ST INNOVATIVE PROJECT

ON

MTNL WEBSITE TESTING

Under the guidance of

Dr. Ruchika Malhotra

(HOD, SE, DTU)

Department of Computer Science

Delhi Technological University, Delhi

Submitted By:

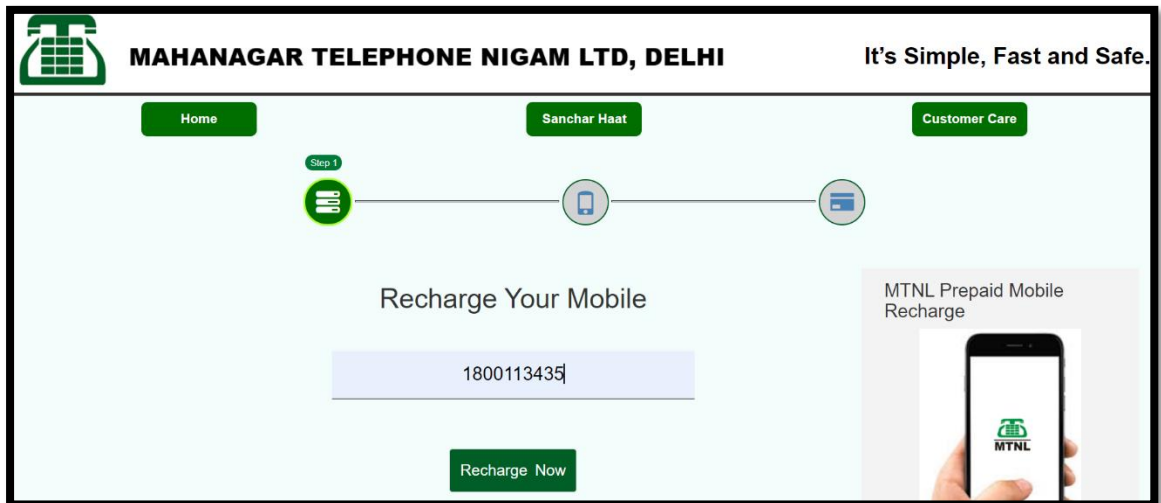**Suman Nandi**

(2k20/SWE/23)

TABLE OF CONTENTS

FUNCTIONAL TESTING

TESTING MOBILE RECHARGE FACILTY OF MTNL WEBSITE

Test Case	Description	Enter Mobile Number	Select Recharge	Expected Output	Actual Output
TC 1	Entering Toll free Number of MTNL Delhi	1800113435	Top Up	Should throw an error as these are the numbers provided to companies and they don't require a recharge	Successfully navigates to next page and asks the user to select the top up plan.
TC2	Entering 9 digits in mobile number field	987654321	-	Should throw an error as it is not a valid mobile number	Throws an error and tells the user to enter the 10-digit mobile number without any prefixes.
TC3	Entering 10-digit mobile number of any other service provider	7010966404	Top Up	Should throw an error as it is not an MTNL registered mobile sim.	Successfully navigates to next page and asks the user to select the top up plan.

SCREENSHOTS OF THE ACTUAL OUTPUT:

1. **Test Case 1: Accepting Toll Free Numbers for Recharge**

2. Test Case 3: Accepting Numbers of other Mobile Service Providers

Step 3

You Entered:

7010966404

Recharge Amount

₹ 750

Back   Continue

Your mobile no. will be recharged as per the following information. Please click on **'Pay Now'** to confirm and complete your payment.

Your Mobile No.	7010966404
Scheme Name	Topup
MRP (₹)	750
Talk Time Value	790
Validity in days	0
Your Region	Delhi
Payment Amount(₹)	750

- You will be redirected to payment gateway to complete the payment. For all successful payments, a recharge will be initiated on your no. and you will receive a SMS confirmation within 15 minutes.
- Your transaction is processed through a secure 128 bit https internet connection based on secure socket layer technology.

MTNL Prepaid Mobile Recharge

MTNL

Powered by

NAVIGATION TESTING

TEST CASES FOR MTNL WEBSITE:

Test Case ID	Description	Input	Expected Output	Actual Output
TC1	Check all links on each web page	Link 1= Landline (Pay Now) Link 2= Broadband (Pay Now) Link 3= FTTH (Pay Now) Link 4= Mobile (Pay Now) Link 5= Toll Free Services (Pay Now) Link 6= Landline (Book Now) Link 7= Broadband (Book Now) Link 8= FTTH (Book Now) Link 9= Mobile (Book Now) Link 10= Toll Free Services (Book Now) Link 11= Trump (Recharge) Link 12= Mobile (Recharge) Link 13= Broadband (Recharge) Link 14= Landline (Complaints) Link 15= Broadband (Complaints) Link 16= FTTH (Complaints) Link 17= Mobile (Complaints) Link 18= About Us Link 19= Mission (Corporate Info) Link 20= Vision (Corporate Info) Link 21= History (Corporate Info) Link 22= Board of Directors (Corporate Info) Link 23= Corporate Info Link 24= Tenders (Corporate Info) Link 25= Public Notices (Corporate Info) Link 26= Citizen Charter (Corporate Info) Link 27= Growth and Achievement (Corporate Info) Link 28= Common Charter (Corporate Info) Link 29= Citizen Charter (Corporate Info) Link 30= CSR (Corporate Info) Link 31= MTNL Calendar (Corporate Info) Link 32= Reports (Financial) Link 33= Closure Window (Financial) Link 34= Compliance Certificate (Financial) Link 35= Investor's Complaint (Financial) Link 36= Financial Results (Financial) Link 37= Shareholding Pattern (Financial) Link 38= Policies (Financial) Link 39= Right to Information Act 2005 in Full Detail Link 40= Right to Information Act 2005 under sec 4(1)(b) Link 41= List of PIO/APIO/A.A	All Links Should Work properly	**Link 44= Mobile Recharge:** On clicking this link, it says that the requested URL is Not Found on the server. **Link 45= Mobile Complaint:** On clicking this link, it says that the requested URL is Not Found on the server. **Link 46= Broadband Service Request:** On Clicking this link, it says that This service is Temporarily Disabled. **Link 48= Landline Shifting:** On Clicking this link, it says that This service is Temporarily Disabled.

		Link 42= Panel of Advocates Link 43= Panel of Arbitrators Link 44= Mobile Recharge Link 45= Mobile Complaint Link 46= Broadband Service Request Link 47= Broadband Plan Change Link 48= Landline Shifting		8

SCREENSHOTS OF THE ACTUAL OUTPUT:

1. **Link 44= Mobile Recharge**
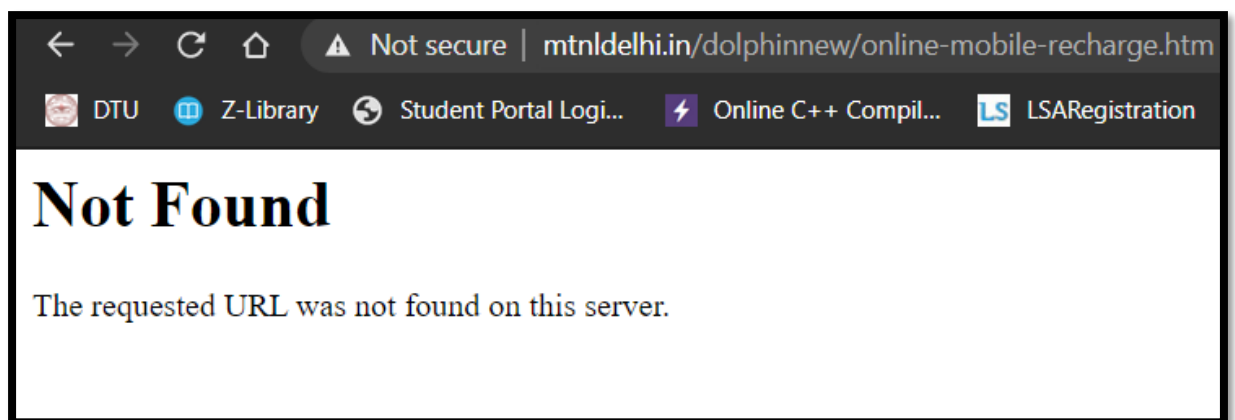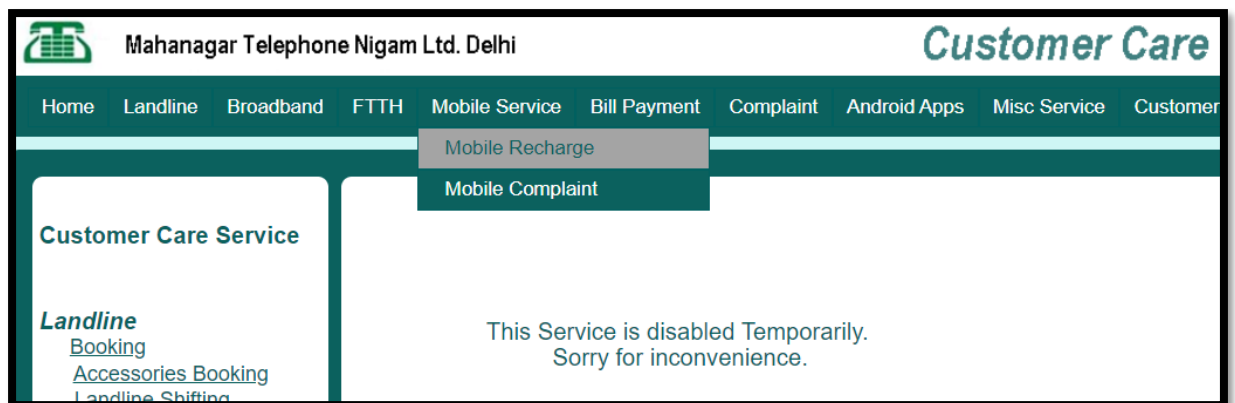
2. Link 45= Mobile Complain
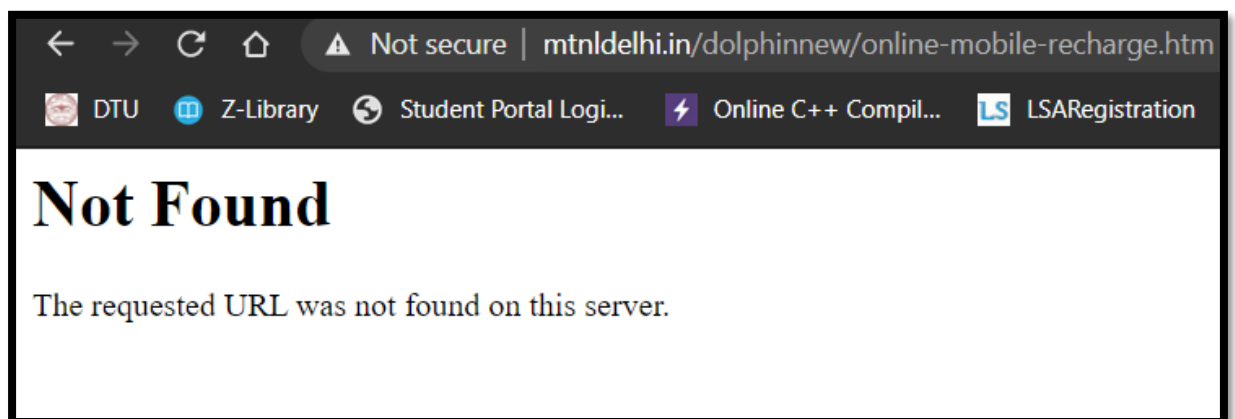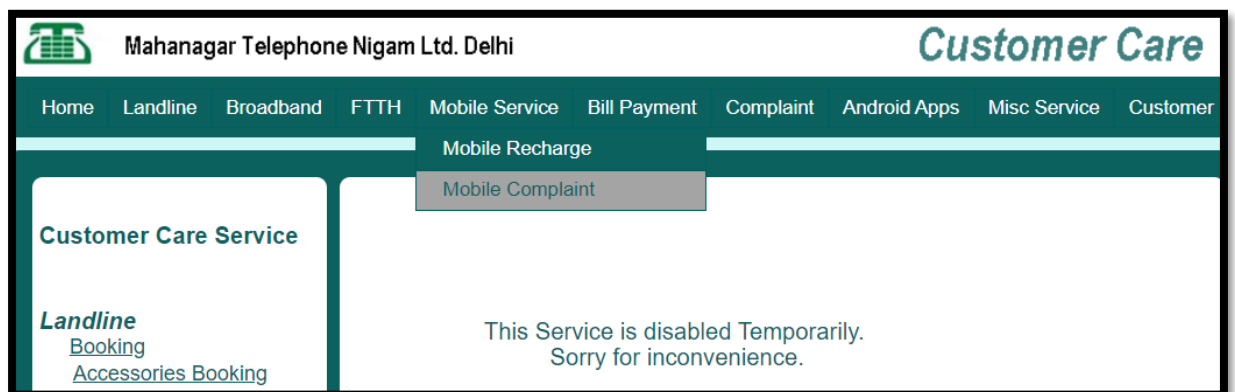
3. Link 46= Broadband Service Request

4. Link 48= Landline Shifting

CROSS-BROWSER TESTING

BRWOSER COMPATIBILITY MATRIX FOR MTNL WEBSITE:

Platform	Microsoft Edge	Firefox	Chrome	Opera
Windows	Yes	Yes	Yes	Yes
Android	Yes	Yes	Yes	Yes
IOS	Yes	Yes	Yes	Yes

FORM BASED TESTING

MTNL Website

Test Cases for Registration of a new LANDLINE/ BROADBAND/ FTTH CONNECTION:

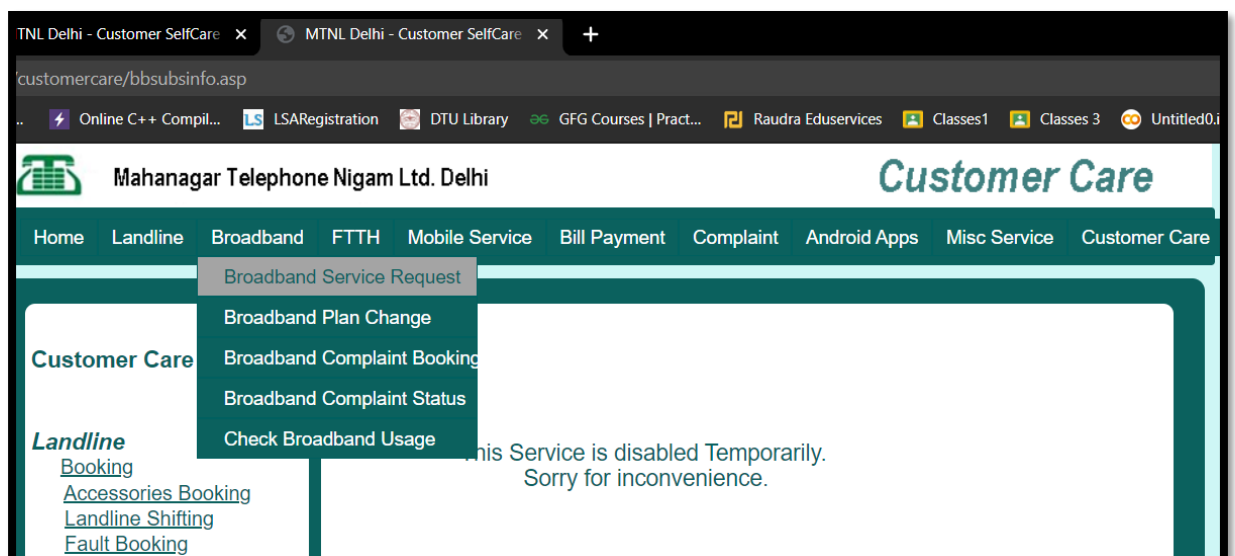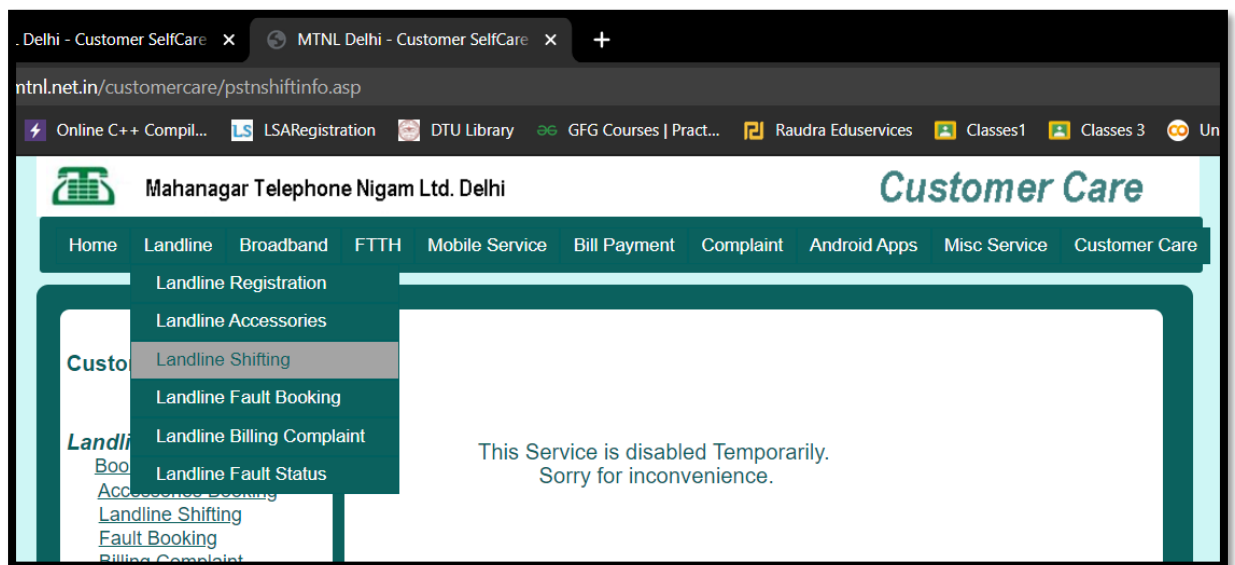| Test Case	Description	Service Type Field Value	Purpose Field Value	First Name Field Value	Last Name Field Value	Locality Field Value	Pin Field Value	City Field Value	Mobile Number	Email ID	Expected Output	Actual Output
TC1	NOT Selecting the Service type	Select	Residence	Shyam	Kundan	Noida	201301	Delhi	9876543210	abc@gmail.com	It should throw an error as it is a mandatory field	Throws an error stating to select the Service type
TC2	NOT Selecting Purpose	Landline	Select	Ashok	Mishra	Noida	201309	New Delhi	8998789977	abc@gmail.com	It should throw an error as it is a mandatory field	Throws an error stating to select the Purpose
TC3	Entering '-' in the first name	Broadband	Residence	-	Kundan	Noida	201301	Delhi	8998789977	abc@gmail.com	It should throw an error as first name of a person should not start with symbol.	No error is Displayed
TC 4	Entering '-' in the last name	FTTH (Fiber to Home)	Business	-	-	Noida	201301	Delhi	8998789977	abc@gmail.com	Should throw an error as both first name and last name should not be same.	No error is Displayed
TC5	Entering Random locality	Broadband	Business	Ashok	Mishra	sdfs	201301	Delhi	8998789977	abc@gmail.com	Should throw an error as locality does not exist	No error is Displayed
TC6	Entering wrong Pin code	Broadband	Business	Ashok	Mishra	Gurgaon	201	Delhi	8998789977	abc@gmail.com	Should throw an error as pin code should be of 6 digits	Throws an error stating to enter 6-digit pin number
TC7	Entering wrong email ID								8998789977	-@gmail.com	Should Throw an error as email ID does not start with a '-'	No Error is displayed.

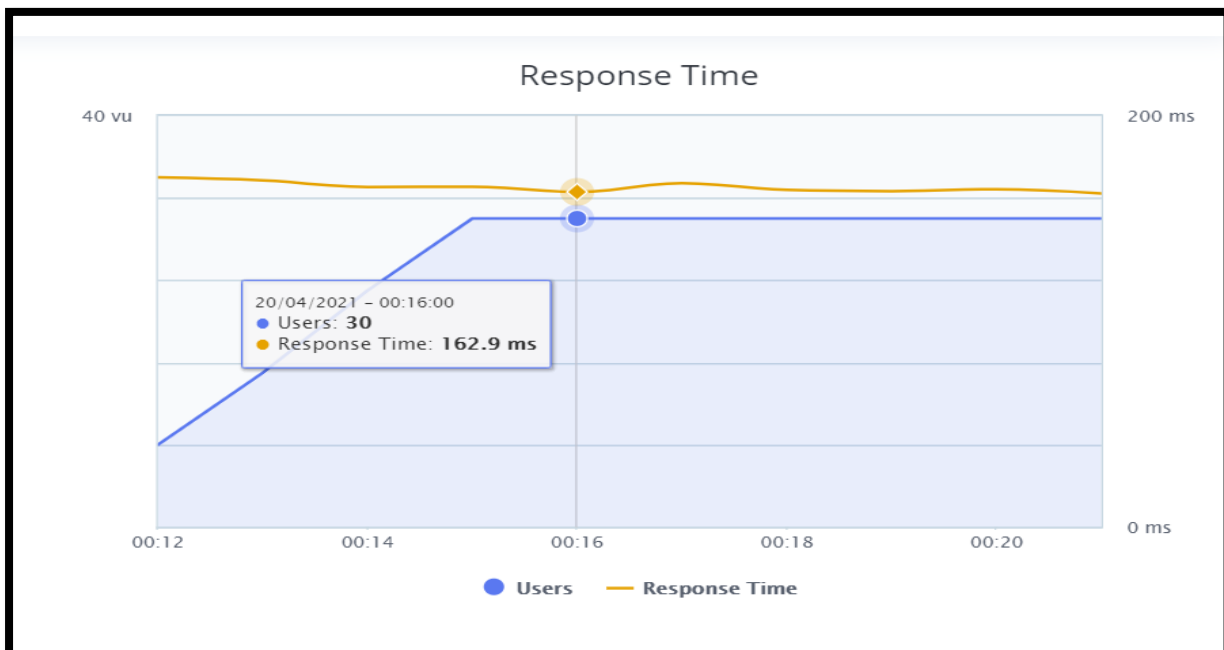<p align="center">**PERFORMANCE TESTING**</p>

MTNL WEBSITE:

LOAD TEST GRAPGH:
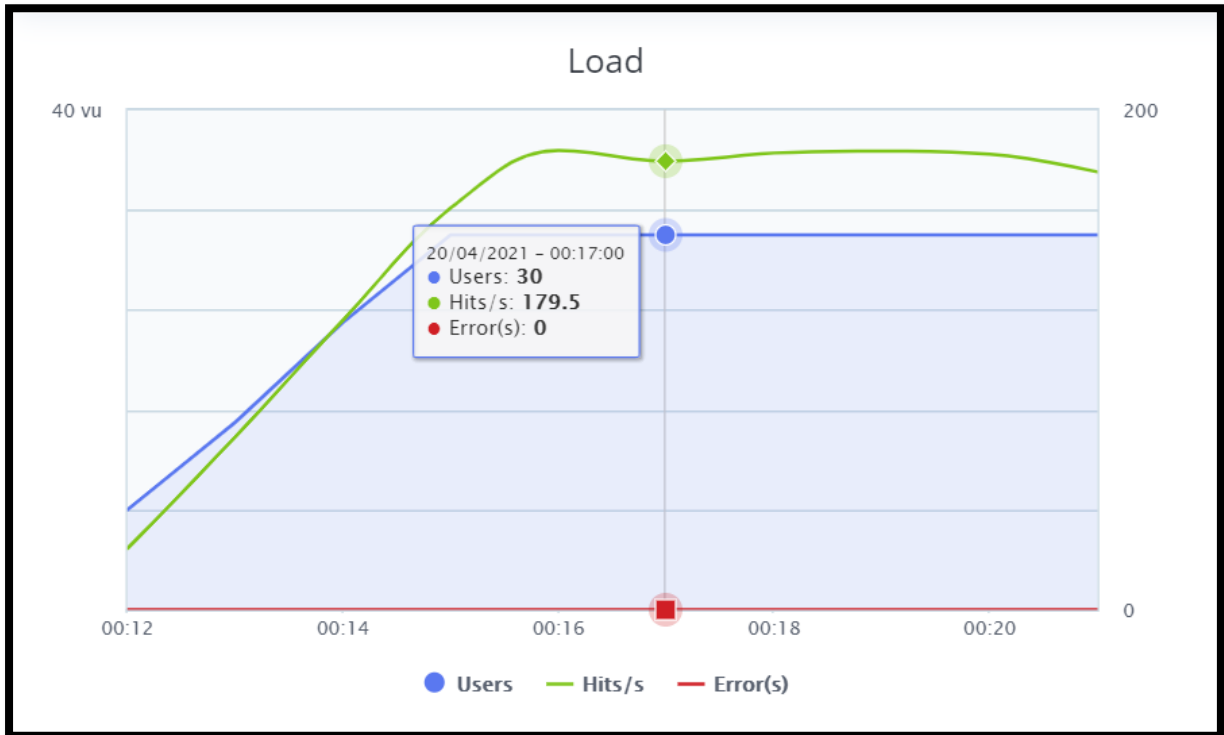
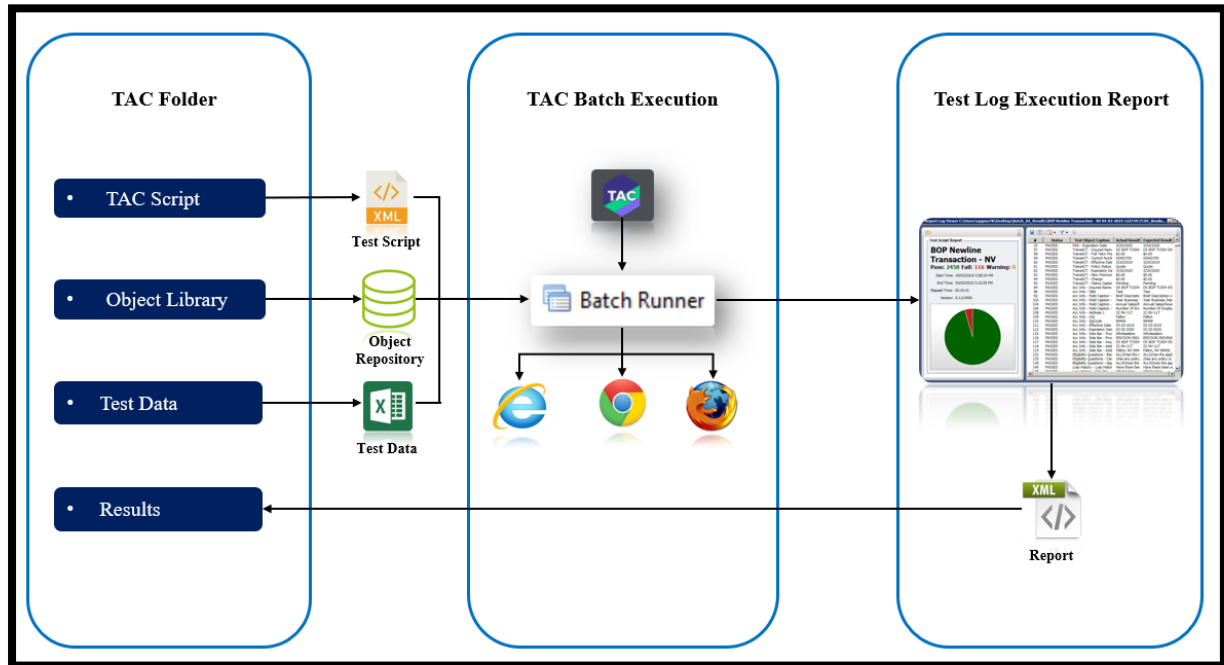The average throughput achieved is 146.71 Hits/sec.

RESPONSE TIME GRAPH:

The average response time achieved is 164.52 millisecond.

DATABASE TESTING

MTNL WEBSITE:

TOOL USED: DUCKCREEK TEST AUTOMATION **(TAC)**

TAC FRAMEWORK:

DATABASE TESTING RESULTS:
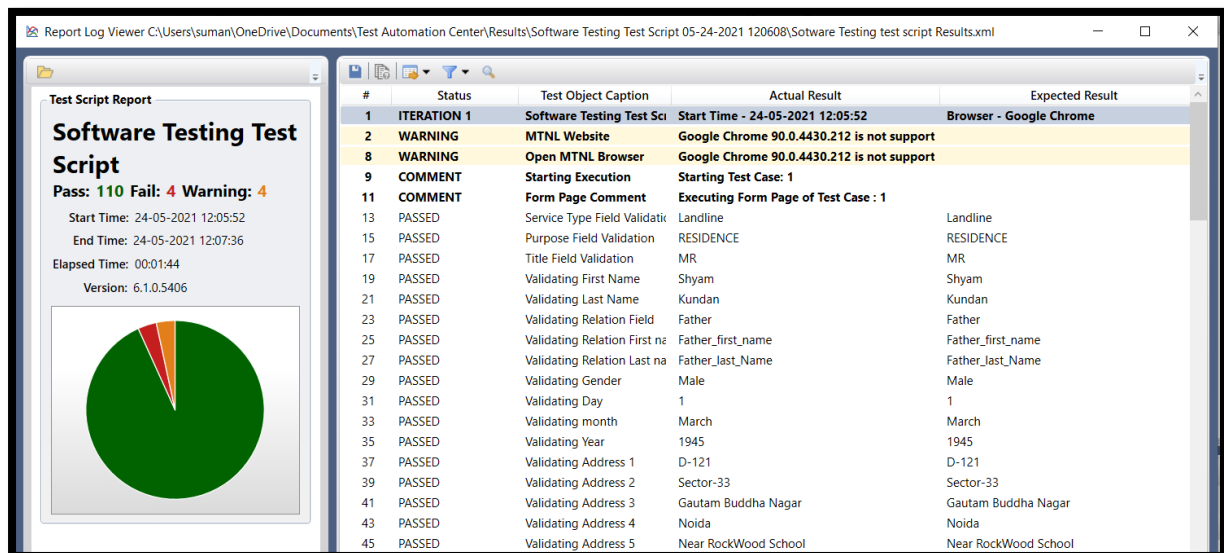
SECURITY TESTING

MTNL WEBSITE:

As we can see the MTNL Website is NOT Secure.

Reasons for Website not Secure:

- If a website's URL begins with HTTP, it means the connection is insecure, which triggers the "Not Secure" warning.

Possible Solutions to make it Secure are as follows: -

- By installing an SSL (Secure Socket Layers) Certificate.
- By forcing HTTPS

CONCLUSION

After rigorous testing of the MTNL Website following faults were found. The List of faults are as follows:
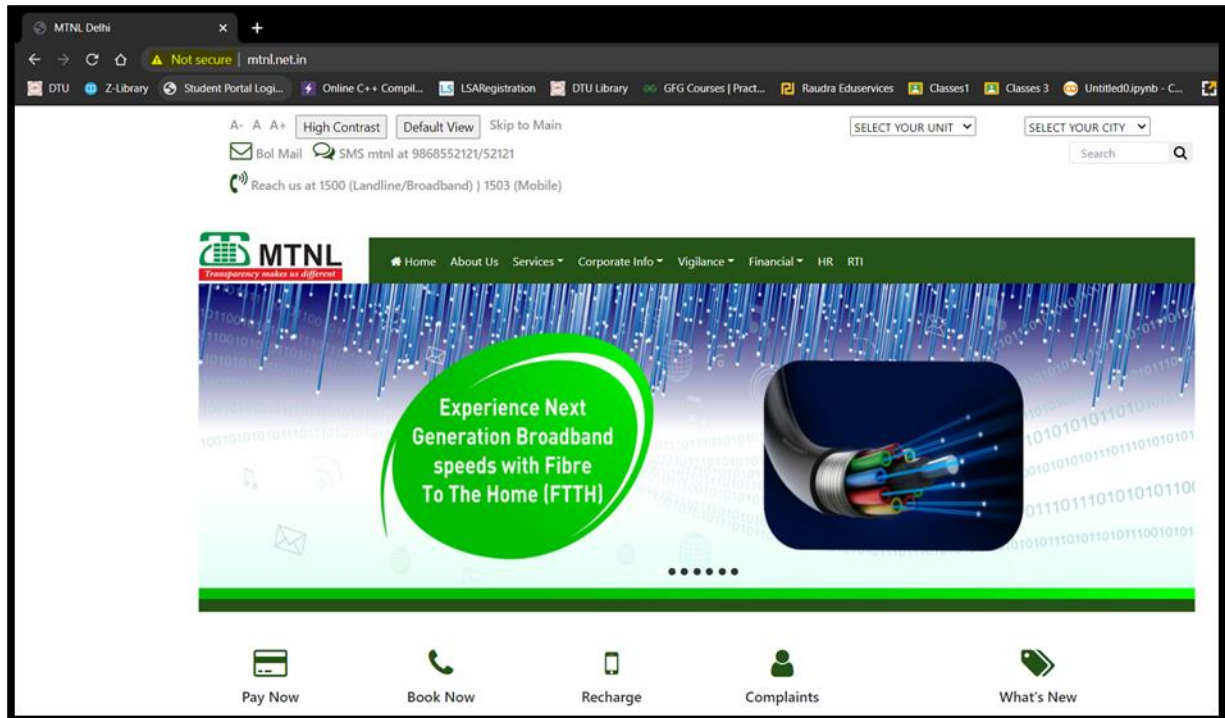
1. **FUNCTIONAL TESTING FAULTS:**

    1.1. Accepting Toll Free Numbers for Recharge **(Severity: Medium)**
    1.2. Accepting Mobile Numbers of other Mobile Service Providers **(Severity: Medium)**

2. **NAVIGATION TESTING FAULTS:**

    2.1. Dead Link Found: **Mobile Recharge** (Severity: **HIGH)**
    2.2. Dead Link Found: **Mobile Complaint** (Severity: **HIGH)**
    2.3. Dead Link Found: **Broadband Service Request** (Severity: **HIGH)**
    2.4. Dead Link Found: Landline Shifting (Severity: **HIGH)**

3. **FORM BASED TESTING FAULTS:**

    3.1. Accepting blanks in First name and last name (Severity: **HIGH)**
    3.2. Accepting Symbols in Locality Field (Severity: **HIGH)**
    3.3. Accepting invalid Email ID (Severity: **HIGH)**

4. **DATABASE TESTING FAULTS:**

    4.1. Customer Address is not saved. Address 3 linking is not done. (Severity: **HIGH)**
    4.2. Service Type is not displayed on selecting 'FTTH'. (Severity: **HIGH)**

SUMMARY:

FAULTS SEVERITY	COUNT
MEDIUM	2
HIGH	9
TOTAL:	**11**