**Software Quality Assurance- Session 1**

As a railway user, I should get an option to cancel the tickets, so that user can cancel the ticket and get refund.

**Assignment 1:**

*Given:*

* A new button with Label “Cancel Ticket” should be displayed for cancelling the ticket.
* Button should not be displayed for those tickets for which journey date is previous than current date.
* Refund amount should be calculated as follows:
* If user cancels the ticket 60 days prior to journey date.

Refund 70% of amount

* If user cancel the ticket b/n 60-30 days prior to journey date

Refund 50% of amount.

* If user cancel the ticket between 30-10 days

Refund 35% of amount.

* If user cancel the ticket between 10-1 days

Refund 20% of amount.

* User should get an email for successful cancellation.

*Grooming Points / Story Specification/ Coverage Criteria /Requirement Specification:*

Disable “Cancel Ticket” button for:

1. Time difference of less than one day (24hours 0 minutes 0secs) of difference between train journey time and cancellation time.
2. No available journeys.
3. Confirmed Tatkal Tickets.
4. I-tickets (counter booked ticket) and Un-reserved tickets.

Auto cancel and refund full amount for e-tickets of:

1. “Cancelled” status trains.
2. Partly booked tickets in Tatkal.
3. Waitlisted tickets after train journey.

Partial refund for:

1. Cancellation of Confirmed/RAC/Waitlisted ticket of any class (1A, 2A, 3A, S, 2S) as per given norms.
2. Tatkal Partially confirmed (multiple passengers: some confirmed/ some waiting tickets)
3. Tatkal RAC/Waitlisted tickets.
4. Delayed train by 3 hours and passenger has not travelled must confirm within next 2 hours.

Additionally:

1. Multiple tickets booked under 1 PNR number:

Refund for single ticket (following the norms)

Other ticket status remains same.

1. Allow individual (including all) to be cancelled by turn in 1 PNR number.
2. Prompt to cancel return journey tickets in case of cancellation.
3. Display appropriate amount number (up to 2 decimal places) before “Confirm Cancellation” button.

**Assignment 2:**

*Test Coverage:*

1. Verify that “Cancel Ticket” button is available for valid time-line and ticket types.
2. Verify that “Cancel Ticket” button is disabled for journeys that have started.
3. Verify that tickets are auto-cancelled for Train cancelled/Waitlisted.
4. Verify that a total refund amount is displayed before “Confirm Cancel” button is clicked.
5. Verify that an email has been sent for successful completion of cancellation process.
6. Verify that multiple attempt to cancel a ticket is not available.
7. Verify that a cancelled ticket is not available for cancellation again.
8. Verify that a failed transaction does not disable the “Cancel Ticket button”
9. Verify that partial cancellation of tickets with multiple passenger bookings is available and rest tickets are still available for cancelling.
10. Verify that confirmed Tatkal tickets have disabled “Cancel Ticket” button.
11. Verify that for single passenger ticket cancellation 60 days prior to journey date refund of 70% of amount
12. Verify that for single passenger ticket cancellation 60-30 days prior to journey date refund of 50% of amount
13. Verify that for single passenger ticket cancellation 30-10 days prior to journey date refund of 35% of amount
14. Verify that for single passenger ticket cancellation 10-1 days prior to journey date refund of 20% of amount
15. Verify that account details are available for amount refund.

**Assignment 3:**

*Test Case Scenario:*

1. Enable “Cancel Ticket” button when:

Journey date – Cancellation date (Today)

& Ticket Type != Tatkal

amount = Single passenger booking amount

1. >= 60  
   Refund amount = 70% of amount
2. < 60 & >= 30  
   Refund amount = 50% of amount
3. < 30 & >=10  
   Refund amount = 35% of amount
4. <10 & > 1  
   Refund amount = 20% of amount
5. <1

Disable “Cancel Ticket button” No refund

1. Auto-cancellation for e-ticket Waitlisted/Cancelled train/Tatkal Waitlisted

Refund amount = 100% of amount

1. Disable “Cancel Ticket” button

Refund Amount = 0

when:

1. No booked journey tickets.
2. E-Ticket Ticket Type = Tatkal & Ticket Status = Confirmed
3. I-Ticket || Un-reserved Ticket
4. Journey Date < Cancellation Date (Today)
5. Ticket has already been cancelled.
6. Enable “Cancel Ticket” button for individual passengers in multiple ticket bookings with 1 PNR number.

Refund Amount = (as per norms)

**Assignment 4:**

*Boundary Value Analysis:*

|  |  |  |
| --- | --- | --- |
| **Condition** | **Partitioning** | **Data Set (before journey)** |
| < 1 | Right boundary | 23 hours 59 minutes 59 seconds |
| 1-10 days | Left boundary | 24 hours |
|  |  | 24 hours 0 minute 01 second |
|  | In-range | 5 days |
|  | Right Boundary | 9 days 23 hours 59 minutes 59 seconds |
| 10-30 days | Left boundary | 10 days 0 hours 0 minutes 0 seconds |
|  |  | 10 days 0 hours 0 minutes 1 second |
|  | In-range | 18 days |
|  | Right Boundary | 29 days 59 minutes 59 seconds |
| 30-60 days | Left boundary | 30 days 0 hours 0 minutes 0 seconds |
|  |  | 30 days 0 hours 0 minutes 1 second |
|  | In-range | 48 days |
|  | Right Boundary | 59 days 59 minutes 59 seconds |
| > 60 days | Left boundary | 60 days 0 hours 0 minutes 0 seconds |
|  |  | 60 days 0 hours 0 minutes 1 second |
|  | In-range | 68 days |

|  |  |
| --- | --- |
| **Partitioning** | **Data Set (before journey)** |
|  | Waitlisted to Confirmed |
|  | RAC to Confirmed |

*Equivalence Partitioning Analysis:*

|  |  |
| --- | --- |
| **Condition** | **Data Set (Before journey)** |
| < 1 | 6 hours |
| 1-10 days | 6 days |
| 10-30 days | 16 days |
| 30-60 days | 46 days |
| > 60 | 66 days |