
|  | |
| **Pre-conditions:** Flight data is available. | |
| **Dependencies:** A functional database system and a functional search feature. | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Navigate to the ASM flights interface. | N/A | The ASM interface for weather information should be displayed. | The ASM interface loads correctly. | Pass |  |
| 2 | Enter a valid flight number into the search field. | Flight number: FL123 | The system should display the flight information corresponding to the entered flight number. | The system displays the flight information corresponding to the entered flight number. | Pass |  |
| 3 | Search for a flight using the airline name. | Airline: MockAir | The system should display all flights associated with MockAir. | The system displays all flights associated with MockAir. | Pass |  |
| 4 | Perform a search using the city of origin. | City: Toronto | The system should display flights departing from or arriving at Toronto. | The system displays flights departing from or arriving at Toronto | Pass |  |
| 5 | Search for flights on a specific date. | Date: 2023-05-23 | The system should display flights scheduled on the specified date. | The system displays flights scheduled on the specified date. | Pass |  |
| 6 | Perform a search using specific timing. | Timing: 10:00 AM | The system should display flights around the specified time. | The system displays flights around the specified time. | Pass |  |
| 7 | Perform a search using multiple criteria. | City: Toronto, Date: 2023-05-23 | The system should display the flight that matches all the entered search criteria. | The system displays the flight that matches all the entered search criteria. | Pass |  |
| 8 | Check the system's response to an invalid search query. | Flight number: INVALID123 | The system should display a message indicating no results found or an error message. | The system displays a message indicating no results found or an error message. | Pass |  |
| 9 | Verify the clear search functionality. | Perform a search and then clear the search field. | The system should clear the search results and resets any filled search fields. | The system clears the search results and resets any filled search fields. | Pass |  |
|  | | | | | | |
| **Post-conditions:** The system is ready for the next search query and the search criteria are reset. | | | | | | |

**User requirement #5:** Shall be able to follow and track specific flights, thereby receiving reminders and alerts on flight status and changes by email.

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| **Test Case ID:** FlightSearchFunctionality | **Test Designed By:** Mark Hallak |
| **Test Priority (Low/Medium/High):** High | **Test Designed Date:** 11/14/2023 |
| **Module Name:** FlightTrackingAndEmailNotifyingSystem | **Test Executed By:** Mark Hallak |
| **Test Title:** Verify tracking and receiving flight status changes by email | **Test Execution Date:** 11/14/2023 |
| **Description:** Users shall be able to follow and track specific flights and receive reminders and alerts on flight status changes by email. |  |
|  | |
| **Pre-conditions:** The system is capable of sending emails; flight data and user email addresses are available; User is admin. | |
| **Dependencies:** Email system integration, a functional database system, and a user account system are needed. | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Navigate to the ASM login interface. | N/A | The ASM login interface should be displayed. | The ASM interface loads correctly. | Pass |  |
| 2 | Log in to the system with valid credentials. | Email: [jess@outlook.com](mailto:jess@outlook.com)  Password: ABCDabcd123!@# | User should be signed in and access to flight tracking features should be granted. | User is signed in and access to flight tracking features is granted. | Pass |  |
| 3 | Navigate to the ASM flight interface. | N/A | The ASM interface for arrival flights should be displayed. | The ASM interface loads correctly. | Pass |  |
| 4 | Select a random flight to track by clicking on the “Track” button next to the flight number. | Flight “MA123” | The selected flight should be added to the user's tracking list and be able to receive updates. | The selected flight is added to the user's tracking list and is able to receive updates. | Pass |  |
| 5 | Simulate a flight status change to the tracked flight. | Status change: Delayed | An email alert for the flight status change should be received. | An email alert for the flight status change is received. | Pass |  |
| 6 | Simulate another flight status update. | Status update: Boarding | A second email alert should be received with the new status update. | A second email alert is received with the new status update. | Pass |  |
| 7 | Unfollow the tracked flight. | N/A | The flight should be removed from the user's tracking list and no further emails should be sent. | The flight is removed from the user's tracking list and no further emails are sent. | Pass |  |
|  | | | | | | |
| **Post-conditions:** The email notifying system is working properly. | | | | | | |

**User requirement #6**: Shall be able to pick a language through the language selector to cater to international travellers and ensure accessibility of information.

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| **Test Case ID:** MultiLanguageFunctionality | **Test Designed By:** Mark Hallak |
| **Test Priority (Low/Medium/High):** Medium | **Test Designed Date:** 11/14/2023 |
| **Module Name:** Language Selection Feature | **Test Executed By:** Mark Hallak |
| **Test Title:** Verify functionality of the language selector | **Test Execution Date:** 11/14/2023 |
| **Description:** Users shall be able to pick a language from the language selector to ensure the accessibility of information. |  |
|  | |
| **Pre-conditions:** The system has multiple languages available for selection. | |
| **Dependencies:** None. | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Navigate to the ASM home interface. | N/A | The ASM home interface should be displayed. | The ASM interface loads correctly. | Pass |  |
| 2 | Select a commonly used language from the selector. | Language: Spanish | The system content should be displayed in Spanish. | The system content is displayed in Spanish. | Pass |  |
| 3 | Verify language selection persistence after system restart or log out. | Language: Spanish | Upon system restart or re-login, the system should retain most recent language selection. | Upon system restart or re-login, the system retains most recent language selection. | Pass |  |
|  | | | | | | |
| **Post-conditions:** The language selection system is working properly. | | | | | | |

**User requirement #7**: Shall have access to in-flight information, when the user clicks on a specific flight, such as in-flight entertainment options, meal services.

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| --- | --- |
| **Test Case ID:** In-Flight\_Information\_Functionality | **Test Designed By:** Mark Hallak |
| **Test Priority (Low/Medium/High):** Medium | **Test Designed Date:** 11/14/2023 |
| **Module Name:** In-Flight Information Access | **Test Executed By:** Mark Hallak |
| **Test Title:** Verify access to in-flight entertainment and meal services information | **Test Execution Date:** 11/14/2023 |
| **Description:** When a user selects a specific flight, they should be presented with detailed in-flight services information including entertainment and meal options. |  |
|  | |
| **Pre-conditions:** Flight data is available; the user has a stable internet connection. | |
| **Dependencies:** A functional database system. | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Navigate to the ASM flights interface. | N/A | The ASM flights interface should be displayed. | The ASM interface loads correctly. | Pass |  |
| 2 | Click on a flight to access its details. | N/A | Detailed view of the selected flight should be displayed. | Detailed view of the selected flight is displayed. | Pass |  |
| 3 | In the flight details view, locate and access the in-flight services information. | N/A | Information about in-flight entertainment and meal services should be displayed. | Information about in-flight entertainment and meal services is displayed. | Pass |  |
| 4 | Verify the details of in-flight entertainment options. | N/A | A list of entertainment options such as movies, music, games should be displayed. | A list of entertainment options such as movies, music, games is displayed. | Pass |  |
| 5 | Check the information regarding meal services. | N/A | Details of meal services including menu options, meal times, and how to order should be presented. | Details of meal services including menu options, meal times, and how to order are presented. | Pass |  |
| 6 | Confirm the accessibility of in-flight information for different classes | Class Selection: Economy | In-flight services information should reflect the offerings pertinent to the selected class. | In-flight services information is reflected the offerings pertinent to the selected class. | Pass |  |
| 7 | Confirm the accessibility of in-flight information for different classes | Class Selection: Business | In-flight services information should reflect the offerings pertinent to the selected class. | In-flight services information is reflected the offerings pertinent to the selected class. | Pass |  |
| 8 | Confirm the accessibility of in-flight information for different classes | Class Selection: First-class | In-flight services information should reflect the offerings pertinent to the selected class. | In-flight services information is reflected the offerings pertinent to the selected class. | Pass |  |
| 9 | Evaluate the response of the system when no in-flight information is available. | Flight with no in-flight services data. | An appropriate message indicating the absence of in-flight services information should be displayed. | An appropriate message indicating the absence of in-flight services information is displayed. | Pass |  |
|  | | | | | | |
| **Post-conditions:** The in-flight information system is working properly. | | | | | | |

**User requirement #8**: Shall be able to browse the dining options, where they can check restaurants and their menus.

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| **Test Case ID:** Dining\_Information\_Functionality | **Test Designed By:** Mark Hallak |
| **Test Priority (Low/Medium/High):** Medium | **Test Designed Date:** 11/14/2023 |
| **Module Name:** Dining Options | **Test Executed By:** Mark Hallak |
| **Test Title:** Verify browsing functionality for restaurants and menus | **Test Execution Date:** 11/14/2023 |
| **Description:** Users shall be able to browse through dining options within the system and view detailed menus of the restaurants. |  |
|  | |
| **Pre-conditions:** Data for restaurants and menus is available; the user has a stable internet connection. | |
| **Dependencies:** A functional database system. | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Navigate to the ASM dining interface. | N/A | The ASM dining interface should be displayed. | The ASM interface loads correctly. | Pass |  |
| 2 | View the list of available restaurants. | N/A | A list of restaurants should be displayed. | A list of restaurants is displayed. | Pass |  |
| 3 | Select a restaurant to view its menu. | Restaurant Selection: Zaatar w Zeit | The menu for the selected restaurant should be displayed, including items and prices. | The menu for the selected restaurant is displayed, including items and prices. | Pass |  |
| 4 | Verify the details provided for each menu item. | N/A | Each menu item should include a description and price. | Each menu item includes a description and price. | Pass |  |
|  | | | | | | |
| **Post-conditions:** The dining information system is working properly. | | | | | | |

**User requirement #9**: Shall be redirected to a page with all the shops upon clicking on the “Shopping” option, where they shall be able to create an account or log in into an existing one to browse through shops and items. They shall be able to save them in a wish list, view the stock, and their prices.

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| **Test Case ID:** Shopping\_Functionality | **Test Designed By:** Mark Hallak |
| **Test Priority (Low/Medium/High):** Medium | **Test Designed Date:** 11/14/2023 |
| **Module Name:** Shopping Module | **Test Executed By:** Mark Hallak |
| **Test Title:** Verify shopping options including account creation/login, browsing, wish list functionality, stock, and price viewing | **Test Execution Date:** 11/14/2023 |
| **Description:** Upon clicking on the “Shopping” option, users shall be redirected to a page with all the shops. They should be able to create an account or log into an existing one, browse through shops and items, save items to a wish list, and view item stocks and prices. |  |
|  | |
| **Pre-conditions:** Data about shops and items is available; the user has a stable internet connection. | |
| **Dependencies:** A functional database system, wishlist system, and a user account system. | |

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| --- | --- | --- | --- | --- | --- | --- |
| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Navigate to the ASM shop interface. | N/A | The ASM shop interface should be displayed. | The ASM interface loads correctly. | Pass |  |
| 2 | Log into an existing account. | Valid user credentials | User should be logged into their account. | User is logged into their account. | Pass |  |
| 3 | Browse through the list of shops. | N/A | Shops should be listed. | Shops are listed and can be navigated. | Pass |  |
| 4 | Select a shop and view items. | Shop Selection: Zara | Items within the shop should be displayed with details. | Items within the shop are displayed with details. | Pass |  |
| 5 | Add items to the wish list. | Item selection: Unisex Handbag | Selected items should be added to the wish list. | Selected items are added to the wish list. | Pass |  |
| 6 | Check the stock for an item. | N/A | The current stock for the item should be displayed. | The current stock for the item is displayed. | Pass |  |
| 7 | View the wish list. | N/A | Items previously added to the wish list should be displayed. | Items previously added to the wish list are displayed. | Pass |  |
| 8 | Log out from the account. | N/A | User should be logged out. | User is logged out. | Pass |  |
| 9 | Navigate back to the item page. | N/A | User should be navigated back to the item page. | User is navigated back to the item page. | Pass |  |
| 10 | Add items to the wish list. | N/A | Selected items should be added to the wish list. | Selected items are not added to the wish list. | Fail |  |
|  | | | | | | |
| **Post-conditions:** The shopping system is working properly. | | | | | | |

**User requirement #10**: Shall have access to a flight booking option that redirects them to Skyscanner upon clicking on “search”, where users shall insert the origin, destination, return or one way, depart, and return (if it is two-way).

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| --- | --- |
| **Test Case ID:** Flight\_Booking \_Functionality | **Test Designed By:** Mark Hallak |
| **Test Priority (Low/Medium/High):** High | **Test Designed Date:** 11/14/2023 |
| **Module Name:** Flight Booking Redirect | **Test Executed By:** Mark Hallak |
| **Test Title:** Verify redirection to Skyscanner for flight booking | **Test Execution Date:** 11/14/2023 |
| **Description:** Users should be redirected to Skyscanner for flight booking when they click on the 'search' option in the flight booking module. |  |
|  | |
| **Pre-conditions:** The user has a stable internet connection; Integration with Skyscanner is set up and functional; Skyscanner website is online. | |
| **Dependencies:** None. | |

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| --- | --- | --- | --- | --- | --- | --- |
| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Navigate to the ASM home interface. | N/A | The ASM home interface should be displayed. | The ASM interface loads correctly. | Pass |  |
| 2 | Enter flight search criteria (e.g., destination, dates). | Destination: London, Date: 2023-03-21 | User inputs should be accepted and ready for search. | User inputs are accepted and ready for search. | Pass |  |
| 3 | Click on the 'search' option. | N/A | The system should be redirected the user to Skyscanner. | The system redirects the user to Skyscanner. | Pass |  |
| **Post-conditions:** The booking redirect system is working properly. | | | | | | |

**User requirement #10**: Shall have access to a flight booking option that redirects them to Skyscanner upon clicking on “search”, where users shall insert the origin, destination, return or one way, depart, and return (if it is two-way).

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| **Test Case ID:** Hotel\_Booking \_Functionality | **Test Designed By:** Mark Hallak |
| **Test Priority (Low/Medium/High):** High | **Test Designed Date:** 11/14/2023 |
| **Module Name:** Hotel Booking Redirect | **Test Executed By:** Mark Hallak |
| **Test Title:** Verify redirection to Booking.com for hotel booking | **Test Execution Date:** 11/14/2023 |
| **Description:** Users should be redirected to Booking.com with their specified search criteria (country, city, landmark, dates, bedrooms, adults, children) upon clicking 'search' in the hotel booking module. |  |
|  | |
| **Pre-conditions:** The user has a stable internet connection; Integration with Booking.com is set up and functional; Booking.com is online. | |
| **Dependencies:** None. | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Navigate to the ASM home interface. | N/A | The ASM home interface should be displayed. | The ASM interface loads correctly. | Pass |  |
| 2 | Input search criteria for hotel booking. | Country: France, City: Paris | User inputs should be accepted and ready for search. | User inputs are accepted and ready for search. | Pass |  |
| 3 | Click on the 'search' option. | N/A | The system should be redirected the user to Booking.com. | The system redirects the user to Booking.com. | Pass |  |
|  | | | | | | |
| **Post-conditions:** The hotel booking system is working properly. | | | | | | |

**User requirement #11**: Shall be able to see the different deals and promotions within the airport in the “Deals For You” section.

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| **Test Case ID:** Deals | **Test Designed By:** Mark Hallak |
| **Test Priority (Low/Medium/High):** Medium | **Test Designed Date:** 11/14/2023 |
| **Module Name:** Deals and Promotions Display | **Test Executed By:** Mark Hallak |
| **Test Title:** Verify display and accessibility of deals and promotions in the 'Deals For You' section | **Test Execution Date:** 11/14/2023 |
| **Description:** Users should be able to view various deals and promotions available within the airport in the 'Deals For You' section. |  |
|  | |
| **Pre-conditions:** Data about deals and promotions is available. | |
| **Dependencies:** A functional database system. | |

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| --- | --- | --- | --- | --- | --- | --- |
| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Navigate to the “Deals For You” section. | N/A | The 'Deals For You' section should be displayed with various deals and promotions. | The 'Deals For You' section is displayed with various deals and promotions. | Pass |  |
| 2 | Browse through the list of deals and promotions. | N/A | Deals and promotions should be listed and can be navigated. | Deals and promotions are listed and can be navigated. | Pass |  |
| 3 | Select a deal to view its details. | Deal selection: “10% sale on everything for 12 hours” | Detailed information about the selected deal should be displayed, including terms and conditions. | Detailed information about the selected deal is displayed, including terms and conditions. | Pass |  |
|  | | | | | | |
| **Post-conditions:** The deal information system is working properly. | | | | | | |

**User requirement #12**: Shall have access to a feedback button where they can rate the website up to 5 stars and leave comments

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| **Test Case ID:** Feedback | **Test Designed By:** Mark Hallak |
| **Test Priority (Low/Medium/High):** Medium | **Test Designed Date:** 11/14/2023 |
| **Module Name:** Feedback and Rating System | **Test Executed By:** Mark Hallak |
| **Test Title:** Verify functionality of the feedback button for rating and commenting | **Test Execution Date:** 11/14/2023 |
| **Description:** Users should be able to access a feedback button, rate the website up to 5 stars, and leave comments. |  |
|  | |
| **Pre-conditions:** Feedback system is integrated and operational on the website; User has a stable internet connection. | |
| **Dependencies:** A functional database system. | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Navigate to the “Contact Us” interface. | N/A | The “Contact Us” interface should be displayed. | The “Contact Us” interface is displayed. | Pass |  |
| 2 | Rate the website using the star rating system. | Star rating: 4 stars | Rating should be recorded as 4 stars. | Rating is recorded as 4 stars. | Pass |  |
| 3 | Leave a valid email. | Email: [jess@outlook.com](mailto:jess@outlook.com) | Email should be validated and accepted. | Email is validated and accepted. | Pass |  |
| 4 | Leave a comment in the feedback form. | Comment: "User-friendly interface and easy navigation." | Comment should be accepted satisfying the length requirements. | Comment is accepted. | Pass |  |
| 5 | Submit the feedback form. | N/A | Feedback should be submitted successfully. | Feedback is submitted successfully. | Pass |  |
|  | | | | | | |
| **Post-conditions:** The feedback submission system is working properly. | | | | | | |

**User requirement #13**: Shall have access to real-time information on the availability of parking slots to assist travelers. They shall also be able to calculate the cost of renting a spot by providing the time interval of the rental.

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| **Test Case ID:** Parking\_Functionality | **Test Designed By:** Mark Hallak |
| **Test Priority (Low/Medium/High):** High | **Test Designed Date:** 11/14/2023 |
| **Module Name:** Parking Slot Availability and Cost Calculation | **Test Executed By:** Mark Hallak |
| **Test Title:** Verify real-time parking slot availability and cost calculation functionality | **Test Execution Date:** 11/14/2023 |
| **Description:** Users should be able to view the availability of parking slots in real-time and calculate the rental cost based on the time interval. |  |
|  | |
| **Pre-conditions:** Parking information system is integrated with real-time data and cost calculation logic. | |
| **Dependencies:** A functional database system. | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Navigate to the parking interface. | N/A | The ASM parking interface should be displayed. | The ASM parking interface is displayed. | Pass |  |
| 2 | View the real-time availability of parking slots. | N/A | Current parking slot availability should be displayed and updated in real-time. | Current parking slot availability is displayed and updated in real-time. | Pass |  |
| 3 | Enter the rental time interval for cost calculation. | Time interval: Arrival at 10:00 AM, Departure at 4:00 PM | The time interval data should be validated and accepted. | The time interval data is validated and accepted. | Pass |  |
| 4 | Calculate the cost of renting a parking slot based on the provided time interval. | N/A | The system should calculate and display the cost for the specified time interval. | The system calculates and displays the cost for the specified time interval. | Pass |  |
| 5 | Test the cost calculation with various time intervals. | Time interval: Arrival at 9:00 AM, Departure at 8:00 AM | The system should calculate and display the cost for the specified time interval. | The system calculates and displays the cost for the specified time interval. | Pass |  |
|  | | | | | | |
| **Post-conditions:** The parking system is working properly. | | | | | | |

**Functional requirement #1:** ASM shall continuously retrieve and update real-time data about the arrivals for the flight’s airline, number, status, origin, schedule, and terminal.

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| **Test Case ID:** ArrivalInfofunctionalSystem | **Test Designed By:** Haneen albayoud |
| **Test Priority (Low/Medium/High):** High | **Test Designed Date:** 11/14/2023 |
| **Module Name:** Real-time Arrival Information Display | **Test Executed By:** Haneen albayoud |
| **Test Title:** Retrieve of real-time flight arrival information | **Test Execution Date:** 11/14/2023 |
| **Description:** Retrieve all required flight details for arrivals. |  |
|  | |
| **Pre-conditions:** User is an admin | |
| **Dependencies:** A working database and user interface | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Access the ASM system logs. | N/A | The ASM interface for arrival flights should be displayed. | The ASM log system loads correctly. | Pass |  |
| 2 | Confirm that the system retrieves valid airline name. | Airline: "MockAir" | Airline name "MockAir" should be retrieved from the respective field. | The airline name is retrieved correctly. | Pass |  |
| 3 | Confirm that the system retrieves valid airline name. | Airline: “MockAir2" | Airline name "MockAir2" should be retrieved from the respective field | The airline name was not retrieved. | Fail |  |
| 4 | Confirm that the system retrieves valid number. | Flight Number: "MA123" | Flight Number "MA123" should be retrieved from the respective field. | The flight number is retrieved correctly. | Pass |  |
| 5 | Confirm that the system retrieves valid origin country. | Origin Country: "Mockland" | Origin country "Mockland" should be retrieved from the respective field. | The origin country is retrieved correctly. | Pass |  |
| 6 | Confirm that the system retrieves valid scheduled time of arrival. | Scheduled Time: "14:00" | Scheduled time of arrival "14:00" should be retrieved from the respective field. | The scheduled time is retrieved correctly. | Pass |  |
| 7 | Confirm that the system retrieves valid terminal number. | Terminal: "1" | Terminal number "1" should be retrieved from the respective field. | The terminal number is retrieved correctly. | Pass |  |
|  | | | | | | |
| **Post-conditions:** The real-time flight information display is working correctly. | | | | | | |

**Functional requirement #2:** ASM shall continuously retrieve and update real-time data about the departures for the flight’s airline, number, status, destination, schedule, terminal, gate, and check-in row/door.ASM shall display this information for the user.

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| **Test Case ID:** DepartureInfofunctionalSystem | **Test Designed By:** Haneen albayoud |
| **Test Priority (Low/Medium/High):** High | **Test Designed Date:** 11/14/2023 |
| **Module Name:** Real-time Departure Information Display | **Test Executed By:** Haneen albayoud |
| **Test Title:** Retrieve of real-time flight departure information | **Test Execution Date:** 11/14/2023 |
| **Description:** Retrieve all required flight details for departure. |  |
|  | |
| **Pre-conditions:** User is an admin | |
| **Dependencies:** A working database and user interface | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Access the ASM system logs. | N/A | The ASM interface for arrival flights should be displayed. | The ASM log system loads correctly. | Pass |  |
| 2 | Confirm that the system retrieves valid airline name. | Airline: "MockAir" | Airline name "MockAir" should be retrieved from the respective field. | The airline name is retrieved correctly. | Pass |  |
| 3 | Confirm that the system retrieves valid number. | Flight Number: "MA123" | Flight Number "MA123" should be retrieved from the respective field. | The flight number was not retrieved correctly. | Fail |  |
| 4 | Confirm that the system retrieves valid destination country. | destination Country: "Mockland" | Destination country "Mockland" should be retrieved from the respective field. | The destination country is retrieved correctly. | Pass |  |
| 5 | Confirm that the system retrieves valid scheduled time of departure. | Scheduled Time: "14:00" | Scheduled time of departure "14:00" should be retrieved from the respective field. | The scheduled time is retrieved correctly. | Pass |  |
| 6 | Confirm that the system retrieves valid terminal number. | Terminal: "1" | Terminal number "1" should be retrieved from the respective field. | The terminal number is retrieved correctly. | Pass |  |
|  | | | | | | |
| **Post-conditions:** The real-time flight information display is working correctly. | | | | | | |

**Functional requirements #3:** ASM shall continuously retrieve and update real-time data about the airport’s weather.ASM shall broadcast this information to the user.

|  |  |
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| **Test Case ID:** WeatherfunctionalInfoSystem\_1 | **Test Designed By:** Haneen albayoud |
| **Test Priority (Low/Medium/High):** High | **Test Designed Date:** 11/14/2023 |
| **Module Name:** Real-time Weather Information Display | **Test Executed By:** Haneen albayoud |
| **Test Title:** Verify display of real-time weather information | **Test Execution Date:** 11/14/2023 |
| **Description:** Validate that the ASM system displays all the weather information for different airports. |  |
|  | |
| **Pre-conditions:** User has a stable internet connection and weather data is available. | |
| **Dependencies:** None | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Open the ASM logs for weather information. | N/A | The ASM logs for weather information should be retrieved | The ASM log system loads correctly. | Pass |  |
| 2 | Update and retrieve the humidity percentage. | Humidity: 65% | The humidity percentage should be retrieved. | The humidity percentage is updated and retrieved correctly. | Pass |  |
| 3 | Update and retrieve the temperature. | Temperature: 26o | Temperature should be retrieved. | The temperature is updated and retrieved correctly. | Pass |  |
| 4 | Update and retrieve the wind speed. | Wind speed: 8 km/h | Wind speed should be retrieved | The wind speed is updated and retrieved correctly. | Pass |  |
| 5 | Update and retrieve the UV Index. | UV Index: 2 | UV Index should be retrieved. | The UV Index is updated and retrieved correctly. | Pass |  |
|  | | | | | | |
| **Post-conditions:** The real-time weather information is working correctly. | | | | | | |

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| **Test Case ID:** WeatherInfoSystem\_2 | **Test Designed By:** Haneen albayoud |
| **Test Priority (Low/Medium/High):** High | **Test Designed Date:** 11/14/2023 |
| **Module Name:** Real-time Weather Information Display | **Test Executed By:** Haneen albayoud |
| **Test Title:** Verify the real-time update of the weather information | **Test Execution Date:** 11/14/2023 |
| **Description:** Validate that the ASM system updates and displays the weather information in real-time. |  |
|  | |
| **Pre-conditions:** User has a stable internet connection and weather data is available. | |
| **Dependencies:** None | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Open the ASM logs for weather information. | N/A | The ASM logs for weather information should be retrieved | The ASM log system loads correctly. | Pass |  |
| 2 | The airport receives the latest weather information and updates the wind speed. | Wind speed: 12 km/h | The wind speed should be changed to 12 km/h without manually refreshing the page. | The wind speed is changed and the new speed is displayed automatically. | Pass |  |
| 3 | The airport receives the latest weather information and updates the Temperature | Temperature:  27 C | The temperature should be changed to 27 C without manually refreshing the page | The temperature did not change | Fail |  |
|  | | | | | | |
| **Post-conditions:** The wind speed was changed and the system automatically updated the weather information display interface and the database with the new information. | | | | | | |

**Functional requirement #4:** ASM shall display a search parameter where the user can fill in the flight number, airline, or the city.ASM shall also display two dropdown lists, one for the date (enables them to pick between 3 days starting the current date), and another one for the timings (all timings from 00:00 till 23:59 in 2 hours intervals).ASM shall filter the flights information that match the user’s search and display it.

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| **Test Case ID:** FlightSearchfunctionalSystem | **Test Designed By:** Haneen albayoud |
| **Test Priority (Low/Medium/High):** High | **Test Designed Date:** 11/14/2023 |
| **Module Name:** Flight Search Parameter | **Test Executed By:** Haneen albayoud |
| **Test Title:** Testing the functionality of the Flight search | **Test Execution Date:** 11/14/2023 |
| **Description:** Checking the functionality of the flight search parameter. |  |
|  | |
| **Pre-conditions:** User is an admin | |
| **Dependencies:** A working database and user interface | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Access the ASM system logs. | N/A | The ASM logs should be retrieved and displayed. | The ASM log system loads correctly. | Pass |  |
| 2 | Verify the presence of the search parameter. | N/A | The search parameter is retrieved and updated. | The search parameter is retrieved and displayed on the interface. | Pass |  |
| 3 | Test the search parameter functionality. | Search Flight Number: "MA123" | The system accepts input and initiates searches accordingly. | The flight number is retrieved correctly. | Pass |  |
|  | Test the search parameter functionality. | Search  “MN234” | The system accepts input and initiates searches accordingly. | The flight number was not retrieved correctly. | Fail |  |
| 4 | Test for an empty search. | Search Country: "" | The system should handle an empty search gracefully, providing appropriate feedback or defaulting to a broader search. | The system provided a broader search results. | Pass |  |

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| 5 | Verify the presence of the date dropdown list. | N/A | The timings dropdown list is retrieved and displayed on the interface. | The timings are displayed correctly. | Pass |  |
| 6 | Test date selection functionality. | Open the date dropdown list and select a date = “June 10” | The selected date should be retrieved and updated in the date field. | The selected date is displayed correctly. | Pass |  |
| 7 | Test timings selection functionality. | Open the timings dropdown list and select a timing = “10:00 am” | The selected time should be retrieved and updated in the timings field. | The selected timing is displayed correctly. | Pass |  |
| 8 | Test search with no matching results. | Country “B” | The system should provide a clear indication that theres no country “B” in the flights info | The system provides all the flights available instead of giving “no results found” | Fail |  |
| 9 | Test search and filter functionality. | Enter country “A”, select timing “10 am” and date “June 10” | The system filters the flight information based on the user's criteria and displays the relevant results. | The system provides flights which were destined to country A on June 10 at 10 am | Pass |  |
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| **Post-conditions:** The search parameter is working correctly. | | | | | | |

**Functional requirement #5:** ASM shall allow the user to track and follow a specific flight. ASM shall ask for the user’s email address upon their request to track a flight. ASM shall retrieve any changes or updates on that flight and send them to the user’s email. ASM shall also send reminders of the flight’s schedule to passengers.

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| **Test Case ID:** FlightTrackingfunctionalSystem | **Test Designed By:** Haneen albayoud |
| **Test Priority (Low/Medium/High):** High | **Test Designed Date:** 11/14/2023 |
| **Module Name:** Flight Tracking | **Test Executed By:** Haneen albayoud |
| **Test Title:** Testing the functionality of flight tracking | **Test Execution Date:** 11/14/2023 |
| **Description:** Checking the functionality of the flight tracking. |  |
|  | |
| **Pre-conditions:** User is an admin | |
| **Dependencies:** A working database and user interface | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Access the ASM system logs. | N/A | The ASM logs should be retrieved and displayed. | The ASM log system loads correctly. | Pass |  |
| 2 | Initiate the process to track a specific flight. | Flight number “MK234” | The ASM system shall allow the user to start tracking the specified flight. | The system allowed the user to track flight “MK234” successfully. | Pass |  |
| 3 | Introduce changes or updates to the flight in the backend.  Monitor the user's email for updates. | Flight date “June 10” was modified to “June 11” | The ASM system retrieves changes and sends updates to the user's email. | Flight changes were sent to the users email. | Pass |  |
| 4 | Sending Reminders of Flight Schedule | Flight details | The ASM system shall send reminders of the flight's schedule to the user's email. | Reminders of the flights schedule were sent to the users email | Pass |  |
| 5 | Provide invalid or incorrect flight details. | Invalid flight details | The ASM system should provide an error message and not allow tracking with invalid details. | The ASM system tracks using the invalid data. | Fail |  |
| 6 | Opt to unsubscribe or stop tracking the flight. | N/A | The ASM system stops sending updates and reminders after the user unsubscribes. | No updates and reminders are sent after unsubscribing | Pass |  |
|  | | | | | | |
| **Post-conditions:** The Flight tracking functionality is working correctly. | | | | | | |

**Functional requirement #6:** ASM shall display and provide multi language support.

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| **Test Case ID:** | **Test Designed By:** Sarah Sleiman |
| **Test Priority (Low/Medium/High):** low | **Test Designed Date:** 16/11/2023 |
| **Module Name:** ASM multi-language support | **Test Executed By:** Sarah Sleiman |
| **Test Title:** multi language test | **Test Execution Date:** 16/11/2023 |
| **Description:** this test aims to check if the multilanguage support in ASM is functional |  |
|  | |
| **Pre-conditions:** ASM shall be in its default language (English) | |
| **Dependencies:** | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | English default language | N/A | When opening ASM the information shall be displayed in English. | English is the default language and information is displayed in English | Pass |  |
| 2 | Change language to Arabic | N/A | Display of information in Arabic | Information changed from English to Arabic | Pass |  |
| 3 | Change to Spanish | N/A | Display of information in Spanish | Information changed from Arabic to Spanish | Pass |  |
| 4 | Change language to French | N/A | Display of information in French | Information changed from Spanish to French | Pass |  |
| 5 | Change language to Russian | N/A | Display of information in Russian | Information changed from French to Russian | Pass |  |
| 6 | Change language to Mandarin | N/A | Display of information in Mandarin | Information changed from Russian to Mandarin | Pass |  |
| 7 | Change language to Hindi | N/A | Display of information in Hindi | Information changed from Mandaring to Hindi | Pass |  |
|  | | | | | | |
| **Post-conditions:** user can view ASM information in the selected language | | | | | | |

**Functional requirement #7:** ASM shall retrieve and display in-flight information, entertainment options and meal services, for each flight.

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| **Test Case ID:** | **Test Designed By:** Sarah Sleiman |
| **Test Priority (Low/Medium/High):** medium | **Test Designed Date:** 16/11/2023 |
| **Module Name:** ASM in-flight information | **Test Executed By:** Sarah Sleiman |
| **Test Title:** display of in-flight information | **Test Execution Date:** 16/11/2023 |
| **Description:** this test aims to test if ASM can display in-flight information. |  |
|  | |
| **Pre-conditions:** availability of information from the respective airline | |
| **Dependencies:** none | |

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| --- | --- | --- | --- | --- | --- | --- |
| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Selecting flight with available information | N/A | ASM should display the flight that has the available information | ASM successfully shows the flight with the information | Pass |  |
| 2 | Checking in-flight entertainment options | “Wi-Fi is available” | ASM should display the availability of Wi-Fi | ASM displays “No entertainment options” instead. | Fail |  |
| 2 | Checking in-flight entertainment options | “Wi-Fi is available” | ASM shall display the availability of Wi-Fi | ASM successfully displays “Wi-Fi is available” | Pass |  |
| 3 | Checking meal services. | “Rice and chicken” | ASM should display rice and chicken as a meal service. | ASM successfully displays “Rice and chicken” | Pass |  |
|  | | | | | | |
| **Post-conditions:** ASM can display information regarding entertainment and meal services. | | | | | | |

**Functional requirement #8:** ASM shall retrieve and display names of the restaurants and cafes with their menu and pictures of items.

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| **Test Case ID:** | **Test Designed By:** Sarah Sleiman |
| **Test Priority (Low/Medium/High):** low | **Test Designed Date:** 16/11/2023 |
| **Module Name:** dining options | **Test Executed By:** Sarah Sleiman |
| **Test Title:** testing retrieval of dining options | **Test Execution Date:** 16/11/2023 |
| **Description:** validate ASM retrieval and display of restaurant and café menu with pictures |  |
|  | |
| **Pre-conditions:** availability of restaurants and cafes | |
| **Dependencies:** | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Retrieval and display of restaurants and cafes | Names and of restaurants and cafés: testcaf1, testcaf2, Dolores restaurant1 | ASM should retrieve and display names of restaurants and cafes | Successful retrieval and display of the names | Pass |  |
| 2 | Retrieval and display of restaurant and café’s menus | Menus of Dolores restaurant 1 | ASM should retrieve the menu and display it | Successful retrieval and display of menu of restaurants | Pass |  |
| 3 | Retrieval and display of restaurant and café’s pictures of items | Pictures of Dolores restaurant 1 items | ASM should retrieve and display pictures of the items of the restaurant | Successful retrieval and display of pictures of the items of Dolores restaurant 1 | Pass |  |
|  | | | | | | |
| **Post-conditions:** dining options are retrieved and displayed successfully | | | | | | |

**Functional requirement #9:**  ASM shall redirect the users to the duty-free shop providing registration options for account creation and login option for old users, all shops shall be retrieved and displayed. Users shall be provided with a wish list, and they shall search for products.

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| **Test Case ID:** | **Test Designed By:** Sarah Sleiman |
| **Test Priority (Low/Medium/High):** high | **Test Designed Date:** 16/11/2023 |
| **Module Name:** duty free shop | **Test Executed By:** Sarah Sleiman |
| **Test Title:** retrieving and logging | **Test Execution Date:** 16/11/2023 |
| **Description:** Validate shops retrieval with their corresponding items |  |
|  | |
| **Pre-conditions:** a data base including all duty-free shops shall be available for use | |
| **Dependencies:** | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Redirecting to the duty-free shop page | Duty-free shop CV-Test data base | The page should redirect to the duty-free shop | The page successfully redirected | Pass |  |
| 2 | Registration and logging in using an account | N/A | Login information validated by the registration should allow for logging in | Logged in successfully | Pass |  |
| 3 | Retrieval and display of shops | N/A | ASM should retrieve the information about the shops and display them | ASM retrieved and displayed shops | Pass |  |
| 4 | Retrieval and display of shop items | Information from shop CV-Test | Items and their prices from the shop should be retrieved and displayed | ASM failed to display prices | Fail |  |
| 5 | Provide wish list functionality | N/A | ASM should show a wish list button that adds items to the list | Success in adding items to the wish list | Pass |  |
| 6 | Display a search bar that returns corresponding information | N/A | Searching using specific criteria should return related information | Items searched for were found | Pass |  |
|  | | | | | | |
| **Post-conditions:** information retrieval, and display proved to be successful | | | | | | |

**Functional requirement #10:** ASM shall provide the option of booking flights, filling the corresponding data, returning the date option when necessary, and redirecting the user to the designated area to find the suitable tickets

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| **Test Case ID:** | **Test Designed By:** Sarah Sleiman |
| **Test Priority (Low/Medium/High):** high | **Test Designed Date:** 16/11/2023 |
| **Module Name:** flight booking | **Test Executed By:** Sarah Sleiman |
| **Test Title:** searching and returning flights | **Test Execution Date:** 16/11/2023 |
| **Description:** validate flight booking |  |
|  | |
| **Pre-conditions:** none | |
| **Dependencies:** | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Provide option to fill in flight information | N/A | ASM should provide a search option for flights | ASM successfully displays data corresponding to the flight search | Pass |  |
| 2 | Filling information | Origin country mock land  Destination  The other place land | ASM should allow the input of mock land and destination the other place land | Successfully inputting the data | Pass |  |
| 3 | Redirecting to corresponding date | Two-way ticket | ASM should display the date for the return for a two-way ticket | Successfully redirected | Pass |  |
| 4 | Redirecting to Skyscanner | N/A | ASM should redirect to the Skyscanner to load corresponding flights | ASM didn’t redirect | Fail |  |
| 5 | Test the return parameter | User picks one way ticket | ASM should not let the user look for the return ticket. | Return ticket parameter is successfully disabled | Pass |  |
| 6 | Test the return parameter (2) | User picks two-way ticket | ASM should let the user look for the return ticket | Return ticket parameter is successfully enabled. |  |  |
|  | | | | | | |
| **Post-conditions:** ASM proves successful in finding flights but not in redirecting to actually buy tickets | | | | | | |

**Functional requirement #11:** ASM shall provide the user with the option to fill in hotel information to facilitate booking.

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| **Test Case ID:** HotelBookingSystem | **Test Designed By:** Abdullah Lababidi |
| **Test Priority (Low/Medium/High):** Medium | **Test Designed Date:** 11/16/2023 |
| **Module Name:** Hotel Booking | **Test Executed By:** Abdullah Lababidi |
| **Test Title:** Hotel Booking Functionality | **Test Execution Date:** 11/16/2023 |
| **Description:** Validate the hotel booking functionality |  |
|  | |
| **Pre-conditions:** User is on the hotel booking page. | |
| **Dependencies:** Internet connection, Booking.com integration. | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Fill in hotel information. | - Country: "United States" - City/Landmark: "New York" - Check-in Date: [Current Date + 1] - Check-out Date: [Current Date + 5] - Number of Bedrooms: 2 - Adults: 2 - Children: 1 | The user should be able to input the hotel details successfully. | The information is accepted, and the user proceeds to the next step. | Pass |  |
| 2 | Submit the booking request. | N/A | ASM shall redirect the user to Booking.com. | The user is redirected to Booking.com with the entered parameters. | Pass |  |
| 3 | Verify hotels loaded on Booking.com. | N/A | Booking.com should display hotels in New York with available options for 2 bedrooms, 2 adults, and 1 child for the specified dates. | Hotels matching the criteria are displayed on Booking.com. | Pass |  |
| 4 | Fill in incomplete information. | - Country: (Not provided) - City/Landmark: "London" - Check-in Date: [Current Date + 2] - Check-out Date: [Current Date + 7] - Number of Bedrooms: 1 - Adults: 1 - Children: 0 | ASM should display an error message indicating that the country information is missing. | An appropriate error message is shown. | Pass |  |
| 5 | Provide an invalid date range. | - Country: "France" - City/Landmark: "Paris" - Check-in Date: [Current Date + 10] - Check-out Date: [Current Date + 5] - Number of Bedrooms: 1 - Adults: 2 - Children: 0 | ASM should display an error message indicating that the check-out date should be after the check-in date. | An appropriate error message is shown. | Pass |  |
| 6 | Book with zero adults. | - Country: "Canada" - City/Landmark: "Vancouver" - Check-in Date: [Current Date + 3] - Check-out Date: [Current Date + 6] - Number of Bedrooms: 1 - Adults: 0 - Children: 1 | ASM should display an error message indicating that at least one adult must be specified. | An appropriate error message is shown. | Pass |  |
| 7 | Book with default values. | N/A | ASM should redirect the user to Booking.com with default values (e.g., country: Any, city: Any, dates: current date for one night, bedrooms: 1, adults: 1, children: 0). | The user is redirected with default values. | Pass |  |
|  | | | | | | |
| **Post-conditions:** Hotel booking functionality in ASM is working correctly. | | | | | | |

**Functional requirement #12:** ASM shall offer a currency converter where travellers can convert their own currency into the country’s own.

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| **Test Case ID:** CurrencyConverterFunctionality | | | | **Test Designed By:** Abdullah Lababidi | | |
| **Test Priority (Low/Medium/High):** Medium | | | | **Test Designed Date:** 11/16/2023 | | |
| **Module Name:** Currency Converter | | | | **Test Executed By:** Abdullah Lababidi | | |
| **Test Title:** Converting Currency | | | | **Test Execution Date:** 11/16/2023 | | |
| **Description:** Validate the functionality of the ASM Currency Converter, ensuring users can convert their own currency into the country's currency, and the system provides accurate calculations and displays the result. | | | |  | | |
|  | | | |  | | |
| **Pre-conditions:** User is on the Currency Converter page. | | | | | | |
| **Dependencies:** Internet connection, Integration with currency exchange data source. | | | | | | |
|  | | | | | | |
| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Access the Currency Converter in ASM. | N/A | The Currency Converter interface should be displayed. | The Currency Converter interface loads correctly. | Pass |  |
| 2 | Enter the amount and select currencies for conversion. | - From Currency: LBP - To Currency: USD - Amount: 100 | The system should accept the input values. | The entered values are accepted, and the user proceeds to the next step. | Pass |  |
| 3 | Initiate the currency conversion. | N/A | ASM shall perform appropriate calculations for the currency conversion. | The system performs the currency conversion accurately. | Pass |  |
| 4 | Verify the displayed result. | N/A | The result of the currency conversion (in USD) should be displayed to the user. | The converted amount is displayed correctly. | Pass |  |
| 5 | Change the currencies for conversion. | - From Currency: EUR - To Currency: YEN - Amount: 50 | The system should accept the new input values. | The entered values are accepted, and the user proceeds to the next step. | Pass |  |
| 6 | Initiate the currency conversion. | N/A | ASM shall perform appropriate calculations for the currency conversion. | The system performs the currency conversion accurately. | Pass |  |
| 7 | Verify the displayed result. | N/A | The result of the currency conversion (in YEN) should be displayed to the user. | The converted amount is displayed correctly. | Pass |  |
|  | | | | | | |
| **Post-conditions:** Currency conversion functionality in ASM is working correctly. | | | | | | |

**Functional requirements #13:** ASM shall display the deals of all shops and restaurants within the airport for user’s convenience.

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| **Test Case ID:** DealsDisplayAndDetails | **Test Designed By:** Abdullah Lababidi |
| **Test Priority (Low/Medium/High):** High | **Test Designed Date:** 11/16/2023 |
| **Module Name:** Deals | **Test Executed By:** Abdullah Lababidi |
| **Test Title:** Showing Deals | **Test Execution Date:** 11/16/2023 |
| **Description:** Validate the functionality of the ASM Deals, ensuring that deals of all shops and restaurants within the airport are displayed, and users can click on a deal to view more information and its expiration date. |  |
|  | |
| **Pre-conditions:** User has a stable internet connection and weather data is available. | |
| **Dependencies:** None | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Access the Deals section in ASM. | N/A | The Deals interface should be displayed, showing a list of deals from shops and restaurants. | The Deals interface loads correctly. | Pass |  |
| 2 | Click on a deal to view more information. | - Selected Deal: "Shop A - 20% off on Electronics" | ASM should display detailed information about the selected deal, including the discount and expiration date. | Detailed information about the deal is shown to the user. | Pass |  |
| 3 | Verify the displayed deal information. | N/A | The details should include the name of the shop/restaurant, the discount or offer, and the expiration date. | The displayed information isn’t accurate and matches the deal details. | Fail | Need to fix correct displaying of information |
| 4 | Click on another deal to view its details. | - Selected Deal: "Restaurant B - Buy One Get One Free on Main Course" | ASM should display detailed information about the newly selected deal. | Detailed information about the deal is shown to the user. | Pass |  |
| 5 | Verify the displayed deal information. | N/A | The details should include the name of the shop/restaurant, the specific offer, and the expiration date. | The displayed information is accurate and matches the deal details. | Pass |  |
| 6 | Check for deals without expiration dates. | N/A | Some deals may not have an expiration date. | Deals without expiration dates are displayed appropriately. | Pass |  |
|  | | | | | | |
| **Post-conditions:** Deals functionality in ASM is working correctly. | | | | | | |

**Functional requirement #14:** ASM shall provide a feedback mechanism, requiring users to submit their email addresses for a single vote, enabling ratings over 5 stars and allowing the inclusion of comments

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| **Test Case ID:** FeedbackFunctionality. | **Test Designed By:** Abdullah Lababidi |
| **Test Priority (Low/Medium/High):** Medium | **Test Designed Date:** 11/16/2023 |
| **Module Name:** Feedback | **Test Executed By:** Abdullah Lababidi |
| **Test Title:** Testing the functionality of the Feedback | **Test Execution Date:** 11/16/2023 |
| **Description:** Validate the functionality of the ASM Feedback, ensuring that users can provide feedback through a dedicated button, require an email address for feedback submission, restrict users to vote only once, and allow users to rate over 5 stars and leave comments |  |
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| **Pre-conditions:** User is on the Feedback page | |
| **Dependencies:** Internet connection, Integration with feedback system | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Access the Feedback section in ASM. | N/A | The Feedback interface should be displayed, featuring a feedback button. | The Feedback interface loads correctly. | Pass |  |
| 2 | Click on the feedback button. | N/A | ASM shall prompt the user to provide their email address. | The user is prompted to enter their email address. | Pass |  |
| 3 | Enter a valid email address. | - Email Address: "user@example.com" | ASM should accept the email address for feedback submission. | The email address is accepted, and the user proceeds to the next step. | Pass |  |
| 4 | Provide feedback by rating over 5 stars and leaving comments. | - Rating: 5 stars - Comments: "Great experience!" | ASM shall allow users to rate over 5 stars and leave comments. | The user successfully rates over 5 stars and leaves comments. | Pass |  |
| 5 | Submit the feedback. | N/A | ASM shall register the feedback and restrict the email from voting again. | The feedback is successfully submitted, and the email should be restricted from voting again. | Pass |  |
| 6 | Attempt to submit feedback with the same email again. | - Email Address: "user@example.com" | ASM should display a message indicating that the email has already provided feedback. | The email address is accepted, and the user proceeds to the next step. | Fail | Need to fix only one submission for each email |
| 7 | Verify the recorded feedback details. | N/A | The recorded feedback details should include the email, rating, and comments. | The recorded details match the provided feedback. | Pass |  |
|  | | | | | | |
| **Post-conditions:** Feedback functionality in ASM is working correctly. | | | | | | |

**Functional requirement #15:** ASM shall provide real-time display of available parking spots detected by sensors, allowing users to calculate and book a spot by specifying a rental time interval, with the system subsequently calculating and displaying the total rent cost.

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| **Test Case ID:** ParkingSpotFunctionality. | **Test Designed By:** Abdullah Lababidi |
| **Test Priority (Low/Medium/High):** Medium | **Test Designed Date:** 11/16/2023 |
| **Module Name:** Parking Spots | **Test Executed By:** Abdullah Lababidi |
| **Test Title:** Parking Spots Test | **Test Execution Date:** 11/16/2023 |
| **Description:** Validate the functionality of the ASM Parking Spots, ensuring that the system displays remaining parking spots in real-time, provides an option for users to calculate parking rent, requires users to input rental time interval, and calculates and displays the total rent cost. |  |
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| **Pre-conditions:** User is on the Parking Spots page. | |
| **Dependencies:** Internet connection, Integration with parking sensors and payment system. | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Access the Parking Spots section in ASM. | N/A | The Parking Spots interface should be displayed, featuring real-time information on remaining parking spots. | The Parking Spots interface loads correctly. | Pass |  |
| 2 | Choose the option to calculate a parking spot. | N/A | ASM shall prompt the user to fill in the time interval for rental. | The user is prompted to input the rental time interval. | Pass |  |
| 3 | Fill in the rental time interval. | - From: [11/16/2023, 10:00 AM] - To: [11/16/2023, 5:00 PM] | ASM should accept the time interval for parking rental calculation. | The time interval is accepted, and the user proceeds to the next step. | Pass |  |
| 4 | Initiate the parking spot calculation. | N/A | The displayed total rent cost is accurate.ASM shall calculate the total rent cost based on the provided time interval. | The system performs the calculation accurately. | Pass |  |
| 5 | Verify the displayed total rent cost. | N/A | The total rent cost for the specified time interval should be displayed to the user. | The displayed total rent cost isn’t accurate. | Fail | Need to fix displaying cost |
| 6 | Attempt to calculate parking without specifying the time interval. | - From: [Not provided] - To: [Not provided] | ASM should display an error message indicating that the time interval is required. | An appropriate error message is shown. | Pass |  |
| 7 | Check for real-time updates on remaining parking spots. | N/A | The system should continuously update and display real-time information on remaining parking spots. | Real-time updates on parking spots aren’t displayed correctly. | Fail | Need to fix Real-time update issue |
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| **Post-conditions:** Parking spot functionality in ASM is working correctly. | | | | | | |

**Non-functional requirement #1:** Performance

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| **Test Case ID:** Performance\_ASM | **Test Designed By:** Lea Oleyk |
| **Test Priority (Low/Medium/High):** High | **Test Designed Date:** 11/15/2023 |
| **Module Name:** Performance testing | **Test Executed By:** Lea Oleyk |
| **Test Title:** Verify ASM performance and response time | **Test Execution Date:** 11/15/2023 |
| **Description:** Validate that ASM can support a minimum of 1000 simultaneous users without a decrease in performance and has a response time of less than 1 second. |  |
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| **Pre-conditions:** ASM is deployed and running, the Network conditions are stable, and Data updates from external sources are available. | |
| **Dependencies:** Database connectivity for real-time data updates. | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Simultaneously open ASM website with 1000 users | N/A | ASM website should open without a decrease in performance. | ASM website opens without performance degradation. | Pass |  |
| 2 | Navigate through various sections of the ASM website. | N/A | Response time for displaying information on the website should be less than one second. | Response time is less than 1 second. | Pass |  |
| 3 | Perform continuous updates of data from external sources in real time. | N/A | ASM should handle and process updates without a decrease in performance. | ASM successfully handles and processes real-time data updates without issues. | Pass |  |
| 4 | Monitor system resource utilization during peak usage | CPU and memory usage | CPU usage should not exceed 60%, and memory shouldn’t exceed 80%. | CPU usage doesn’t exceed 60% and memory doesn’t exceed 80%. | Pass |  |
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| **Post-conditions:** ASM meets performance requirements under simultaneous user load and real-time data updates. | | | | | | |

**Non-functional requirement #2:** Scalability

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| **Test Case ID:** Scalability\_ASM | **Test Designed By:** Lea Oleyk |
| **Test Priority (Low/Medium/High):** High | **Test Designed Date:** 11/15/2023 |
| **Module Name:** Scalability testing | **Test Executed By:** Lea Oleyk |
| **Test Title:** Verify ASM scalability under increased user traffic | **Test Execution Date:** 11/15/2023 |
| **Description:** Validate that the ASM can scale vertically to support increased user traffic of a minimum of 2000 concurrent visits while maintaining optimal performance |  |
|  | |
| **Pre-conditions:** ASM is deployed and operational, and the Network conditions are stable. | |
| **Dependencies:** None | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Increase user traffic to 2000 concurrent visits. | N/A | ASM should support the 2000 concurrent visits without performance issues. | ASM successfully supports 2000 concurrent visits without performance issues. | Pass |  |
| 2 | Increase user traffic to 3000 concurrent visits | N/A | ASN should support the 3000 concurrent visits with minor performance issues. | ASM successfully supports 3000 concurrent visits with minor performance issues. | Pass |  |
|  | | | | | | |
| **Post-conditions:** ASM successfully scales vertically to support increased user traffic | | | | | | |

**Non-functional requirement #3:** Reliability

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| **Test Case ID:** Reliability\_ASM | **Test Designed By:** Lea Oleyk |
| **Test Priority (Low/Medium/High):** High | **Test Designed Date:** 11/15/2023 |
| **Module Name:** Reliability testing | **Test Executed By:** Lea Oleyk |
| **Test Title:** Verify ASM reliability features. | **Test Execution Date:** 11/15/2023 |
| **Description:** Validate that the ASM system maintains high reliability with an uptime of 99.9%, communicate planned maintenance in advance, and ensures reliable backup, disaster recovery, and redundancy in case of failure. |  |
|  | |
| **Pre-conditions:** ASM system is deployed and operational and Network conditions are stable. | |
| **Dependencies:** None | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Monitor ASM system uptime for 30 days. (43,200 min) | N/A | ASM system should have an uptime of 99.9%. | Uptime is 25,000 minutes. | Fail | The server is down a lot. |
| 1 | Monitor ASM system uptime for 30 days. (43,200 min) | N/A | ASM system should have an uptime of 99.9%. | Uptime is 43,156.8 minutes. | Pass |  |
| 2 | Verify advanced communication of planned maintenance. | “Maintenance on the 1st of November at 12:00 am” | Users should be informed of planned maintenance in advance. | Users are notified of planned maintenance in advance. | Pass |  |
| 3 | Test local backup and restoration features | Intentionally delete flight number “MA123” info | ASM should have a locally stored backup that can restore “MA123”’s info | The system successfully restores “MA123” data | Pass |  |
| 4 | Test remote backup and restoration features | Intentionally corrupt flight data for “MA123” | ASM should have a remote backup that can restore the corrupted “MA123” data. | The system successfully restores “MA123” data from the remote backup. | Pass |  |
| 5 | Test backup server in case of failure | Disconnect the primary server for “MA123” | ASM should seamlessly switch to a backup server | The system successfully switches to the backup server without data loss | Pass |  |
|  | | | | | | |
| **Post-conditions:** ASM maintains high reliability, including 99% uptime, communication of planned maintenance, reliable local and remote backup, disaster recovery, and redundancy in case of failures. | | | | | | |

**Non-functional requirement #4:** Security

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| **Test Case ID:** Security\_ASM | **Test Designed By:** Lea Oleyk |
| **Test Priority (Low/Medium/High):** High | **Test Designed Date:** 11/15/2023 |
| **Module Name:** Verify ASM security | **Test Executed By:** Lea Oleyk |
| **Test Title:** Validate ASM security measures. | **Test Execution Date:** 11/15/2023 |
| **Description:** Verify that ASM implements security measures, including the encryption, exchange, transmission, and secure storage for user data. |  |
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| **Pre-conditions:** ASM system is operational. User data is available for testing. | |
| **Dependencies:** Database | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Test AES encryption for various user email | Email: mock@hotmail.com | The email should be encrypted using AES with a 256-bit key. | The system successfully encrypts mock@hotmail.com | Pass |  |
| 2 | Test SHA encryption for user passwords | Pass:  Mock.123 | The password should be encrypted using SHA-512. | The system successfully encrypts Mock.123 | Pass |  |
| 3 | TLS 1.3 encryption for secure internet data transmission | N/A | Data transmission should be secured through TLS 1.3 encryption. | Secure internet data transmission | Pass |  |
| 4 | ECDHE\_RSA for secure key exchange | N/A | Key exchange should be secured through ECDHE\_RSA | Secure key exchange. | Pass |  |
|  | | | | | | |
| **Post-conditions:** ASM successfully implements security measures which ensures confidentiality, and integrity. | | | | | | |

**Non-functional requirement #5:** Usability

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| **Test Case ID:** Usability\_ASM | **Test Designed By:** Lea Oleyk |
| **Test Priority (Low/Medium/High):** Medium | **Test Designed Date:** 11/15/2023 |
| **Module Name:** Usability testing | **Test Executed By:** Lea Oleyk |
| **Test Title:** Evaluate Website Usability | **Test Execution Date:** 11/15/2023 |
| **Description:** Assess the usability of the ASM website to ensure it is user-friendly, with efficient and easy-to-learn navigation. |  |
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| **Pre-conditions:** | |
| **Dependencies:** None | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Remote Error rate testing | Error rate of people completing the test through Maze platform | The error rate should not exceed 10% | The error rate is 12% | Fail | This means that the interface is not that clear so users keep making mistakes |
| 1 | Remote Error rate testing | Error rate of people completing the test through Maze platform | The error rate should not exceed 10% | The error rate is 8% | Pass |  |
| 2 | Test the time users take to complete main actions | Time of completion through Maze platform | The time of completion should not exceed 15 seconds | The time of completion is 1 minute | Fail | This means that the user is confused because the interface is not that organized |
| 2 | Test the time users take to complete main actions | Time of completion through Maze platform | The time of completion should not exceed 15 seconds | The time of completion is 3 seconds | Pass |  |
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| **Post-conditions:** ASM website maintains a user-friendly design with efficient learnability. | | | | | | |

**Non-functional requirement #6:** Compatibility

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| **Test Case ID:** Compatibility\_ASM | **Test Designed By:** Lea Oleyk |
| **Test Priority (Low/Medium/High):** Medium | **Test Designed Date:** 11/16/2023 |
| **Module Name:** Compatibility testing | **Test Executed By:** Lea Oleyk |
| **Test Title:** Validate ASM compatibility with web browsers and devices | **Test Execution Date:** 11/16/2023 |
| **Description:** Verify that ASM supports various web browsers. Ensure responsiveness and compatibility with various screen sizes and devices, including laptops, tablets, and smartphones. |  |
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| **Pre-conditions:** ASM is accessible through web browsers. Different devices with varying screen sizes are available for testing. | |
| **Dependencies:** None | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Access ASM using Google Chrome. | N/A | ASM should be fully functional and compatible with Google Chrome. | ASM functions correctly on Google Chrome. | Pass |  |
| 2 | Access ASM using Microsoft Edge. | N/A | ASM should be fully functional and compatible with Microsoft Edge. | ASM functions correctly on Microsoft Edge.. | Pass |  |
| 3 | Access ASM using  Safari. | N/A | ASM should be fully functional and compatible with Safari browser. | ASM functions correctly on Safari. | Pass |  |
| 4 | Access ASM using a laptop. | N/A | ASM should be responsive and compatible with laptop screens. | ASM functions correctly on a laptop. | Pass. |  |
| 5 | Access ASM using a tablet. | N/A | ASM should be responsive and compatible with tablet screens. | ASM functions correctly on a tablet. | Pass |  |
| 6 | Access ASM using a smartphone. | N/A | ASM should be responsive and compatible with smartphone screens. | Buttons do not function on mobile. | Fail | It needs to be adapted to mobile since there is no “click” like in laptops |
| 6 | Access ASM using a smartphone. | N/A | ASM should be responsive and compatible with smartphone screens. | ASM functions correctly on a smatphone. | Pass |  |
| **Post-conditions:** ASM is compatible with various web browsers, including google chrome, brave safari, and Microsoft edge. It is responsive and function seamlessly on different devices, including laptops, tablets, and smartphones. | | | | | | |

**Non-functional requirement #7:** Maintainability

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| **Test Case ID:** Maintainability\_ASM | **Test Designed By:** Lea Oleyk |
| **Test Priority (Low/Medium/High):** Medium | **Test Designed Date:** 11/16/2023 |
| **Module Name:** Maintainability testing | **Test Executed By:** Lea Oleyk |
| **Test Title:** Verify ASM mean time to restore after system failure | **Test Execution Date:** 11/16/2023 |
| **Description:** Validate that the mean time to restore the ASM following a system failure does not exceed 10 minutes, ensuring the system’s long-term viability. |  |
|  | |
| **Pre-conditions:** ASM is operational. A simulated system failure scenario is prepared. | |
| **Dependencies:** None | |

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| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) | Notes |
| 1 | Test mean time to restore following system failure | Simulate a system failure | The mean time to restore the ASM system should not exceed 10 minutes. | The mean time to restore is 1 hour. | Fail | The system is not maintainable. |
| 1 | Test mean time to restore following system failure | Simulate a system failure | The mean time to restore the ASM system should not exceed 10 minutes. | The mean time to restore is 8.5 minutes. | Pass |  |
|  | | | | | | |
| **Post-conditions:** ASM maintains a mean time to restore of 10 minutes or less, ensuring its long-term viability. | | | | | | |