**OOPS Project**

**Use Case Documentation**

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**USE CASE NAME: RAILWAY RESERVATION SYSTEM**

**DESCRIPTION:**

**A passenger logs in to a railway reservation website to book a ticket from a starting destination to the desired destination.**

**Travel agent guides the passenger to book a ticket according to the appropriate train schedule.**

**Ticket is issued to the passenger via the administrator. Administrator logs in to the website. Administrator manages the departments and ensures they are functioning properly and corrects any error if present.**

**Clerk supports the administration if any additional help is required.**

**The passenger will finally confirm the seat-booking and receive their ticket by making the required payment.**

**ACTORS:**

**Primary Actors: PASSENGER, TRAVEL AGENT**

**Secondary Actors:**

1. **ADMINSTRATOR is inherited by 5 different actors i.e., Train scheduling, Seat booking, Status updates, Payment and Refund.**
2. **CLERK**

**PRECONDITION:**

1. **The passenger who wants to make a booking should make sure that he has an active internet connection.**
2. **The train schedule should be updated properly when the passenger is making a booking.**
3. **The administrator, travel agent, clerk should have an active internet connection.**
4. **The website should run properly and not cause any errors while booking ticket or when the passenger is making the payment**

**BASIC FLOW:**

1. **Passenger visits the website and logs into the website using the required credentials to book a ticket.**
2. **The administrator displays the train information, arrival time, departure time to the passenger so that the passenger can make the booking accordingly.**
3. **The passenger selects their desired reservation, and makes the booking according to the seat availability.**
4. **The administrator will either make a booking successfully or will display an error if the seat is unavailable.**
5. **Clerk will update the schedule of a train, estimated time of arrival and the delay if any.**
6. **The passenger will make the payment initiated by the payment administrator. The passenger will make the payment and confirms the booking.**
7. **The passenger finally boards the train on the scheduled date.**

**ALTERNATIVES:**

1. **The travel agent will suggest an alternate option to the passenger, if the passenger is not comfortable with the train booking due to a delay or unavailable seats.**
2. **The passenger is asked to book a ticket directly at the railway station due to internet issues.**

**EXCEPTIONS:**

1. **The refund administrator will initiate a refund to the passenger, if they decide to cancel to their payment due to personal reasons.**
2. **The refund administrator will initiate a refund if the booking is cancelled due to some natural calamities.**
3. **The passenger is asked to board two different connecting trains due to some problems with the functionality of the train.**

**POST CONDITIONS:**

**The passenger makes a successful payment for the booking and boards the scheduled train, or the booking is cancelled if there is an error in the payment process.**

**LEVELS:**

* **Successfully book a relevant train ticket**
* **Reservation process is aided by the administration and clerks.**
* **Administration – Manages the entire reservation system**

**Clerks – Aid the communication between the different departments under the administration.**

**TRIGGER:**

**The passenger clicks on the help button in the website if the passenger is not able to book a ticket, the administrator will help the passenger resolve the issue.**

**STAKEHOLDERS:**

**The Administrator department – This department makes sure that the booking process takes place successfully and there is no mix up in the process.**

**The Travel Agent department – This department makes sure the passengers are happy by suggesting the best option available for booking.**

**The Clerk department - Clerk department helps the administration department to ensure that no error is occurred during the whole process.**