Software Requirements Specification

for

Tour Agency

version: 1.0.0

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1. Introduction

1.1 Purpose

The purpose of this software requirement speification is to provide a clear documented model of the requirements for the **online tour agency system.** This document serves to provide top level use cases for a web customer making purchases online. The system includes the **client subsystem** as well the **tour administrator subsystem**.

The online tour agency system provides a platform for choosing a variety of tours. It is implemented as an **internet based enterprise** and has a vast inventory of tours across the world from contitent to country scale. Tour Administrator use this system to easily expand their service to a more global platform. This guarantees better flexibility, larger audience and an improved market.

The appeal of online tour browsing systems experienced a large boost in the last decade because the customers can browse easily through various options and directions, with filters and make it fast. The ability to reap its benefits from the comfort of one's own home has only bolstered its claim as one of the biggest enterprises that dominates the internet.

1.2 Intendeed Audience

The document describes the scope, functionality and features of an online tour searching system which has a large audience. This document finds relevance to people from various different technical and non-technical backgrounds. The document outlines various corporate goals, business strategies and design features that are important from a management point of view and can be used by project managers. With detailed analysis of the system design, features, implementation and performance, the document proves highly valuable to developers and testers.

Through the rest of the document, one becomes familiarized with the scope of these online searching / booking systems - from their purpose, benefits and business strategies. The context and origin of the product as well as its basic functionality are then explained in relevant detail along with an analysis of its different classes, design and implementation. We then detail the interface requirements, build analysis models and examine system features and non functional requirements.

1.3 Product Scope

The online booking system provides a platform for conducting searching and booking of a wide variety of tourist tours and provides a way of bringing guides and customers on an online platform to conduct transactions in a secure manner across the globe. It is implemented as an online enterprise. This system provides an avenue for customers to book from a wide variety of tours online. It also provides administrators a platform where they can upload their tours to the system for customers to view and reserve. The biggest advantages of the service is the comfort it brings with remote usage. The ability to compare various price ranges, photos, locations, dates.

provides for a more honest/depthful understanding of the trip.

Fitted with recommendation models to analyze customer interests, previous books and ratings can help recommend other products that the customer may like. This model is essential to increase visibility of interesting tours to the customer but also to boost the service's revenue. The service also has a large database that stores customer data and history. A key feature is secure money transaction and user privacy.

Increasing tour sales is of the highest priority to the online booking system. Turnover can increase only with an increase in tours sales. A huge part of the business strategy is using the internet and its various resources to its advantage from technological innovation, marketing strategy and business model. The vision of the online booking system is to be able to provide a smooth and user friendly platform for customers to select from a wide range of products conveniently and to cater to the needs of both customers and administrators.

1.4 References

[1] Online E - Commerce Shop SRS Document

Authors: GitHub user mitravinda462.

[2] Software Requirements Specification (SRS)

Authors: Andrew Blossom, Derek Gebhard, Steven Emelander, Robert Meyer

2. Overall Description

2.1 Product perspective

The system includes the user subsystem as well the tour administrator (operator) subsystem. The online booking system provides an outstanding way of bringing administrators and customers on an online platform to list and book tours in an efficient and secure manner irrespective of the distance between the two. It is a platform for customers to book tours online without having to visit agency or meet an operator physically, and a platform for vendors to sell their tours online without having to meet the customers physically or have a physical office set up for their work. This system is a one stop for customers to book from many of tours online. The administrator (operator) uploads his listing of tours to the system and the customers browse from these items and book them.
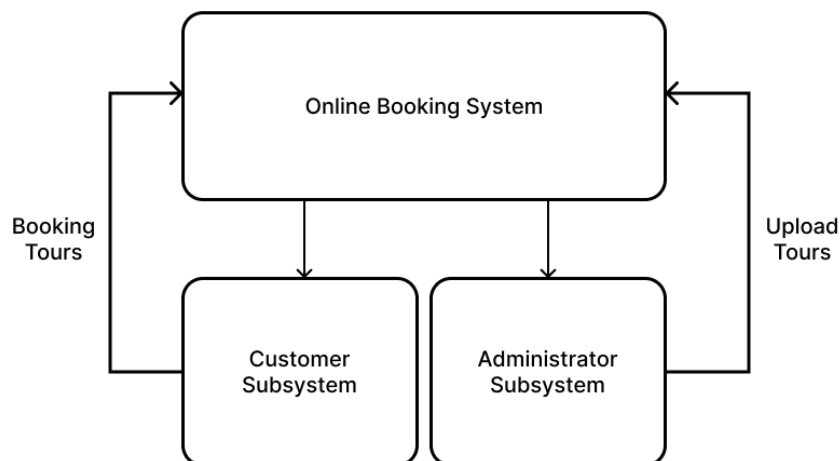
2.2 Product Functions

Enlisted below are all the major functions supported by the online booking system along with the user classes

- **Register new Account** for customer; for administrator;
- **Login** for customer; for administrator;
- **LogOut** for customer; for administrator;
- **View Account Details** for customer; for administrator;
- **Edit Account Details** for customer;
- **Search Tour** for customer; for administrator;
- **View Tour** for customer; for administrator;
- **Book Tour** for customer;
- **View Booked Tours** for customer;
- **Change Tour in Tour list** for customer;
- **Change Tour Details** for administrator;
- **Add new Tour**: for administrator;
- **Remove Tour** for administrator;

2.3 User Classes Characteristic

Customer - He/she is a verified user of the system who is intended to book a tourist trip using the platform. The functions used by customer are register, view account, login, edit account information, browse tours, view tour, book tour, view booked tours, proceed to buy, enter mode of payment, make payment, place order, view orders, track package, write review, cancel order, return item, logout

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Tour Administrator (Operator) - He/she is a verified user of the product who is intended to sell tour over the platform. The product functions used by administrators are: register, view account, login, upload new tour, change tour details, delete tour, view tours, search tours.

2.4 Operating Environment

There is one way to use the software - web applications for desktop browsers.

Mobile adaptation not allowed for this Application.

Web applications can be run on Windows 10, Windows 11:

Google Chrome (125 and above); Mozilla Firefox (120 and above); Internet Explorer (11 and above) Microsoft Edge (115 and above);

Mac OS X: Apple Safari (18.0.0 and later).

The Internet is required to access the system.

2.5 Assumptions and Dependencies

Under the assumption that a Windows/iOS/ Linux based operating system is available with Java / Node JavaScript / Angular JS working along with MySQL database management software available, designing a modular view of the system is smooth.
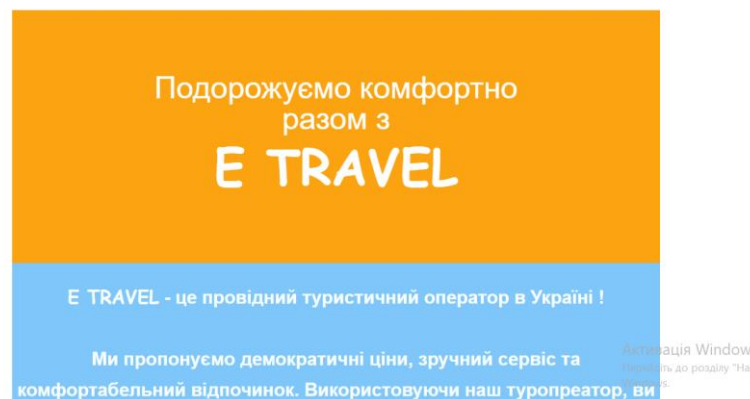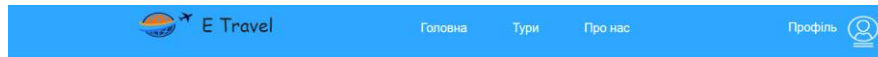
The recommendation models are assumed to be dependent on the server and its functionalities though relevant to customers will

be more clearly defined by the server.

3. External interface Requirements

3.1 User Interfaces
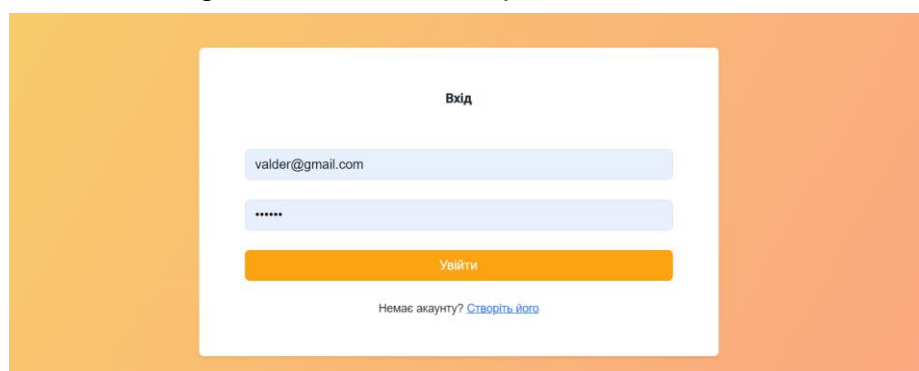
#Home page:

The home page of this online shopping system is designed to be attractive and user Friendly.

● It includes - buttons like Profile, Tours, About, Main page.

● It also displays the top rated tours and advertises the current sales, discounts and offers, best tours with the small info about.

#Sign In:

● This page allows the users with an fromaccount under this online booking system to Sign in to their account. The user can Sign in either with their phone number or email id.
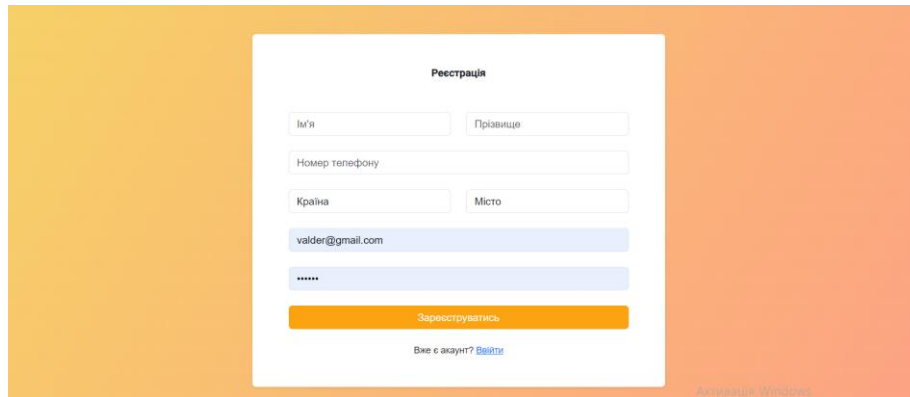

● The user, after entering their email id or phone number can click on the continue button. If the entered email id or phone number is valid, the system asks the user to enter the password which if entered correctly, takes the user to the homepage of the system

● If the entered email id or phone number is wrong, the system displays an error message saying 'Incorrect email id (or phone number)' and 'We can not find that account' email id (or phone number)'.

● If the email id or phone number entered by the user is valid and the password entered is invalid, then the system displays an error message saying 'There was a problem' and 'Your password is incorrect'.
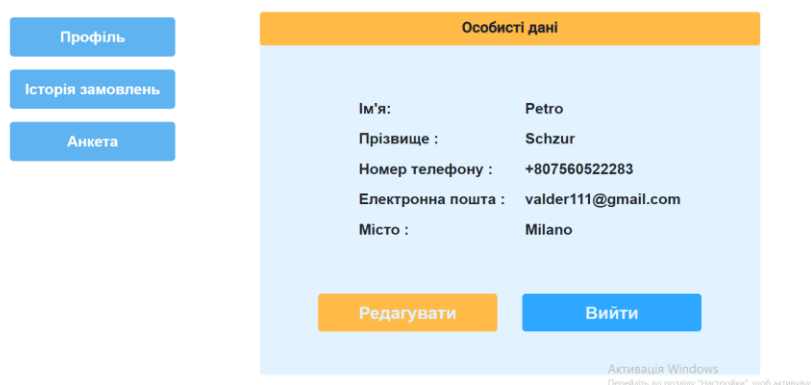
#Register new account

This page allows users to create a new account. The user is asked to provide their Name, Email id and password with city and country options. The constraint on the password field is that the password must contain at least 6 characters.

● The user is also asked to re-enter the password after which the user can create anew account by clicking on the 'Create Account' button.

● There is a sign-in field on this page for the users who already have an account. The user shall be taken to the sign in page after clicking on it.

#User Account

This page allows user to view his personal info and manage his tours that he/she booked earlier.

There is main information about user account and buttons to control it

#Change user info

This page allows user to change his personal information in system. The user asked to provide new Name Surname email password and location, but all optional and can be saved with old values.

There is input fields with present information and two buttons. One for saving, second for cancelling any changes.

#Booking history page

This page allows user to view his previous and avaliable books and control them. Also user can sort tours by criteria.

- There is SortBy buttor for sorting all records by some criteria like price and booking date.
- User can control tour by redirecting to tour page.
- User can view short information about tour and photo.

#About page

This page is used for provide info to user about company and their possibilities, give some contact information and get thrust.
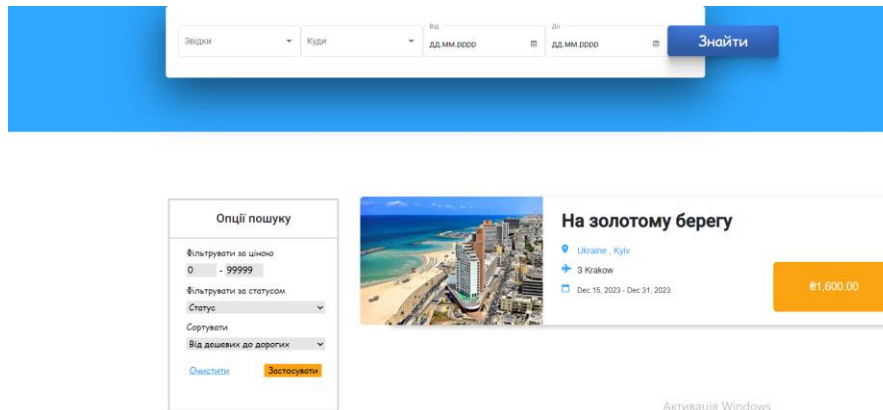

- There is all information about company with some photos about travel.
- There is button link that navigates user to tours page.

#Tours page

This page allows user to find tour by himself or using searching filters to choose one and book.

- There is a filter by location and date for choose relevant for user tours.
- Also on the page present additional filter to find tours by price, by date and by status.
- There is pages buttons for navigating throug pages.

3.2 Software Interfaces

● All the web pages of this online shopping system are majorly built using development tools like HTML, CSS, JavaScript, Angular JS, Java Spring etc.

● This online shopping system is accessible through the internet on any Operating System like Unix, Linux, Mac, Windows, etc.

● This system stores the tour data, customer data and administrator data in database that can be stored in different locations.

● The complete information about the tours is stored in the databases of the system and controlled by administrator.

● The system shall communicate with the bill-paying system to identify the available payment methods, validate the payments and process them. The data which includes customer email id/ phone number, selected bill payment method, product id of the products selected to be purchased, their quantities, prices and payment details like (Card number, Name on the card, Expiration date etc) are shared with the bill-payment system.

● The system shall communicate with the credit management system for handling financing options. Data which includes the total price, payment method and payment details are shared with the credit management system.

3.3 Communication Interfaces

The user can access the online booking system through the internet by searching the system's name on the web browser or get the link of system web addres.

● The system shall use the HTTP protocol for communication over the internet.

● The system shall give a confirmation to the customer that their booked is placed by sending a message to the customer's email id and phone number (optional).

4. Analisys Models

4.1 Use-Case Diagram:
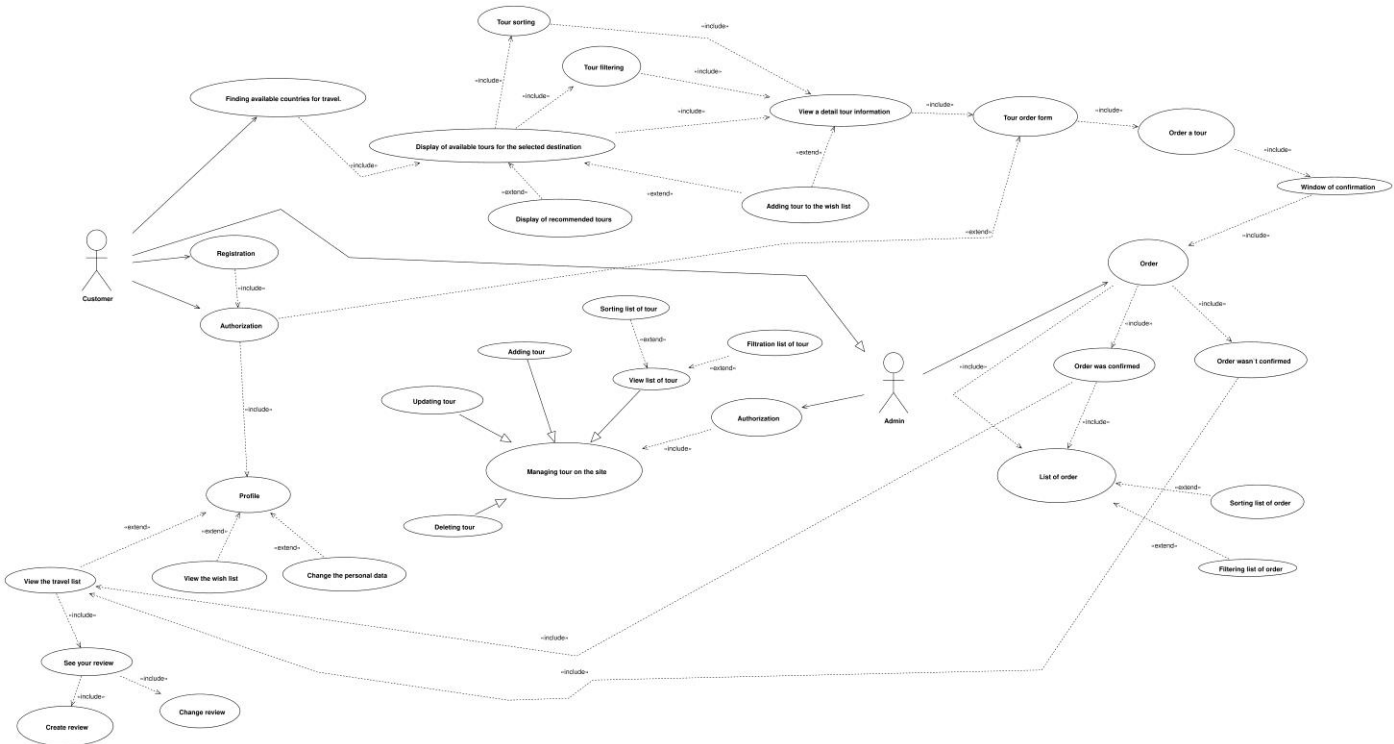
4.2 EER Diagram

5. System Features

5.1 User Accounts

5.1.1 Description and priority

Users of both subsystems – customers and administrators - must have an account to perform actions in the booking system. Users without accounts will only have the right to view the main page and will not be able to book or post tours in the system.

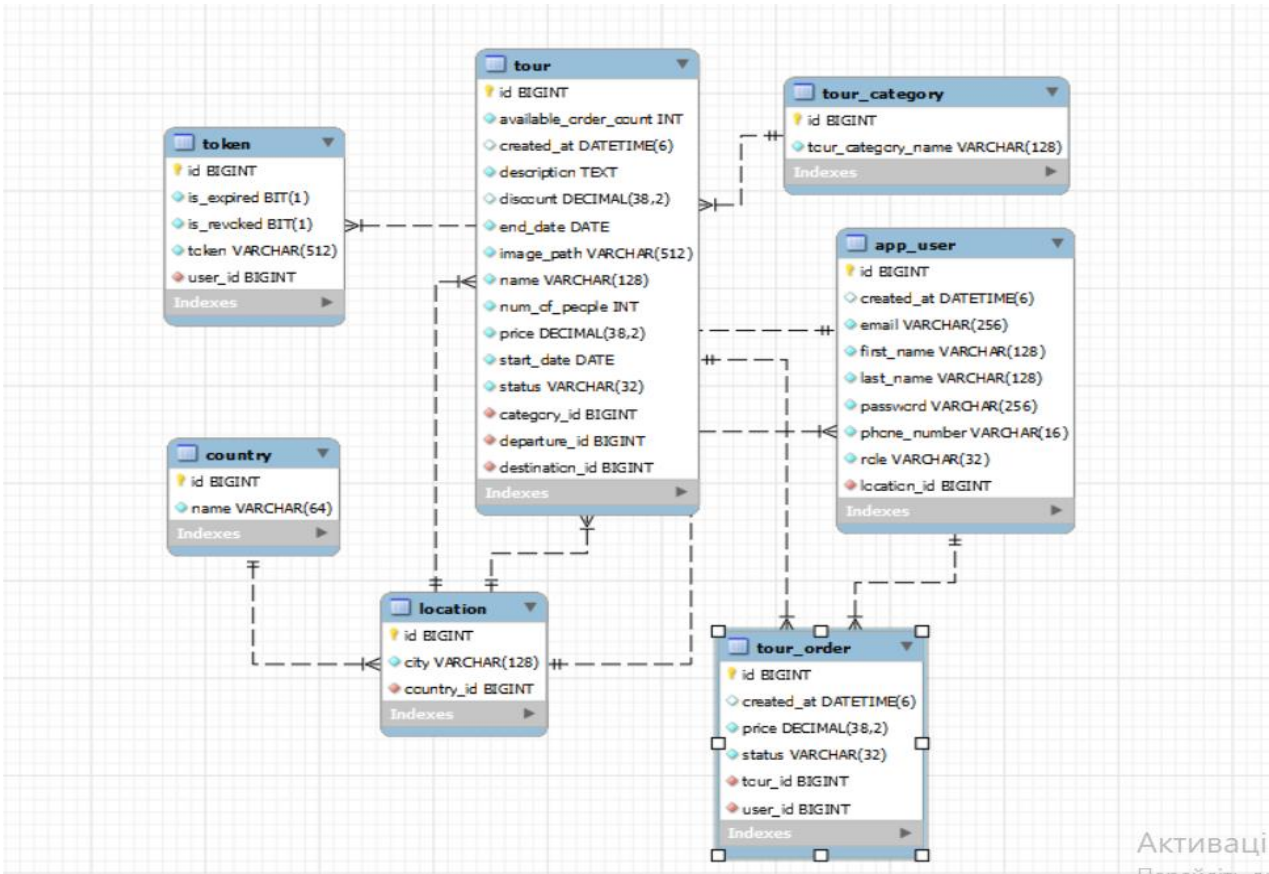   User accounts will contain the following information their name, surname, email address or phone number, location and password. Both users can view and log in to their accounts and even edit account data in the future.

   Operators accounts contain information about the organization or person, name, surname, role, email or phone number.

Priority: High

5.1.2 Response Sequences

   In the home page, users can select the signup or login button and type in their credentials for registration or for login respectively. Upon matching the required criteria, the account will either get created and the login page is displayed or the user is logged in to his/her account and the home page is displayed. To edit or view account details, the edit or view buttons may be clicked respectively. To edit details, the user may type in the new details and click on save changes. Upon validating the changes, the edited details are successfully updated.

5.1.2 Functional Requirements

REQ-1: Register

● **User**: Customers and administrators
● **Input**: In sign up page
   - Customer - enters name, email-id/phone number and password
   - Administrator- enters name, email-id/phone number, password,
● **Output**: Successfully registered, the login page is displayed
● **Alternative flow(s)**:
   - Incase of repeated/invalid email id or phone number, ask user to re-enter a valid choice

REQ-2: View account details

● **User**: Customers and administrators
● **Input**: Click 'view account details' button in home page
● **Output**: Displays account details that were filled by the user at the time of creating account
● **Alternative flow(s)** : none

REQ-3: Login

● **User**: Customers and administrators

● **Input**: In login page

- Customer - enters registered email-id/phone number and password
- Administrators- enters registered email-id/phone number and password

● **Output**: Successfully logged in, the home page is displayed

● **Alternative flow(s)**:

- Incase of invalid email id/phone number or a mismatch between user id and password, ask the user to re-enter a valid credential.

REQ-4: Logout

● **User**: Customers and administrators

● **Input**: Click 'logout' button in home page

● **Output**: User is logged out of the account, Login page will be displayed

● **Alternative flow(s)** : none

REQ-5: Edit account details

● **User**: Customers and administrators

● **Input**: In home page

1) Click button to edit account details
2) Select the detail whose value has to be edited
3) Enter the new details
4) Click on save changes

● **Output**: Successfully updated

● **Alternative flow(s)**:

- Incase of invalid details, ask the user to re-enter a valid credential.

5.2 The Search facility

5.2.1 Description and Priority

Customers can search for an item from the large list of tours in the Tours storage. They can search for a tour using price, status, type related to the product.

Relevant options are listed in a filter block with dropdown options of the search bar which upon selection, lists the tours related to the

settings searched for

Priority: High

5.2.2 Response Sequences

To search for the product, the customer choosing options in filter or browsing in unordered list of tours. The user then clicks on the product he/she wants to view.

5.2.3 Functional Requirements

REQ-1: Search tour

● **User**: Customers

● **Input**: In the home page

- click on the Tours button
- choose options in filter that related most to prefered tour.

● **Output**: List of tours related to the searching settings

● **Alternative flow(s)**:

Displays:

- No results finded message by searching parameters.
- No Tours avaliable now.

REQ-2: View Item

● **User**: Customers

● **Input**: From the list of items click on an item to view its details

● **Output**: Details of the selected tour - price, location, date, remaining amount,

status for that item, and «**Book Now**» button

● **Alternative flow(s)**: none

5.3 Booking and Canceling

5.3.1 Description and priority

Booking and canceling feature offers order management and flexibility to remove bookings within certain period of time that is specified by the administrator of that tour.

The customer can view and manage tours that are not started yet. He/she can cancel the resevre that is yet to be started. Also upon successful booking, the customer can track book, i.e the starting date, tour status.

Priority: Medium.

5.3.2 Response Sequences

In the tour page the customer can click on 'tour' and 'cancel' buttons, a list of past and existing books are displayed. If the customer wants to cancel an existing book that is not yet started he/she can click on cancel trip in the tours section of the user account.

5.3.3 Functional Requirements

REQ-1: View orders and returns

● **User**: Customers

● **Input**: In user account page

- Click on Tours and Cancel button

● **Output**: The active tours that not cancelled

● **Alternative flow(s)**: none

REQ-2: Cancel order

● **User**: Customers

● **Input**: In user account page

- Click on cancel tour button present

● **Output**: the order is successfully cancelled, tour removed from list

● **Alternative flow(s)**: none

5.4 Administrator features

5.4.1 Description and priority

Administrators can sell their tourist tours using the features provided by the system such as easy uploading of the list of tours to book and control all tours by changing details, view info.

Priority: High

5.4.2 Response Sequences

To upload the listings of the tours that the administrator wishes to sell, he/she has to click on the Add Tour button and enter the details for each tour such as name of the tour, price, photo, quantity, dates, location. For viewing the current bookings from the customers he/she has to click on the view of new bookings, where the details of the customer like the name, contatct number.

5.4.3 Functional Requirements.

REQ-1: Upload tour

● **User**: Administrator

● **Input**: In administrator account page

- Click on Add Tour and enter details (price, dates, photos, quantity, dates, location)

● **Output**: the Tours successfully uploaded, customers can view these tours

● **Alternative flow(s)**: none

REQ-2: View new bookings

● **User**: Administrator

● **Input**: In administrator account page

- Click on bookings button

● **Output**: displays the bookings for his/her tours from the customers

● **Alternative flow(s)**: none

6. Other Non-Functional Requirements

6.1 Performance Requirements

An online Booking service has many levels of organization and its overall performance is a confluence of factors that affect all these different levels

● Information system: The infrastructure and organization of the information system can crucially affect performance in the following ways

- average response time of web page
- failure rate
- average web page creation time
- site maintenance costs

In order to maintain an acceptable speed at the maximum number of requests allowed from a particular customer, any number of users must be able to access the system at any time. A smooth UI/UX is a necessity for all ecommerce applications. While a visually appealing design is essential, image optimization and other techniques can be implemented to ensure that the site is not very heavy. Real-time technologies equip online retailers with tools to keep up with the ever-evolving search ecosystem. Flexible goal setting, third-party data integration and real-time optimization offers a systematic solution to many ongoing challenges.

6.2 Safety Requirements

There are a wide range of concerns that arise wherever online transactions are performedespecially with money transactions and address records. One of the most common is online booking. Stealing one's personal information to make illegitimate purchases, phishing and keylogging are common ways used to steal identity. Another common risk is credit card frauds. Customer's may be redirected to the malicious user's site during payment- that is made to look similar to the legitimate payment gateway and cost them money and may even have their credit card numbers stolen. Malwares and Adwares commonly plague many websites. The risk is even higher with online shopping websites as scammers may easily acquire sensitive information entered by the user. Simply visiting the website makes the malware attack the user system. To ensure user safety, measures must be taken from both the user side as well as the booking payment system's side. From the user side, the user must never divulge any personal information except during bill payment. Users must be careful not to fall prey to phishing by verifying that mails being sent from the service are in fact, authentic. Users must be wary of ads and ensure that appropriate antivirus softwares has been installed in one's system.

The shopping system itself has to take concrete measures to ensure that customers can trust the service being provided to them. SIte seals on web sites are visual indicators that the website is safe and secure. Acquiring SSLs certificates are mandatory as this ensures the user that the communication channel is encrypted.

6.3 Security Requirements

To ensure secure transfer of data, the system must use secure sockets in all transactions that include any confidential customer information. The system may choose to automatically log out all customers after a period of inactivity and verify by confirmation all the transactions with the customer's web browser. The system will ensure that cookies and all temporary storage do not hold any sensitive information. The customer's web browser must never display a customer's password or credit card details. The system's back-end servers must never display a customer's password and these servers must only be accessible to authenticated administrators. These databases must be encrypted and within the company's perimeter. The service can ensure user identity authentication using two-step verification procedures. Further, the system can ensure that any additional security risks experienced by the users can be reported to the system immediately.

** END

Chernivtsi, December 29, 2023