

LP-II STQA

Mini Project-2

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Date- 29/10/20

Output-

Mini-Project 2:

Create a small web-based application by selecting relevant system environment / platform and programming languages. Narrate concise Test Plan consisting features to be tested and bug taxonomy. Narrate scripts in order to perform regression tests. Identify the bugs using Selenium Web Driver and IDE and generate test reports encompassing exploratory testing.

SYSTEM-

BBQHouse- BBQ House is an online web application for a restaurant. Customers can register and login to view the menu, place orders or even book tables for a given date. The user can experience table booking and food ordering facilities while sitting at home. Details about restaurant are also displayed with different branches and history.

1. Features to be tested - (Complete test plan document attached separately)

TEST CASE TABLE- Tests to be executed

Test Case Id	Test Case Name	Objective	Description	Expected Result
SeleniumTest1	LoginTest	To check the login functionality of app	Run the web app to check the login page functionality.	Test case passes on providing valid input and app navigates to Index page
SeleniumTest2	FailedLoginTest	To check the output when incorrect information is entered	Checks for the test data of user in the database.	Login failed

SeleniumTest3	SignupTest	To check the working of signup and registration page	Test explores the sign up page features and validates the data functions.	Successful signup and registration of new user details into the table.
SeleniumTest4	OrderTest	To explore the working of food ordering page	Explores the navigations on ordering page and various features like item selection, final bill calculation.	Successful able to place orders
SeleniumTest5	TableBookingTest	To explore the working of table booking feature of the web app	Explores the navigations on table booking page and features like date selection, number of guests etc	Successfully able to book a table

			guests etc	
SeleniumTest6	NavigationTest	To check the complete navigation of the app using automated test scripts	Explore the full functionality of the web app from login, ordering to checkout	Smooth working and exploration of the app.
TestSuite1	FinalTestSuite	Test suite which runs all test cases one by one	Run all the tests for the iteration on the Selenium server.	Most of test cases (>85%) passed. Run using Selenium IDE and scripts and report using TestNG.

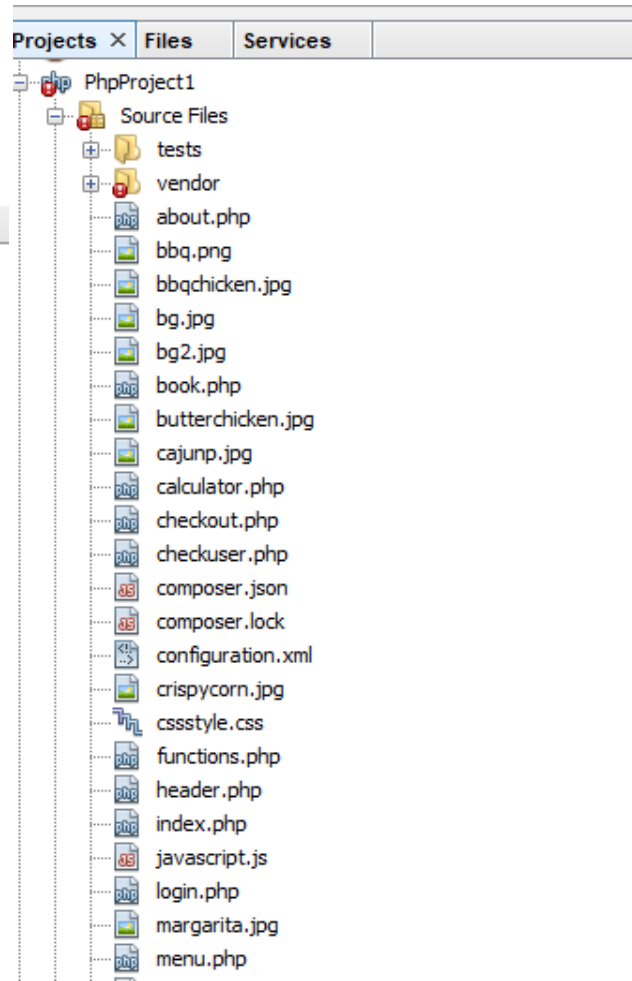
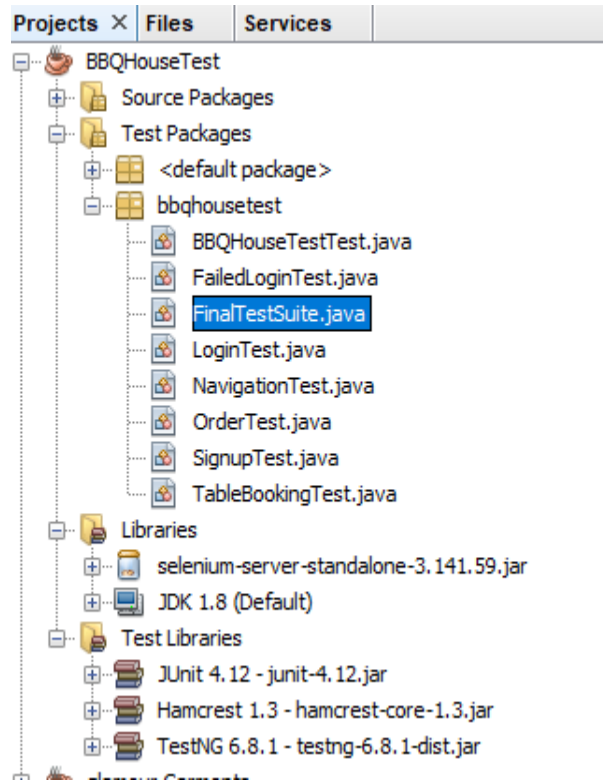
2. Bug taxonomy

INTERFACE BUGS - Faulty GUI and navigations	Low	Low	Make UI constant so it looks same on different devices. Display of proper error messages. Check Swing component's event action listener code. Make sure that alerts that are opened during navigation are handled properly.
INTEGRATION AND SYSTEM BUGS- Improper system setup	Medium	Medium	Install required JDK version 1.8, JDBC connector. Make sure that ports required for selenium server and apache server are free.
TEST AND TEST DESIGN BUGS- Unsuccessful testing of functionalities	Medium	Medium	Install proper testing tools- Install relevant Chrome drivers, Selenium IDE plugins, Selenium standalone server, TestNG.
Non-availability of Independent Test environment and accessibility	Medium	High	Due to non availability of the environment, the schedule gets
			impacted and will lead to delayed start of Test execution.
Delayed Testing Due To new Issues	Medium	High	During testing, there is a good chance that some "new" defects may be identified and may become an issue that will take time to resolve. Find a suitable method to run the selenium scripts for the project. PHP export option is not available for newer versions of Selenium IDE, so convert into Java and run tests in a designated test project to explore the web app functionality.

4.2. Test Risks and Mitigation Factors- Bug Taxonomy

Risk	Prob.	Impact	Mitigation Plan
DATA BUGS- User sensitive data loss	High	High	<ul style="list-style-type: none">• Delete current user specific cookie data after logout• User should be able to update only his/her data
FUNCTIONALITY BUGS- Buttons fail to access proper data	Medium	High	<ul style="list-style-type: none">• Check the connection to database.• Ensure proper functional working through unit tests
CODING BUGS- Database connection failure	Medium	Critical	Ensure proper jdbc connectors are present and database login details are accurate.

3. Web app code structure



4. Testing-

Selenium IDE for Chrome Browser

Selenium IDE - BBQ_House

Project: BBQ_House

Tests +

Search tests...

failedLogin

login

loginTest

navigation

order

signup

tableBooking

http://localhost/PhpProject1/index.php

	Command	Target	Value
7	type	id=username	SS_31264
8	click	id=password	
9	click	id=password	
10	double click	id=password	
11	type	id=password	password
12	click	id=submit	

Command open

Target http://localhost/PhpProject1/index.php

Value

Description

Log Reference

18. click on id=guests OK 17:51:10

19. click on id=date OK 17:51:10

20. type on id=date with value 2020-10-31 OK 17:51:11

21. click on id=timeslot OK 17:51:11

22. select on id=timeslot with value label=7 pm OK 17:51:11

23. click on id=timeslot OK 17:51:11

Generate and run Selenium exploratory test

BBQ HOUSE (SG_41270)

localhost/PhpProject1/checkout.php

Selenium IDE - BBQ_House

Project: BBQ_House

Tests +

Search tests...

Run current test Ctrl+R

http://localhost/PhpProject1/index.php

	Command	Target	Value
9	click	id=password	
10	double click	id=password	
11	type	id=password	password
12	click	id=submit	
13	click	linkText=click here	
14	click	linkText=Checkout	

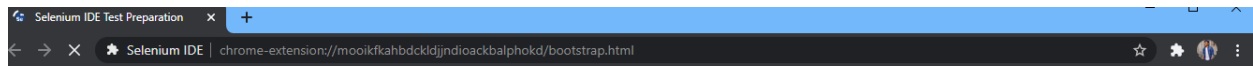
failedLogin

login

loginTest

navigation

order



Preparing to run your test

4. Export the test scripts

Project: BBQ_House

Tests ▾ +

Search tests...

failedLogin

login

loginTest

naviga

order

signup

tableB

Rename

Duplicate

Delete

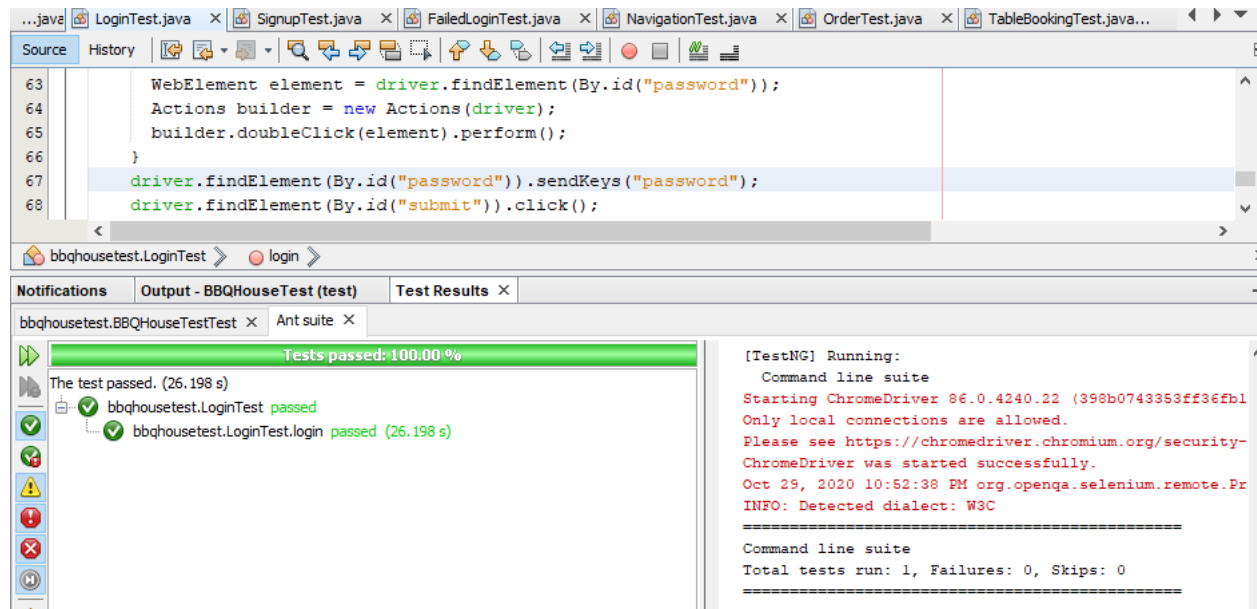
Export

Desktop > BE Sem 1 > LP-II > STQA > STQA-2 Tests

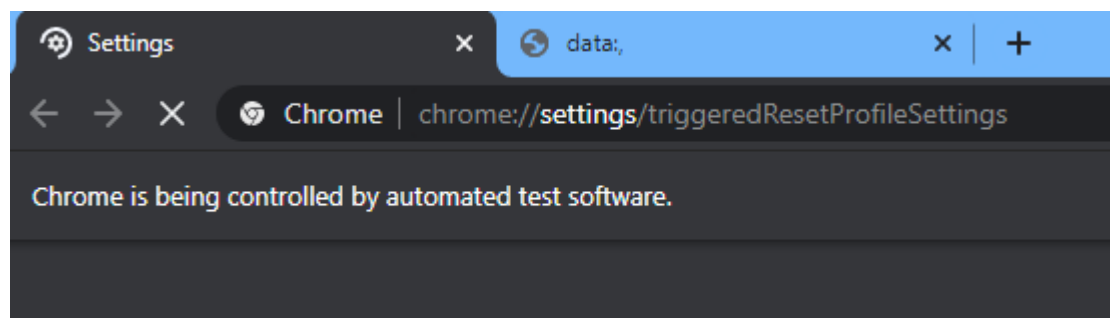
Name	Date modified	Type	Size
BBQ_House.side	10/29/2020 7:59 PM	SIDE File	90 KB
FailedLoginTest	10/29/2020 6:11 PM	JAVA File	3 KB
Login2TestTest	10/29/2020 4:05 PM	JAVA File	3 KB
LoginTest	10/29/2020 6:11 PM	JAVA File	3 KB
LoginTestTest	10/29/2020 3:52 PM	JAVA File	3 KB
NavigationTest	10/29/2020 6:11 PM	JAVA File	6 KB
OrderTest	10/29/2020 6:11 PM	JAVA File	5 KB
Selenium IDE - BBQ_House	10/29/2020 4:03 PM	Microsoft Edge H...	104 KB
SignupTest	10/29/2020 7:59 PM	JAVA File	3 KB
TableBookingTest	10/29/2020 6:10 PM	JAVA File	4 KB

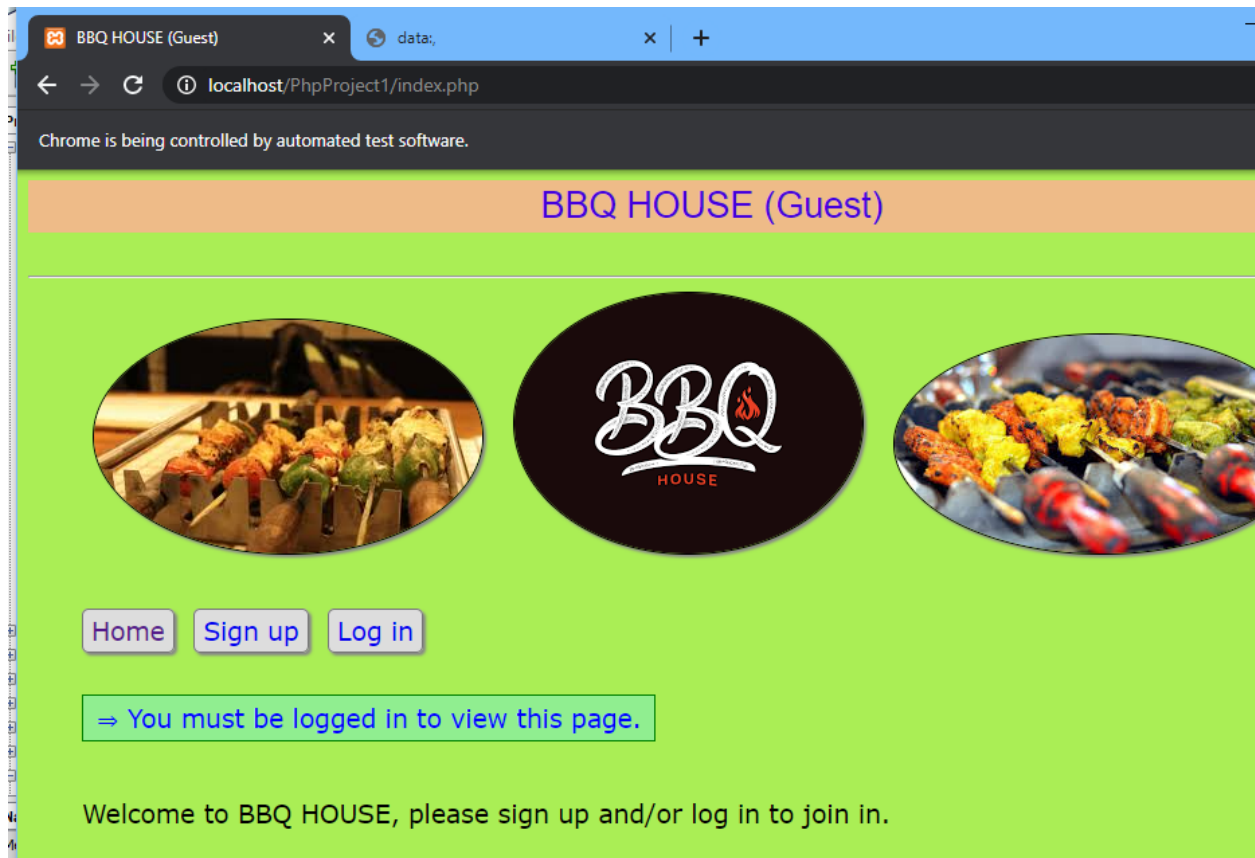
5. Create NetBeans project for regression testing and running selenium scripts on a standalone server

First with generated script



Now regression test by changing code inputs





Result for wrong data- Login fails

```
64 Actions builder = new Actions(driver);
65 builder.doubleClick(element).perform();
66 }
67 driver.findElement(By.id("password")).sendKeys("passssword");
68 driver.findElement(By.id("submit")).click();
69 driver.findElement(By.linkText("click here")).click();
```

bbqhousetest.LoginTest > login >

Notifications Output - BBQHouseTest (test) Test Results X

bbqhousetest.BBQHouseTestTest X Ant suite X

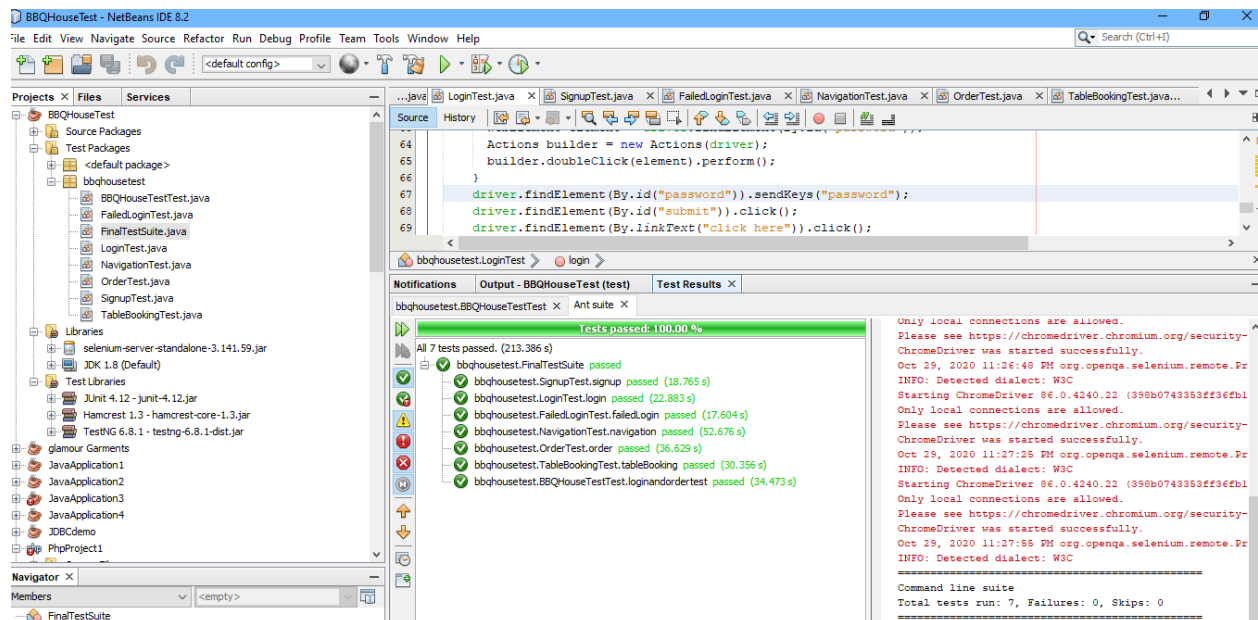
Tests passed: 0.00 %

No test passed, 1 test failed. (41.036 s)

bbqhousetest.LoginTest Failed

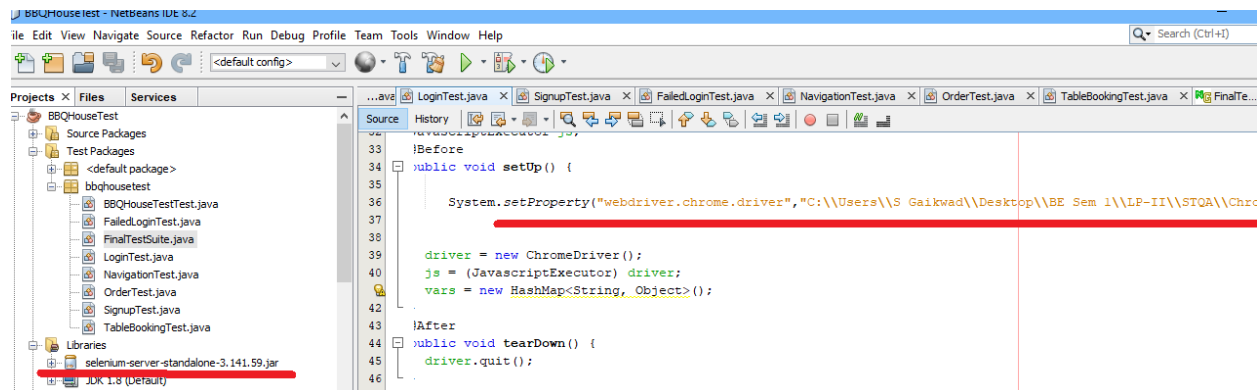
[TestNG] Running:
Command line suite
Starting ChromeDriver 86.0.4240.22 (398b0743353ff36fb1
Only local connections are allowed.
Please see https://chromedriver.chromium.org/security-
ChromeDriver was started successfully.
[1603993790.529][WARNING]: Timed out connecting to Chr
Oct 29, 2020 11:20:00 PM org.openqa.selenium.remote.Pr
INFO: Detected dialect: W3C
[
VerboseTestNG] at org.openqa.selenium.remote.http.W3C
Command line suite
Total tests run: 1, Failures: 1, Skips: 0

6. Junit/ TestNG test suite- Run all the tests and generate reports - Automated exploratory testing using Selenium



Make sure that selenium-standalone-server jar file is included in library jars.

And also ensure that proper web driver(Chrome or Firefox) is included.



7. Store the TestNG reports in pdf file and Selenium IDE web page.

```
[TestNG] Running:
  Command line suite

[VerboseTestNG] RUNNING: Suite: "bbqhousetest.FinalTestSuite" containing
"0" Tests (config: null)
[VerboseTestNG] INVOKING: "bbqhousetest.FinalTestSuite" -
bbqhousetest.SignupTest.signup()
Starting ChromeDriver 86.0.4240.22
(398b0743353ff36fblb82468f63a3a93b4e2e89e-refs/branch-heads/4240@{#378})
on port 2615
Only local connections are allowed.
Please see https://chromedriver.chromium.org/security-considerations for
suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully.
Oct 29, 2020 8:03:17 PM org.openqa.selenium.remote.ProtocolHandshake
createSession
INFO: Detected dialect: W3C
[VerboseTestNG] PASSED: "bbqhousetest.FinalTestSuite" -
bbqhousetest.SignupTest.signup() finished in 16775 ms
[VerboseTestNG] INVOKING: "bbqhousetest.FinalTestSuite" -
bbqhousetest.LoginTest.login()
Starting ChromeDriver 86.0.4240.22
(398b0743353ff36fblb82468f63a3a93b4e2e89e-refs/branch-heads/4240@{#378})
on port 2385
Only local connections are allowed.
Please see https://chromedriver.chromium.org/security-considerations for
suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully.
Oct 29, 2020 8:03:32 PM org.openqa.selenium.remote.ProtocolHandshake
createSession
INFO: Detected dialect: W3C
[VerboseTestNG] PASSED: "bbqhousetest.FinalTestSuite" -
bbqhousetest.LoginTest.login() finished in 21496 ms
[VerboseTestNG] INVOKING: "bbqhousetest.FinalTestSuite" -
bbqhousetest.FailedLoginTest.failedLogin()
Starting ChromeDriver 86.0.4240.22
(398b0743353ff36fblb82468f63a3a93b4e2e89e-refs/branch-heads/4240@{#378})
on port 41264
Only local connections are allowed.
Please see https://chromedriver.chromium.org/security-considerations for
suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully.
Oct 29, 2020 8:03:54 PM org.openqa.selenium.remote.ProtocolHandshake
createSession
INFO: Detected dialect: W3C
[VerboseTestNG] PASSED: "bbqhousetest.FinalTestSuite" -
bbqhousetest.FailedLoginTest.failedLogin() finished in 15785 ms
[VerboseTestNG] INVOKING: "bbqhousetest.FinalTestSuite" -
bbqhousetest.NavigationTest.navigation()
Starting ChromeDriver 86.0.4240.22
(398b0743353ff36fblb82468f63a3a93b4e2e89e-refs/branch-heads/4240@{#378})
on port 13697
Only local connections are allowed.
```

```

Please see https://chromedriver.chromium.org/security-considerations for
suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully.
Oct 29, 2020 8:04:09 PM org.openqa.selenium.remote.ProtocolHandshake
createSession
INFO: Detected dialect: W3C
[VerboseTestNG] PASSED: "bbqhousetest.FinalTestSuite" -
bbqhousetest.NavigationTest.navigation() finished in 43787 ms
[VerboseTestNG] INVOKING: "bbqhousetest.FinalTestSuite" -
bbqhousetest.OrderTest.order()
Starting ChromeDriver 86.0.4240.22
(398b0743353ff36fbb82468f63a3a93b4e2e89e-refs/branch-heads/4240@{#378})
on port 35942
Only local connections are allowed.
Please see https://chromedriver.chromium.org/security-considerations for
suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully.
Oct 29, 2020 8:04:56 PM org.openqa.selenium.remote.ProtocolHandshake
createSession
INFO: Detected dialect: W3C
[VerboseTestNG] PASSED: "bbqhousetest.FinalTestSuite" -
bbqhousetest.OrderTest.order() finished in 32996 ms
[VerboseTestNG] INVOKING: "bbqhousetest.FinalTestSuite" -
bbqhousetest.TableBookingTest.tableBooking()
Starting ChromeDriver 86.0.4240.22
(398b0743353ff36fbb82468f63a3a93b4e2e89e-refs/branch-heads/4240@{#378})
on port 28796
Only local connections are allowed.
Please see https://chromedriver.chromium.org/security-considerations for
suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully.
Oct 29, 2020 8:05:26 PM org.openqa.selenium.remote.ProtocolHandshake
createSession
INFO: Detected dialect: W3C
[VerboseTestNG] PASSED: "bbqhousetest.FinalTestSuite" -
bbqhousetest.TableBookingTest.tableBooking() finished in 24078 ms
[VerboseTestNG] INVOKING: "bbqhousetest.FinalTestSuite" -
bbqhousetest.BBQHouseTestTest.loginandordertest()
Starting ChromeDriver 86.0.4240.22
(398b0743353ff36fbb82468f63a3a93b4e2e89e-refs/branch-heads/4240@{#378})
on port 1080
Only local connections are allowed.
Please see https://chromedriver.chromium.org/security-considerations for
suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully.
Oct 29, 2020 8:05:50 PM org.openqa.selenium.remote.ProtocolHandshake
createSession
INFO: Detected dialect: W3C
[VerboseTestNG] PASSED: "bbqhousetest.FinalTestSuite" -
bbqhousetest.BBQHouseTestTest.loginandordertest() finished in 36844 ms
[VerboseTestNG]
[VerboseTestNG] =====
[VerboseTestNG] bbqhousetest.FinalTestSuite
[VerboseTestNG] Tests run: 7, Failures: 0, Skips: 0

```

```

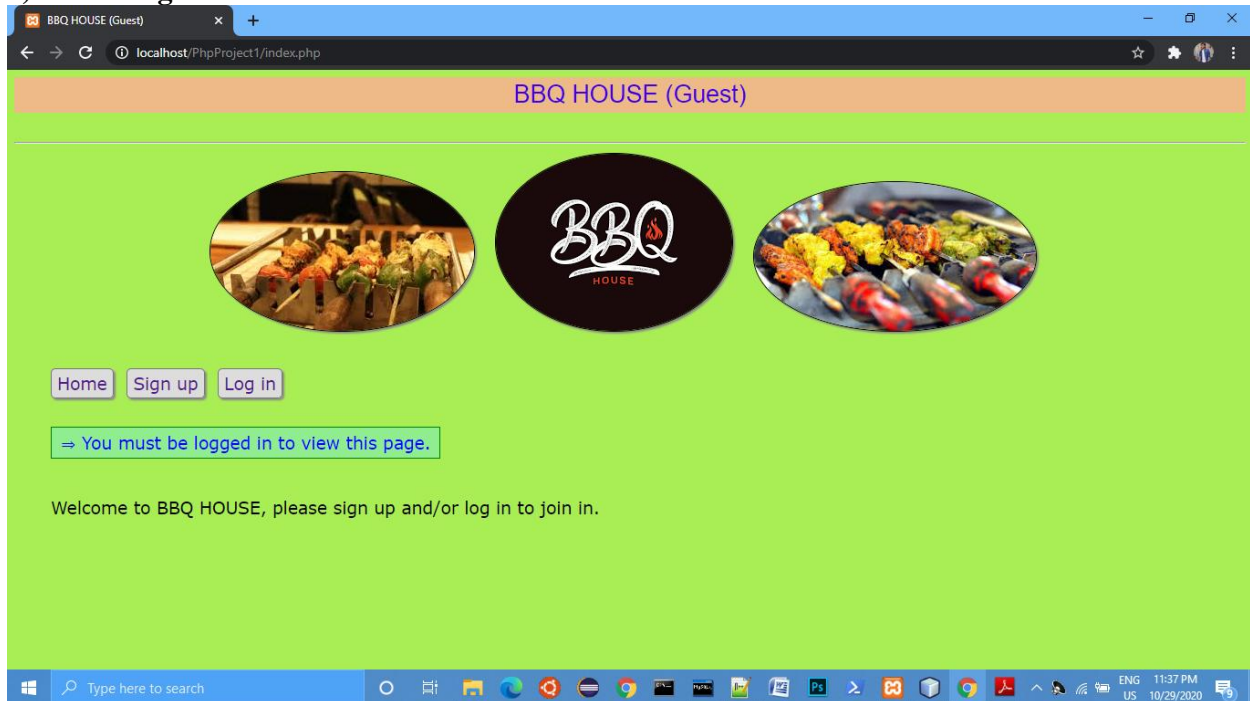
[VerboseTestNG] =====
=====
Command line suite
Total tests run: 7, Failures: 0, Skips: 0
=====

Deleting directory
C:\Users\SGAIKW-1\AppData\Local\Temp\bbqhousetest.FinalTestSuite
test:
BUILD SUCCESSFUL (total time: 3 minutes 13 seconds)

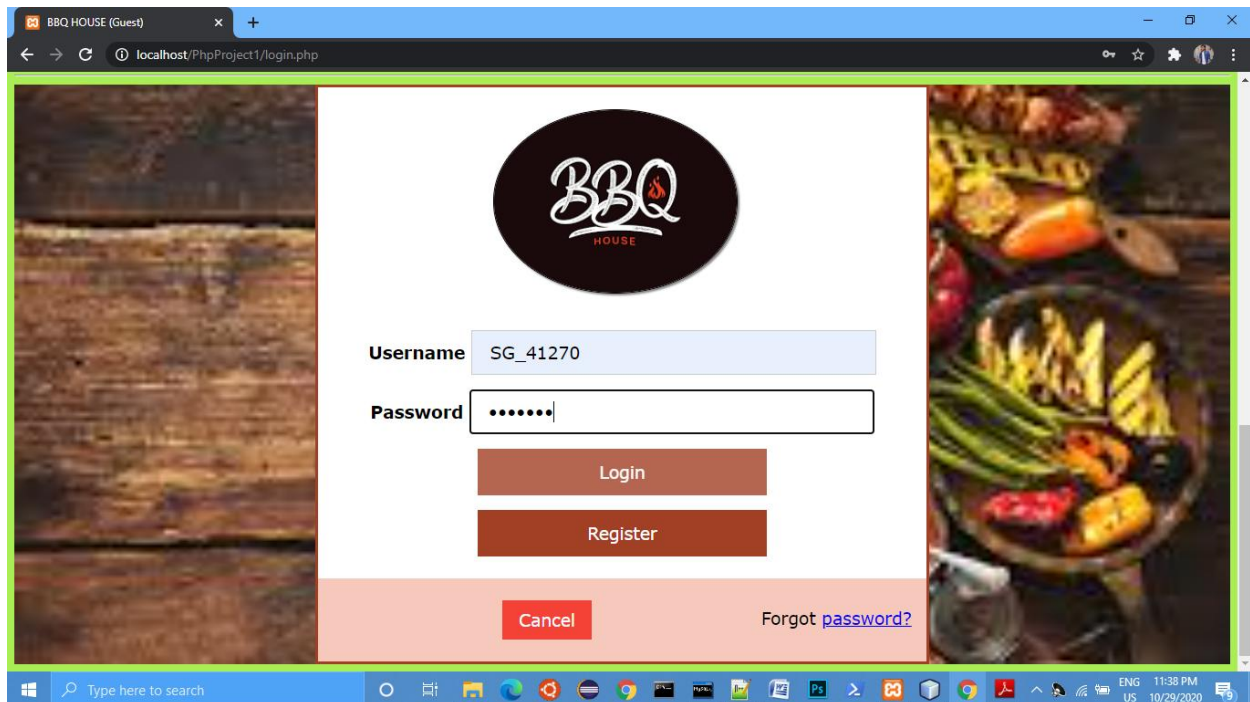
```

Web App working screenshots-

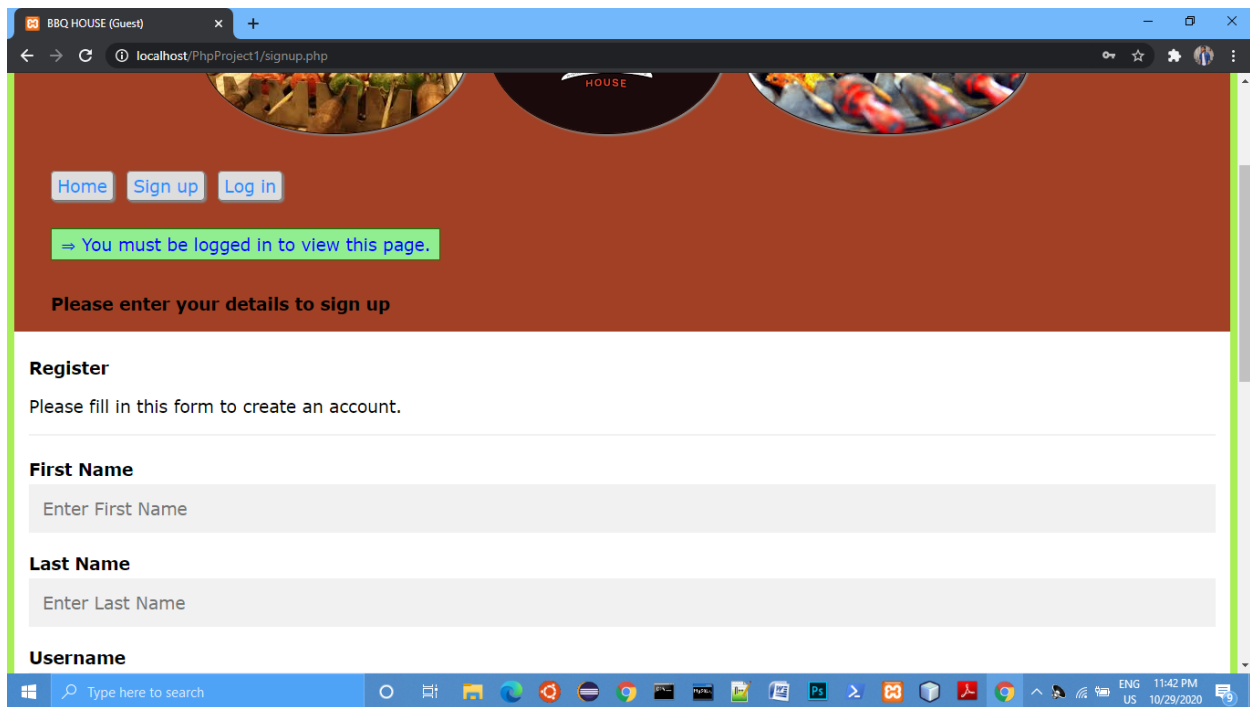
a) Index Page



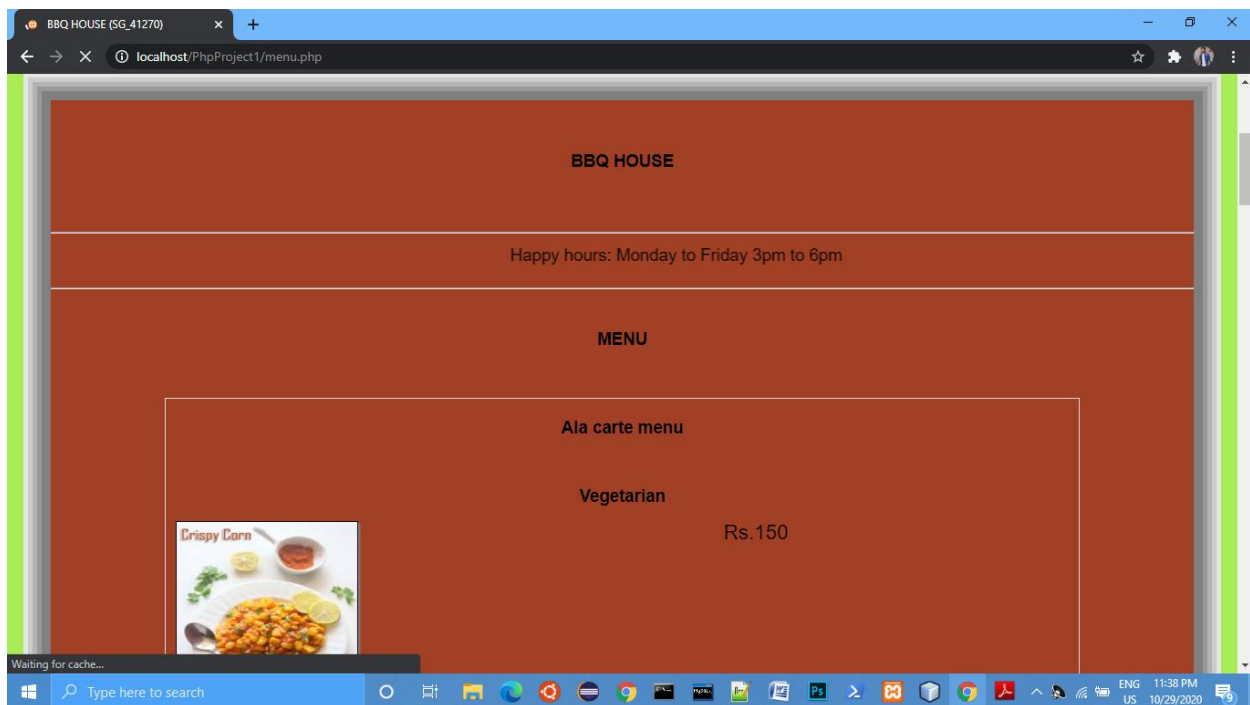
b) Login page



c) Registration page



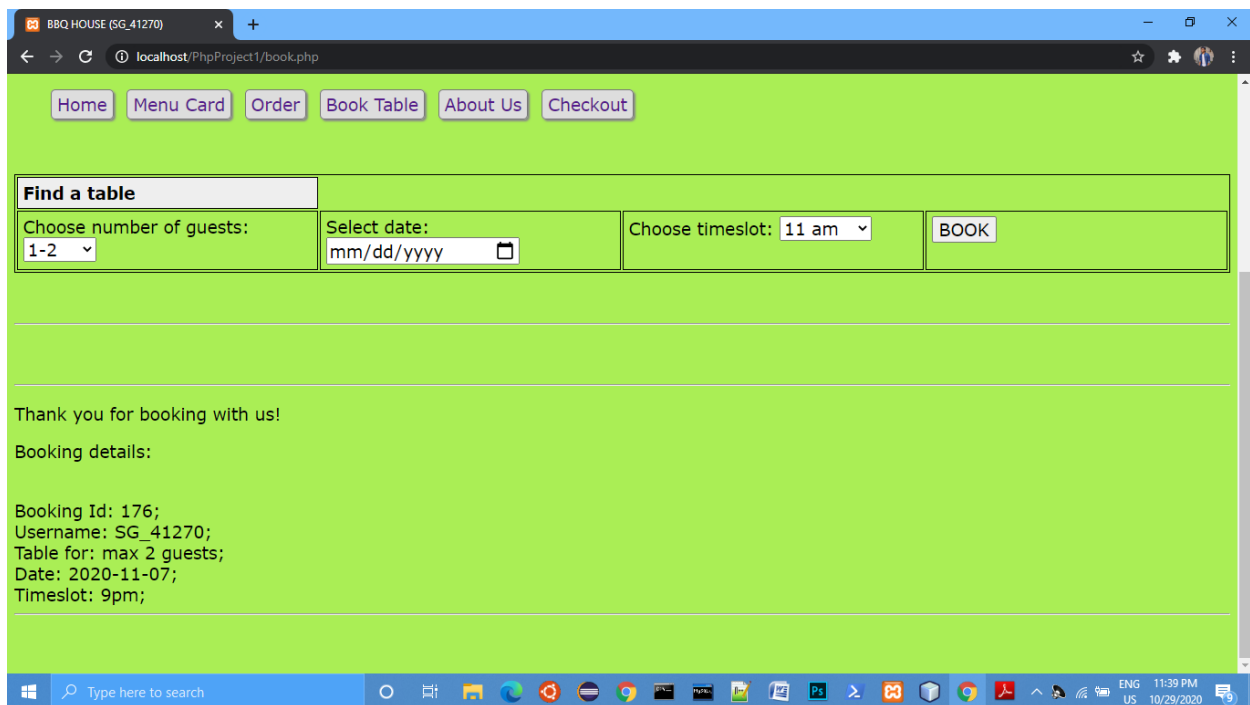
d) Menu page



e) Order page



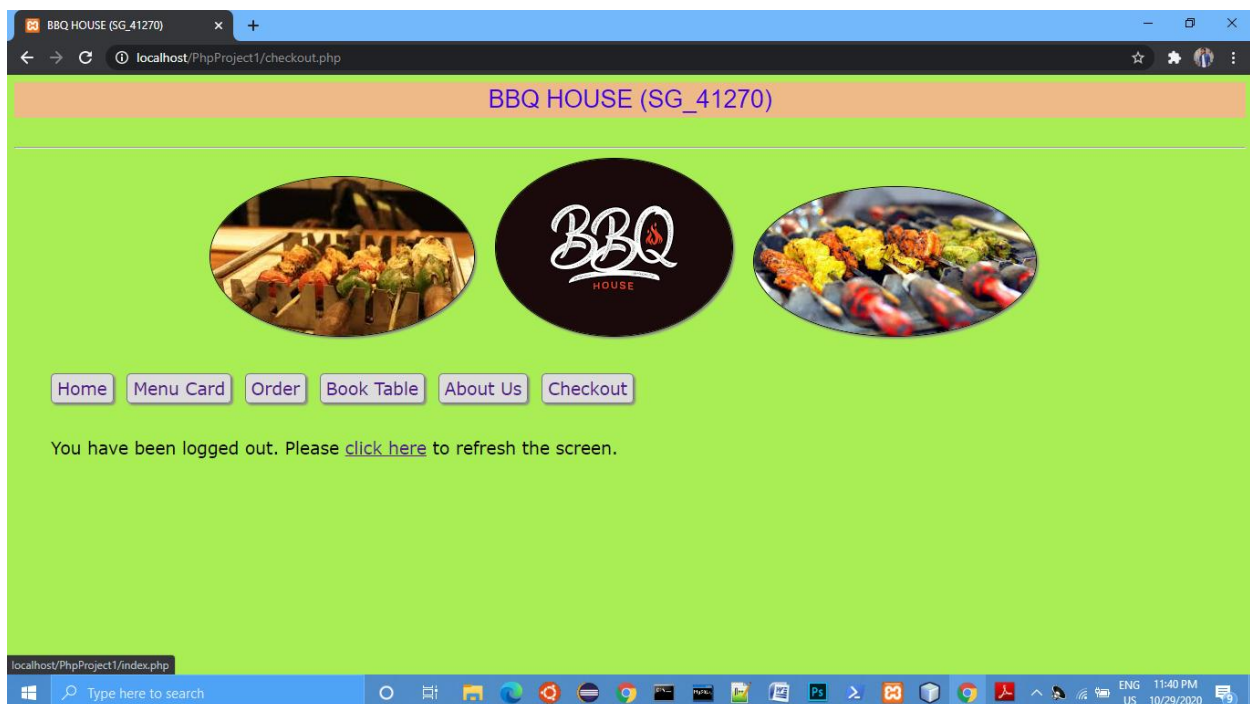
f)Table booking page



g) About page



h) Check out



Database Structure-

```
MySQL 5.5 Command Line Client

mysql> use bbqhouse;
Database changed
mysql> show tables;
+-----+
Tables_in_bbqhouse |
+-----+
bookings            |
items               |
orderdetails        |
orders              |
user                |
+-----+
5 rows in set (0.00 sec)

mysql> describe user;
+-----+-----+-----+-----+-----+-----+
Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
fname | varchar(50) | YES |  | NULL |  |
lname | varchar(50) | YES |  | NULL |  |
username | varchar(50) | NO | PRI |  |  |
email | varchar(128) | YES |  | NULL |  |
password | varchar(50) | YES |  | NULL |  |
contact | varchar(20) | YES |  | NULL |  |
address | varchar(128) | YES |  | NULL |  |
+-----+-----+-----+-----+-----+-----+
7 rows in set (0.26 sec)

mysql> describe bookings;
+-----+-----+-----+-----+-----+-----+
Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
bookingid | varchar(50) | NO | PRI |  |  |
username | varchar(50) | YES | MUL | NULL |  |
noofguests | int(11) | YES |  | NULL |  |
date | date | YES |  | NULL |  |
timeslot | varchar(50) | YES |  | NULL |  |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.12 sec)

mysql> describe items;
```

MySQL 5.5 Command Line Client

```
| timeslot | varchar(50) | YES | | NULL | | |
+-----+
5 rows in set (0.12 sec)
```

mysql> describe items;

```
+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+
| itemid | varchar(20) | NO | PRI | | |
| price | double(10,2) | YES | | NULL | |
| item | varchar(50) | YES | | NULL | |
+-----+
3 rows in set (0.05 sec)
```

mysql> describe orders;

```
+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+
| orderid | int(11) | NO | PRI | 0 | |
| username | varchar(50) | YES | MUL | NULL | |
| bill | double(10,2) | YES | | 0.00 | |
+-----+
3 rows in set (0.12 sec)
```

mysql> describe orderdetails;

```
+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+
| orderid | int(11) | YES | MUL | NULL | |
| itemid | varchar(20) | YES | MUL | NULL | |
| qty | int(11) | YES | | NULL | |
| total | double(10,2) | YES | | 0.00 | |
+-----+
4 rows in set (0.10 sec)
```

mysql>