Test Plan

TEAM

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Functional Testing:-

USE CASES	POSITIVE TEST	NEGATIVE TEST
Sign up for RailIndia	Able to login after the signup	1.Giving too short username(i.e less than 6 characters) 2.Giving passwords without any Capital letters and Special Characters 3.Reusing already created username and password
Logging into RailIndia	Once user credentials are entered it will redirect to Homepage of website	1.non-existent user name 2.Giving wrong password
Book Ticket	On successful ticket booking it will be reflected in the view tickets section in user profile	1.booking tickets for zero passengers 2.booking to a passenger not in the passenger dataset
View Available trains	On selecting a station a list of trains containing(highlighting) the given station in its path on that day, will be displayed	1.Checking for a station not present in the dataset
View Stations	On hovering over a station in the india map there will be a pop-up displayed showing list of trains reaching that station	1.Pointing over some random point in the map won't display any information
Add a new train	Once a train is added it	1.Adding a train between

	can found by checking all trains between the given start and end stations	same start and end stations 2.Adding a train with invalid station_id's 3.Adding the same train data
View train schedule	Check if arriving time at every station station in the path is continuously increasing	1.Giving invalid train_id and searching for the schedule
Find nearest Railway Station	Checking by adding a slight error to a station coordinates	1.Giving wrong input for latitude and longitudes (i.e instead of float give a string as input) 2.Checking for points which are at same distance from multiple stations
View ticket	Checking if the train_no and station's in the ticket is are valid and are in the path followed by the train	1. Trying to view tickets without booking any
Statistics	Checking if the total number of trains in a state is same as the sum of number of trains in each station in that state	1.Selecting a invalid station 2.Selecting a invalid state 3.Checking if the total inflow and total outflow are same
Add a station	Checking by booking a train containing the station in its path	1.Adding a fake station with same sation_name and city but different state
Update Waiting List	Checking is the waiting_pref_no of all passengers in the waiting list are updated	1.Checking if there is any change in waiting_pref_no of confirmed tickets passenger
Cancel Ticket	1.Checking is the waiting_pref_no of all passengers in the waiting list are updated 2.On canceling a ticket in waiting list only the tickets	1.trying to cancel a ticket with invalid booking id 2.Trying to cancel tickets booked by different users

	below it should get updated	
Waiting list size	Checking if this is increase if we try to book tickets in waiting list	1.Trying to check waiting list size of invalid trains
Waiting list position	Checking if waiting list positions are sequential (i.e none of them are missing)	1.Trying to check waiting list position for invalid trains 2. Trying to check waiting list position for canceled booking

Load Testing:-

There are a total of 3000 trains, with an average of 30 stations in each path, accounting to around 1 Lakh records in the path table. Also, we'll be storing seat and waiting_list info for each train on each day. Upon cancellation of a ticket in a train having a waiting list, we need to update all the passenger entries in the waiting list below the canceled ticket, for this we need roughly 100 bookings per train, which gives 3 Lakh records.

If multiple tickets are booked simultaneously we will be managing it using threads in a similar fashion to neo4j, and this would be an automatically triggered process.

We will use Google Analytics to measure our websites performance, few key performance indicators (KPIs) (i.e metrics) are :-
1.Measure Your Audience's Reach and Impact
2.Identifying Traffic Sources
3.Measure Average Session Time and Bounce Rate

We will use dotcom-tool for testing our website's response time.