1**. Testing Approaches**

As the whole software development process is divided into iterations (2 weeks each) in AGILE Model , the testing activities should be divided in the same way to be consistent with the development process.

The scope of testing includes testing the new NRB (National Rail Booking) azure UI , functionality, and features, as well as ensuring the retention of all user data. The objective is to launch a stable, user-friendly, and scalable system that can handle 1 lakh concurrent users on both Ui and mobile. We will be testing backend APIs and fronted UI with mobile and chatbot testing as it should resolve queries of all concurrent user with new Azure platform.

Testing types:

**1.Persona Based Testing:**

* We will be testing new NRB Azure UI and mobile applications with the mindset of end user.
* We will be testing chatbot with diff edge case and weird question like an end user can give.

2. **Functional and Automation testing: We need exhaustive testing as its anew Ui and can have major bugs**

**UI/Frontend: Need to test each and every boundary case**

* **Login screen: we should be able to sign up and login in the portal with valid credentials .**
* **Booking home screen should be visible with all relevant UI details.**
* **Execute all small, medium and high level test cases that cover all boundary cases for railway ticket booking .**
* **Automated all ui possible scenarios using selenium, that should be completed within sprint and should go hand in hand .**

**API testing: Need to test for backend stability.**

Manual testing of APIs is going to be performed through Postman or any other API testing compatible tool.

Automation of all APis need to be done using rest assured and need to be triggered on every successful deployment to check compatibility of portal.

**3. Localization: Localization testing has to be done by verifying that accurate position of train is being shown at different locations.**

**4.Performance: We need to do performance testing using J meter as we have huge user around 1 lakh to test load beared by of portal**

**5. Security testing: Verify the website's authentication and authorization process and use data encryption to protect sensitive information.**

**6. Compatibility testing: Verify the website works well across different browsers and devices. So that it can be accessible for all users.**

**7. Mobile Testing ( ) : Test all below cases on both android and IOS as portal need to be compatible on both.**

* **Login screen and home page : we should be able to sign up and login in the portal with valid credentials and valid boking page should be visible.**
* **Execute all small ,medium and high level test cases that cover all boundary cases for railway ticket booking .**
* **Automated all Mobile automation possible scenarios using Appium , that should be completed within sprint and should go hand in hand .**
* **All Mobile Automation test cases need to be triggered after every epic completion .**

2. KPIs

1. No of bugs found in every sprint of agile will determine quality of development.  
2. Automation status of all 3 ui, Api and mobile will determine readiness for production release.