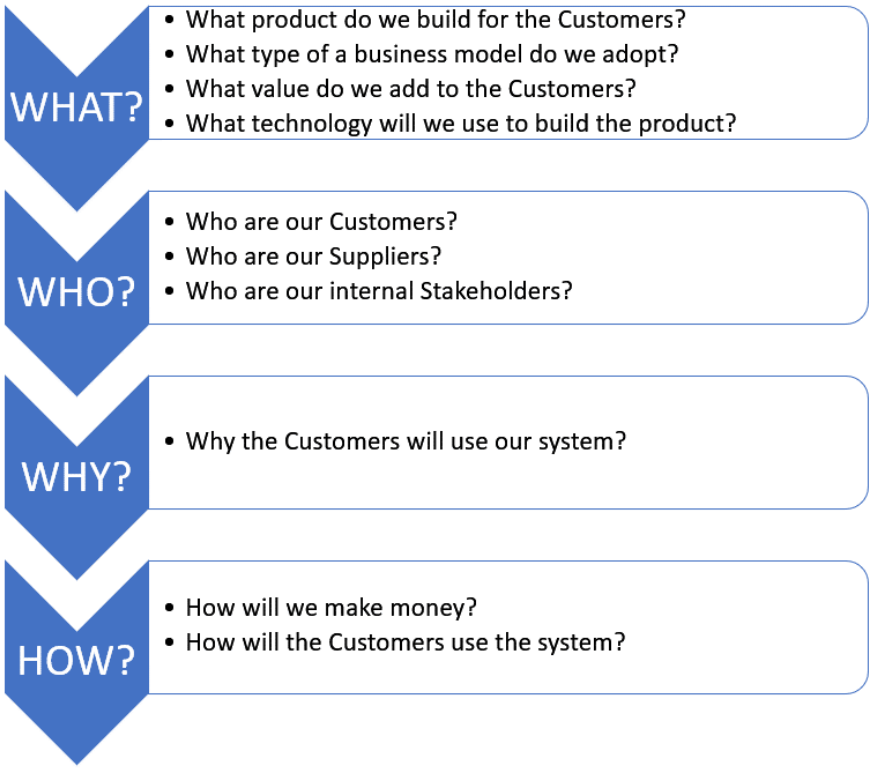
Business Case <your application name>

Introduction

Business Case Conceptual Structure	Definitions
	**Customer:** A customer is an individual or business that purchases another company's goods or services. Customers are important because they drive revenues; without them, businesses cannot continue to exist. **Supplier**: A supplier is a person, business, or entity that provides products, data or services to another entity. **Stakeholder**: A person with an interest or concern in something, especially a business. Stakeholders encompass all individuals or groups who have a vested interest in the performance of the business. **Business Model:** The term *business model* refers to a company's plan for making a profit. *Examples: Freemium, Subscription, Advertising, etc.* **Distribution Channel:** A distribution channel is a path that a product or service could take on its way to market. What's a direct distribution channel? A direct distribution channel is one where a company sells directly to the consumer, usually through their website or retail store.

Team No: TEAM 5

Application Name: SwiftRails

Business case should be documented by completing the table below (Answers column).

Category	BC Section	Questions	Answers
WHAT?	**Value Propositions**	What Customer business needs are we satisfying?	1. Convenience and Accessibility: Provide customers with an easy-to-use platform where they can browse, select, and reserve tickets for various events or services from anywhere, at any time, using their preferred device (desktop, laptop, mobile). 2. Time-Saving: Streamline the ticket booking process to save customers time and effort by offering quick and efficient booking and payment options. Minimize the time spent waiting in queues or on phone calls for ticket reservations. 3. Reliability and Security: Ensure a secure and reliable platform for making reservations and processing payments. Build trust with customers by implementing robust security measures to protect their personal and financial information. Flexibility and 4. 5. Customization: Allow customers to customize their booking experience by providing options such as choosing preferred seating, adding additional services (e.g., meal upgrades for flights), or selecting specific dates and times for their reservations. 6. Cost-Effectiveness: Provide competitive pricing and offer discounts, promotions, loyalty programs, or bundled deals to incentivize repeat bookings and

			attract new customers. Ensure transparent pricing with no hidden fees.
		What value do we add to the Customers?	1. Convenience: Customers can easily browse and book tickets for various events or services from the comfort of their own homes, at any time, without the need to visit physical ticket counters or wait in long queues. 2. Time-saving: By offering a streamlined booking process, customers save time that would otherwise be spent searching for tickets, waiting in lines, or dealing with complex reservation procedures. 3. Flexibility and Customization: Customers have the flexibility to customize their booking experience by selecting preferred seating, choosing specific dates and times, or adding additional services or upgrades to enhance their experience. 4. Reliability and Security: The system ensures the security of customers' personal and financial information, providing a safe and trusted platform for making reservations and processing payments. 5. Customer Support: Responsive customer support services are available to assist customers with inquiries, resolve issues, and provide assistance throughout the booking process, enhancing overall satisfaction and trust
	Type of Business Model	What type of a business model do we adopt?	1. Commission-Based Model: In this model, the ticket reservation system earns revenue by charging a commission or transaction fee for each ticket sold through its platform. The commission is typically a

			percentage of the ticket price and is charged to event organizers or service providers. 2. Advertising Model: The ticket reservation system generates revenue by displaying advertisements on its platform. Advertisers pay the platform to reach the system's users, leveraging the platform's audience and user engagement to promote their products or services. 3. White-Label and Licensing Model: The ticket reservation system licenses its technology and platform to third-party organizations, allowing them to create their own branded ticketing solutions. The system earns revenue through licensing fees, setup charges, and ongoing support services.
	Key Resources	What Key Resources do our value propositions require?	1. Technology Infrastructure: This includes servers, databases, networking equipment, and software frameworks necessary to host and operate the ticket reservation platform. Reliable and scalable infrastructure is critical to ensure the system can handle high volumes of traffic and transactions. 2. Ticket Inventory: Access to a wide range of ticket inventory across various events, venues, and categories is essential to attract users and provide them with diverse options for booking tickets. This may involve partnerships with event organizers, venues, promoters, and ticketing agencies. Payment Processing: Integration with secure and reliable payment processing services is necessary to facilitate online transactions and accept payments from users. This includes support for multiple payment methods

			such as credit/debit cards, digital wallets, and bank transfers. 3. Customer Support: Dedicated customer support resources, including personnel, communication channels (e.g., phone, email, live chat), and support tools, are required to assist users with inquiries, issues, and technical support related to ticket reservations, payments, and account management. 4. Marketing and Promotion: Resources for marketing and promotion activities are essential to attract users, drive traffic to the platform, and promote ticket sales. This may include digital marketing campaigns, advertising, social media management, search engine optimization (SEO), and content creation. 5. Data and Analytics: Tools and technologies for collecting, analyzing, and leveraging data on user behavior, preferences, and purchasing patterns are crucial for optimizing the platform, improving user experience, and making data-driven decisions. 6. Legal and Compliance: Resources for legal counsel, regulatory compliance, and risk management are necessary to ensure the ticket reservation system adheres to relevant laws, regulations, and industry standards, particularly regarding data privacy, consumer protection, and payment security. 7. Partnerships and Relationships: Building and maintaining strategic partnerships and relationships with event organizers, venues, promoters, sponsors, and other stakeholders in the ticketing ecosystem is

			vital for securing ticket inventory, accessing exclusive deals, and expanding the platform's reach. 8. Technical and Development Team: A skilled team of software engineers, developers, designers, and IT professionals is essential for building, maintaining, and updating the ticket reservation platform, as well as implementing new features, functionalities, and integrations. 9. Operations and Administration: Resources for general operations, administration, and management functions, including personnel, office space, administrative tools, and operational processes, are required to ensure smooth day-to-day operations of the ticket reservation system.
		What are our Distribution Channels?	1. Online Platform: The primary distribution channel for most ticket reservation systems is their online platform, typically a website or mobile app. Users can browse events, view seating charts, select tickets, and make purchases directly through the platform. 2. Third-Party Ticketing Websites: Ticket reservation systems may partner with third-party ticketing websites and marketplaces to expand their reach and access new customer segments. These partnerships allow users to discover and purchase tickets through partner platforms. 3. and other online platforms. Affiliates promote ticket sales through unique tracking links and earn commissions for referred purchases.

			4. Email Marketing: Email marketing campaigns allow ticket reservation systems to communicate directly with their subscribers and past customers, informing them about upcoming events, special offers, and promotions. Personalized email campaigns can drive traffic to the platform and encourage ticket purchases. 5. Search Engines and Online Ads: Search engine optimization (SEO) and online advertising (e.g., Google Ads, Bing Ads) can help ticket reservation systems improve their visibility in search engine results and target specific audience segments with relevant ads.
	Technology	What technology will we use to build the product?	Front-End Programming: 1. HyperText Markup Language, or HTML, is the language used to generate web pages' structure. Determining the content of web pages is crucial for any web development project, including the reservation system for your train tickets. 2. Cascading Style Sheets, or CSS, are what style HTML components. For your website to have a visually appealing layout, cohesive colour scheme, use of typefaces, and responsiveness to various screen sizes, CSS is essential. 3. Bootstrap: A front-end framework that offers pre-made forms, buttons, navbars, and other components to make web building easier. Built on top of HTML, CSS, and JS, Bootstrap aids in making websites responsive and suitable for mobile devices.

			4. a JavaScript framework or library like React, Angular, or Vue.js for a contemporary and dynamic user interface. These technologies can improve the user experience overall, increase the dynamic content updates, and improve user interactions. Back-End Development: Java [J2EE]: 1. Java 2 Platform, Enterprise Edition is a Java-centric, platform-independent environment for creating and implementing web-based enterprise applications. It is appropriate for your reservation system since it is strong and secure. 2. An API for Java called JDBC, or Java Database Connectivity, specifies how a client may access a database. It is essential for establishing a connection between your database and Java-based back-end so that you may query and update the database in response to user input. 3. Servlet: A class in the Java programming language that increases the functionality of servers. As a mediator between requests originating from the web browser (front-end) and the database handling logic (back-end), servlets respond to incoming requests and create responses. 4. Oracle (SQL) as your database because of its reputation for stability, scalability, and security. The Oracle database will be accessed using SQL (Structured Query Language), which will let you handle the data

			for user accounts, reservations, train timetables, and other information. Front-end: JavaScript and frameworks like React, Angular, or Vue.js may be useful if the project calls for more dynamic and interactive features. Back-end: Using a Java framework like Spring or Spring Boot, which may streamline many repetitive activities like security and transaction management while building up a Java web application, may be something you consider depending on the intricacy of your application logic. Security: Think about integrating OAuth for authentication and HTTPS for secure communication for secure payment gateways, password updates, and login/logout security. Payment Gateway: To process payments, we must integrate a service that facilitates safe financial transactions, such as PayPal, Stripe, or a comparable offering.
		Is it a mobile or desktop application?	Web application
	Known Prototypes	What are the known prototypes of your product? *Reference some known portals on the Internet that are similar to your product. You will use these prototypes for developing business, user requirements.*	List of Prototypes: The following well-known websites for booking rail tickets online might be used as models for your project: 1. Indian Railway Catering and Tourism Corporation, or IRCTC): India has a thorough system in place for ordering train tickets. It provides information about train timetables, available seats, fare inquiries, and online ticket purchases. Because of its effectiveness and user-friendly interface, this system is well acclaimed and frequently used.

			2. Online Railway Ticket Reservation System – Geeks for Geeks: This system facilitates online, and offline ticket booking and offers information on train and seat availability. After a successful payment, it creates a ticket and a PNR number. 3. Altex Soft - Railway Reservation System: With features including ticket generation, booking engines, and multi-channel distribution, this system is designed to propel online train reservations. 4. ScienceDirect - Railway Online Booking System: This technical advancement aims to enhance railway services and tackle the difficulties associated with railway ticketing. 5. ResearchGate - Online Railway Ticket Booking System: This system provides a feature-rich web application with advanced capabilities to make rail ticket booking easier.
WHO?	**External Customers**	Who are our Customers?	1. Individual Passengers booking train tickets for personal travel 2. Travel agencies handling train reservations for customers. 3. Companies managing group travel for employees
	External Suppliers	Who are our Suppliers? *Does the system exchange data with external systems? For example, banks, delivery contractors, restaurants, etc.*	1. Railway Companies, Payment Gateway Providers, Data Providers, Security Services will be our main suppliers. 2. System exchanges data with Banks.

	Internal Stakeholders	Who are our internal Stakeholders? *Do we need a product development group?* *Do we need a sales group?* *Do we need a finance group (accounts payable, receivable)?* *Do we need a customer support team?* *Do we need an advertising management group?*	1. Our internal stakeholders include developers, database administrators, product management teams, and quality assurance team who are responsible for building and maintaining the Train Ticket reservation system. 2. Yes we need a product development. Our system is complex, involving multiple features and integrations, having a dedicated product development group can be beneficial. 3. As our platform is digital, we don't need a sales team. 4. Yes, we need a finance group that will manage the invoices and processing payments. This ensures that financial transactions related to ticket reservation are handled accurately and securely. 5. Yes, we do need a customer support team, to answer different queries from customers or users. 6. Yes we need an advertising management group this will play a crucial role in effectively managing group and optimizing the advertisements. This will increase the business.
WHY?	**Expected Benefits to the Customer**	Why do we believe our new product will be better than those already existing on the market?	1. **User-Friendly Interface:** Our system prioritizes a seamless and intuitive user experience. The interface is designed with simplicity in mind, ensuring that users can effortlessly navigate through train schedules, check seat availability, and complete bookings without unnecessary complexity. 2. **Comprehensive Information Access:** We provide users with a one-stop solution for all their train-related inquiries. From viewing schedules to checking seat availability and obtaining detailed information on train services, our system offers a comprehensive range of features that caters to diverse user needs.

			3. **Real-time Updates:** Our commitment to providing real-time information sets us apart. Users can rely on up-to-the-minute details on train timings, seat availability, and fare information, ensuring accuracy and reliability in their travel planning. 4. **Secure Booking Process:** Security is paramount in online transactions. Our system ensures a secure environment for users to book seats online, instilling confidence in the safety and confidentiality of their personal and financial information. 5. **Efficiency in Reservation:** The seat reservation process is designed to be not only secure but also efficient. Users can quickly and conveniently book their seats online, minimizing the time and effort required for the entire booking process. 6. **Proactive Communication:** Our system is equipped to provide instant confirmation of bookings and timely alerts or updates on any changes in the train schedule. This proactive communication ensures that users are well-informed and can plan their journeys accordingly.
		Why the Customers would want to use our system?	1. Decreased Holding Times or Lines: Passengers may find it difficult and time-consuming to wait in lengthy lines at train terminals. 2. Passenger Flexibility: Travelers have the option to schedule their trips in advance, selecting their preferred seats, courses, and departure times. 3. Planning for Capacity and Seat Allocation: There are only so many seats, or a berth available on trains, hence a reservation system makes it easier to distribute the available seats. Passengers can select

			preferred seats as well as berths ahead of time, guaranteeing maximum capacity usage. 4. Connectivity with Different Systems: Inventory, scheduling, and ticketing systems are among the additional railway management systems that reservation systems can interface with. Overall railroad operations are made more efficient by this integration.
HOW?	**System Use**	How will the External Customers use the system?	**1. User Registration:** External users will commence by establishing an account on the platform, involving the provision of personal details like name, contact information, and potentially payment details. **2. Login:** Once registered, users will access the system by logging in using their credentials, ensuring a secure and straightforward login process. **3. Search and Select Trains:** Customers should be able to search for available trains based on criteria such as origin, destination, date, and time. The system should offer a user-friendly interface with filters and sorting options for an efficient search experience. **4. View Train Details:** After the search, customers can review detailed information about available trains, encompassing departure and arrival times, stops, seat classes, and prices.

			5. Select Seats/Class: Customers should have the ability to choose their preferred seats or class for the journey. The system should display real-time information on available seats and classes, allowing customers to make choices aligned with their preferences and budget. **6. Add Passengers:** External customers may need to input details about passengers, such as names and ages, especially for group bookings or when traveling with family. **7. Review and Confirm:** Before finalizing the booking, customers should have the opportunity to review their selections, including train details, seat choices, and passenger information. The system should present a clear summary of the booking. **8. Payment:** The system should support secure online payment methods, enabling customers to pay for their tickets using credit/debit cards, digital wallets, or other accepted options. **9. Receive Confirmation:** Upon successful payment, customers should receive a confirmation of their booking, inclusive of a booking reference, e-ticket, and other pertinent details. **10. View and Manage Bookings:**

			The system should provide functionality for customers to view and manage their bookings, including modifying details, cancelling reservations (if allowed), and reviewing past or upcoming journeys. **11. Customer Support:** Implement a customer support system, such as a help center or live chat, to assist customers with inquiries or issues during the booking process or while using the service. **12. Notifications:** Integrate a notification system to keep customers informed about their bookings, schedule changes, or any service disruptions.
		What is the main system use scenario for the External Customers?	The primary scenario for external customers involves the end-to-end process of searching for trains, selecting seats, making payments, and obtaining confirmation for their ticket reservations. This includes actions such as registration, authentication, browsing, searching, seat selection, payment processing, and post-booking activities like downloading tickets and managing reservations.
		What is the main system use scenario for the Internal Users?	**Internal Users (System Administrators, Customer Support, etc.):**

			User Management: Scenario: Internal users need to manage customer accounts, verify identities, and assist with account-related issues. Action: Internal users access a dashboard to manage customer accounts, reset passwords, or assist with account-related inquiries. **Monitoring System Performance:** Scenario: Internal users monitor the overall system performance to ensure smooth operations. Action: Users access a dashboard with real-time statistics, error logs, and performance metrics. **Train Schedule Management:** Scenario: Internal users manage and update the schedule of trains. Action: Users access an admin panel to add, modify, or remove train schedules based on operational requirements. **Customer Support and Issue Resolution:** Scenario: Internal users handle customer inquiries, issues, and complaints. Action: Users access a customer support interface to respond to queries, resolve issues, and provide assistance. **Payment and Transaction Monitoring:** Scenario: Internal users monitor payment transactions for any issues or discrepancies. Action: Users access a payment dashboard to review transaction logs, address payment-related issues, and ensure financial accuracy.

			Reporting and Analytics: Scenario: Internal users generate reports and analyze data for business insights. Action: Users access a reporting system to generate various reports, including sales trends, customer demographics, and system usage.
		How will we make money? *Such as Subscription fees, renting, leasing, licensing, brokerage fees, advertising sales, etc.*	**1. Booking Fees:** - Charging a fee for each ticket booked through the platform. This fee can be a fixed amount or a percentage of the ticket price. **2. Convenience Fees:** - Charging customers an additional fee for the convenience of using the online booking system. This fee may cover the cost of providing a user-friendly platform and online payment processing. **3. Subscription Model:** - Implementing a subscription-based model where users pay a recurring fee to access premium features, such as early access to tickets, exclusive discounts, or other perks. **4. Partnerships and Sponsorships:** - Establishing partnerships with event organizers, artists, or venues for exclusive rights to sell tickets or to become the official ticketing platform for specific events. This may involve sponsorship deals or revenue-sharing agreements.