SAVEETHA SCHOOL OF ENGINEERING
SAVEETHA INSTITUTE OF MEDICAL AND TECHNICAL SCIENCES
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Engineer to Excel

LIST OF EXPERIMENTS

COURSE CODE : CSA37

COURSE NAME : SOFTWARE TESTING

1. Select any system, such as an ATM system, and thoroughly examine its system specifications to identify and document the different software defects present.
2. To write a case study to identify & analyze the requirements of ARMS Portals and to write a positive Test Scenarios as well as Test cases for the above application.
3. To write a case study to identify & analyze the requirements of ARMS Portals and to write a negative Test Scenarios as well as Test cases for the above application.
4. To write a case study to identify & analyze the requirements of e-Commerce Applications and to write a positive Test Scenarios as well as Test cases for the above application.
5. To write a case study to identify & analyze the requirements of e-Commerce Applications and to write a negative Test Scenarios as well as Test cases for the above application.
6. To write a case study to identify & analyze the requirements of Food Delivery Applications and to write a positive Test Scenarios as well as Test cases for the above application.

7. To write a case study to identify & analyze the requirements of Food Delivery Applications and to write a negative Test Scenarios as well as Test cases for the above application
8. To write a case study to identify & analyze the requirements of Banking Applications and to write a possitive Test Scenarios as well as Test cases for the above application.
9. To write a case study to identify & analyze the requirements of Banking Applications and to write a negative Test Scenarios as well as Test cases for the above application
10. Develop a comprehensive test plan document for a chosen application, such as a Library Management System, outlining the various testing strategies, methodologies, and criteria to ensure thorough evaluation and validation of the system's functionality.
11. Demonstrate the working of Junit to reverse a word and using assert statement for Proof of the value.
12. Write a white box testing code (junit) to String comparison of word and using assert statement for Proof the value.
13. Write a junit code for voting system and uses assert statement and verify the white box testing.
14. Write a program using function to calculate the simple interest. Suppose the customer is a senior citizen. He is being offered 12 percent rate of interest; for all other customers, the ROI is 10 percent. The output values should verify using white box testing.
15. Check whether the given number is palindrome or not and verify the output values should verify using white box testing.
16. Write a program to convert Decimal number equivalent to Binary number and octal numbers? The output values should verify using white box testing?

17. Write a Java Program to Convert a Given Number of Days in Terms of Years, Weeks & Days. The output values should verify using white box testing.
18. Find the factorial of n? The output values should verify using white box testing?
19. Find the year of the given date is leap year or not .The output values should verify using white box testing?
20. Write a program to find the square, cube of the given decimal number. The output values should verify using white box testing.
21. Write a Selenium program for automation and open a chrome browser with google.com
22. Write a Selenium program for automation and open a Mozila browser with google.com
23. Write a Selenium program to Automate login in ARMS Portal with the help of Chrome browser
24. Write a Selenium program Automate login in Github Portal with the help of Chrome browser
25. Write a Selenium program Automate login in Swiggy Portal with the help of Chrome browser.

EXP NO : 1

ATM System

Objective: Select an ATM system, and thoroughly examine its system specifications to identify and document the different software defects present.

Common software defects that can be found in ATM systems:

Features to be tested:
1. Validity of the card.
2. Withdraw Transaction flow of ATM.
3. Authentication ofthe user's.
4. Dispense the cash from the account.

Bug-Id	Bug Name
ATM_001	Invalid Card ATM_002 Invalid PIN
ATM_003	Invalid Account type ATM_004 Insufficient Balance
ATM_005	Transaction Limit
ATM_006	Day limit
ATM_007	Invalid money denominations
ATM_008	Receipt not printed
ATM_009	PIN change mismatch

BUG REPORT:

Bug Id: ATM_001
Bug Description: Invalid card
Steps to reproduce: 1. Keep valid card in the ATM.
Expected Result: Welcome Screen
Actual Result: Invalid card
Status : Pass/Fail

Bug Id: ATM_002
Bug Description: Invalid PIN entered
Steps to reproduce:
1. Keep a valid card in ATM.
2. Enter the authorized PIN.
3. Menu screen should be displayed.
Expected Result: Menu screen displayed
Actual Result: Invalid PIN screen is displayed
Status : Pass/Fail

Bug Id: ATM_003

Bug Description: Invalid Account type selected.
Steps to reproduce:
1. Enter a valid user PIN number.
2. Select the withdraw option on the main menu.
3. Choose the correct type of account (either savings or current account).
Expected Result: Enter the Amount screen displayed
Actual Result: Invalid Account type screen is displayed.
Status : Pass/Fail

Bug Id: ATM_004

Bug Description: Insufficient Balance
Steps to reproduce:
1. Menu screen should be displayed.
2. Select the withdraw option.
3. Select the correct type of account.
4. Enter the sufficient amount to withdraw fromthe account.
5. Dispense the cash screen & amount to be deducted from account
Expected Result: Collect the amount screen displayed
Actual Result: Insufficient balance in the account
Status : Pass/Fai

Bug Id: ATM_005

Bug Description: Withdraw Limit per transaction.
Steps to reproduce:
1. Menu screen should be displayed.
2. Select the withdraw option.
3. Select the correct type of account.
4. Enter sufficient amount to withdraw fromthe account Transaction within the limit.
5. Dispense the cash screen & amount to be deducted from account.
Expected Result: Cash is dispensed and collect the receipt
Actual Result: Transaction limit exceeded screen is displayed
Status : Pass/Fail

Bug Id: ATM_006

Bug Description: Withdraw limit per day
Steps to reproduce:
1. Keep a valid card in ATM.
2. Enter the authorized PIN.
3. Enter the amount to withdraw from the account.
4. Amount enter is over the day limit (>40000)
5. Amount enter is over the day limit and display screen is displayed.
Expected Result: Cash is dispensed and collect the receipt.
Actual Result: Day limit exceeded screen is displayed.
Status : Pass/Fail

Bug Id: ATM_007

Bug Description: Amount enter denominations

Steps to reproduce:
1. Keep a valid card in ATM.
2. Enter the authorized PIN.
3. Enter the amount which should be in multiples of 100.
4. Cash Dispenser screen is displayed.
Expected Result: Collect the amount screen is displayed.
Actual Result: Amount enter not in required denominations.

EXP NO : 2

ARMS Portals -Positive Test Cases

Objective: Case Study: Requirements Analysis and Testing for ARMS Portal.-Positive Test Cases.

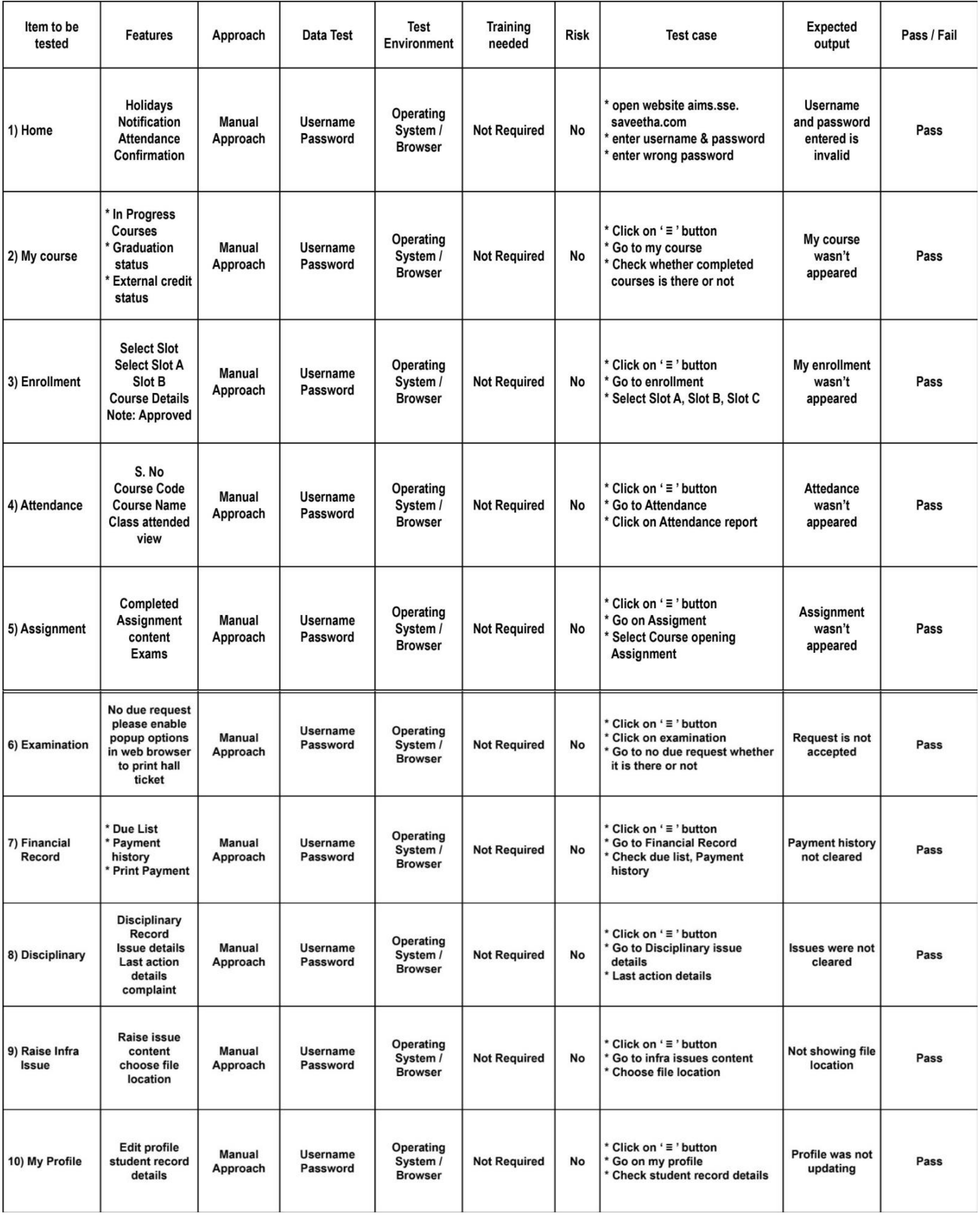
Sl.no	Items to be tested	Features	Approach	Test environment	Training needed	Risk	Test case	Pass/ Fail
1	Home	Holidays Notification Attendance Conformation	Manual approach	Operating systems/Browser	Not required	No	*Open the website arms.saveetha.com *Enter the user name and password *click into home button *check whether holiday is there	Pass
2	My course	*Inprogress course *Graduation status *Completed course *External credits	Manual approach	Operating systems/Browser	Not required	No	*Open the website arms.saveetha.com *Enter the user name and password. *click on “=” button and go to my course	Pass
3	Enrollment	Select slot A Slot B Slot C Slot D *course details *Note=Approved Pending	Manual approach	Operating systems/Browser	Not required	No	*Open the website arms.saveetha.com *Enter the user name and password *click on “=” button and go to Enrollment select slot A,	Pass

							slot Bis there are not.	
4	Attendance	*Attendance report *course code *course name	Manual approach	Operating systems/Browser	Not required	No	*click on “=” button and go to attendance *Click on attendance report whether course code is there are not.	Pass
5	Assignment	* course *select *Complete/Assignment	Manual approach	Operating systems/Browser	Not required	No	*Click on “=” button and go to Assignment. *Click on assignment select coming up	Pass
6	Examination	*No due request *Please enable pop up option	Manual approach	Operating systems/Browser	Not required	No	*click on “=” button and go to Examination *click list no due payment history is there are not	Pass
7	Financial record	*Due list *Payment history *Print payment	Manual approach Manual approach	Operating systems/Browser	Not required	No	click on “=” button and go to Financial record click due list payment history is there are not	Pass
8	Disciplinary	Disciplinary record issue details, last action details	Manual approach	Operating systems/Browser	Not required	No		Pass
9	Raise Infra issue		Manual approach	Operating systems/Browser	Not required	No		Pass
10	My profile		Manual approach	Operating systems/Browser	Not required	No		Pass

EXP NO : 3

ARMS Portals -Negative Test Cases

Objective: Case study to identify & analyze the requirements of ARMS Portals -negative Test Scenarios as well as Test cases for the above application.

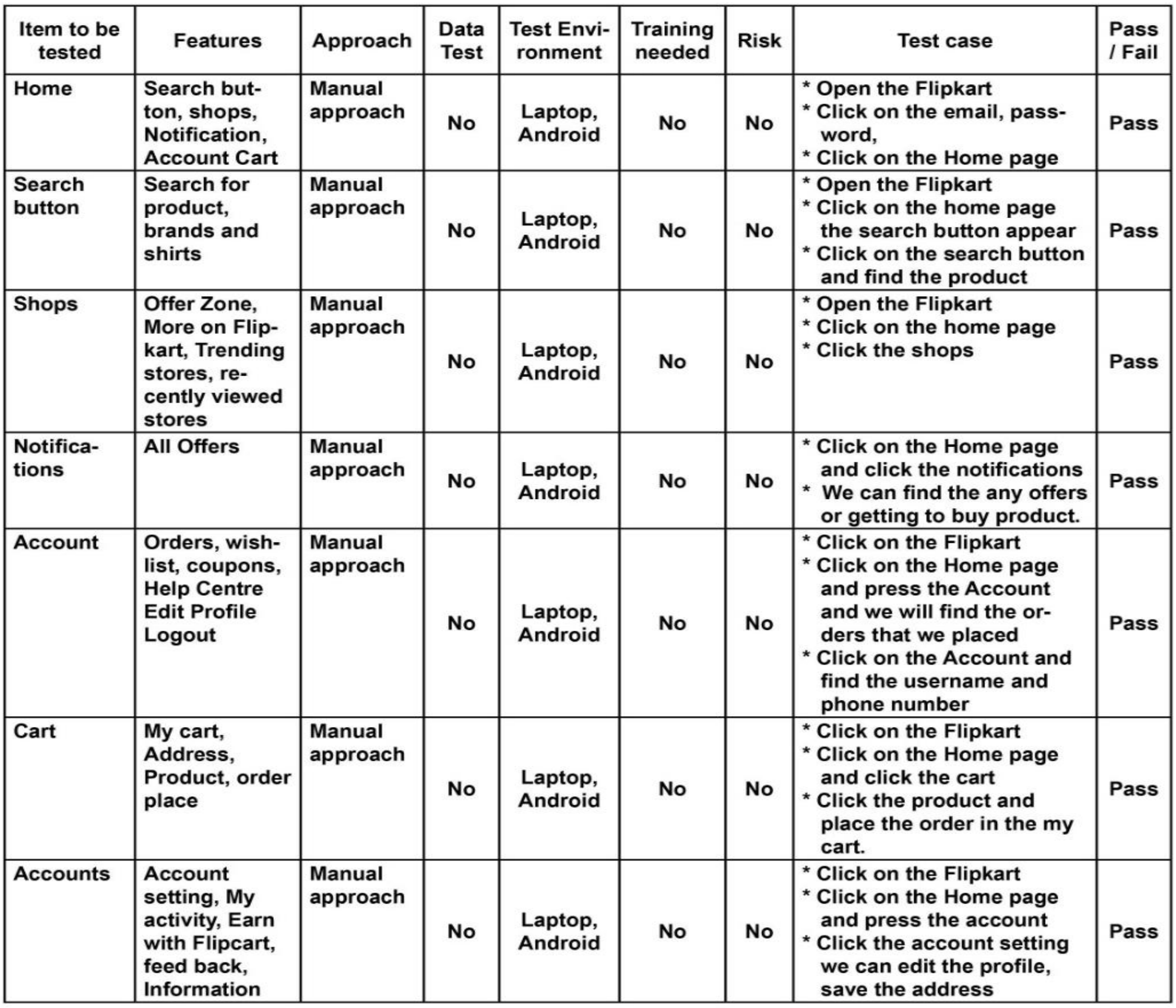


Item to be tested	Features	Approach	Data Test	Test Environment	Training needed	Risk	Test case	Expected output	Pass / Fail
1) Home	Holidays Notification Attendance Confirmation	Manual Approach	Username Password	Operating System / Browser	Not Required	No	* open website aims.sse. saveetha.com * enter username & password * enter wrong password	Username and password entered is invalid	Pass
2) My course	* In Progress Courses * Graduation status * External credit status	Manual Approach	Username Password	Operating System / Browser	Not Required	No	* Click on ‘ ≡ ’ button * Go to my course * Check whether completed courses is there or not	My course wasn’t appeared	Pass
3) Enrollment	Select Slot Select Slot A Slot B Course Details Note: Approved	Manual Approach	Username Password	Operating System / Browser	Not Required	No	* Click on ‘ ≡ ’ button * Go to enrollment * Select Slot A, Slot B, Slot C	My enrollment wasn’t appeared	Pass
4) Attendance	S. No Course Code Course Name Class attended view	Manual Approach	Username Password	Operating System / Browser	Not Required	No	* Click on ‘ ≡ ’ button * Go to Attendance * Click on Attendance report	Attedance wasn’t appeared	Pass
5) Assignment	Completed Assignment content Exams	Manual Approach	Username Password	Operating System / Browser	Not Required	No	* Click on ‘ ≡ ’ button * Go on Assigment * Select Course opening Assignment	Assignment wasn’t appeared	Pass
6) Examination	No due request please enable popup options in web browser to print hall ticket	Manual Approach	Username Password	Operating System / Browser	Not Required	No	* Click on ‘ ≡ ’ button * Click on examination * Go to no due request whether it is there or not	Request is not accepted	Pass
7) Financial Record	* Due List * Payment history * Print Payment	Manual Approach	Username Password	Operating System / Browser	Not Required	No	* Click on ‘ ≡ ’ button * Go to Financial Record * Check due list, Payment history	Payment history not cleared	Pass
8) Disciplinary	Disciplinary Record Issue details Last action details complaint	Manual Approach	Username Password	Operating System / Browser	Not Required	No	* Click on ‘ ≡ ’ button * Go to Disciplinary issue details * Last action details	Issues were not cleared	Pass
9) Raise Infra Issue	Raise issue content choose file location	Manual Approach	Username Password	Operating System / Browser	Not Required	No	* Click on ‘ ≡ ’ button * Go to infra issues content * Choose file location	Not showing file location	Pass
10) My Profile	Edit profile student record details	Manual Approach	Username Password	Operating System / Browser	Not Required	No	* Click on ‘ ≡ ’ button * Go on my profile * Check student record details	Profile was not updating	Pass

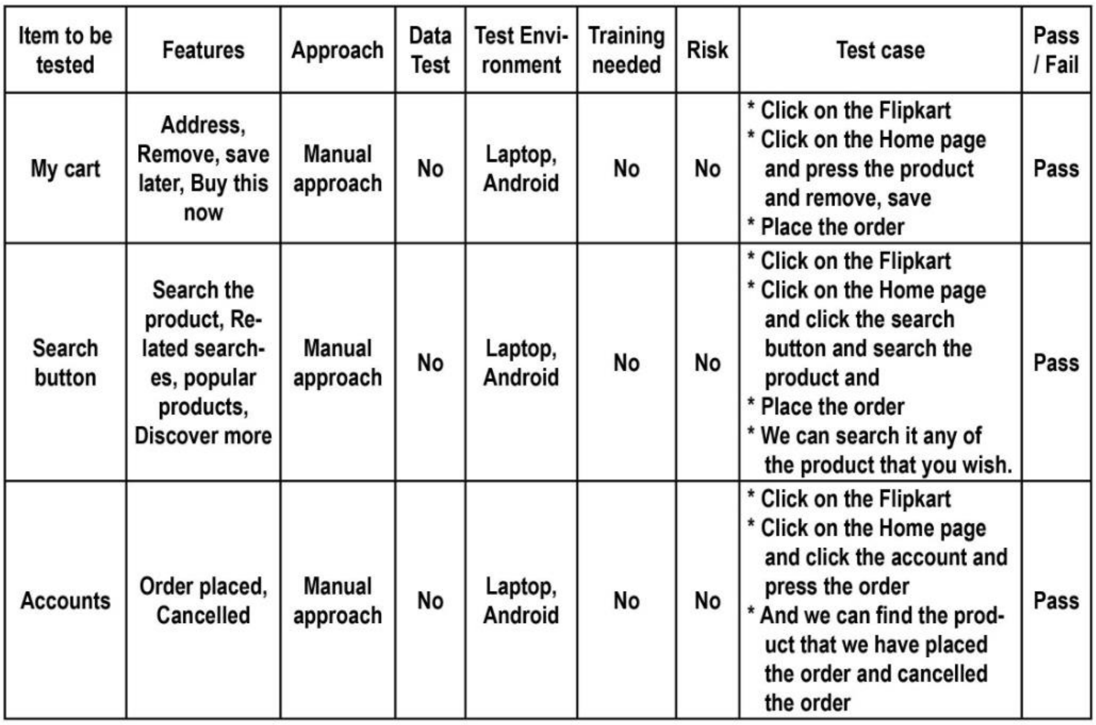
EXP NO : 4

e-Commerce Applications- Positive Test Cases

Objective: Case study to identify & analyze the requirements of Flipkart -Positive Test Scenarios as well as Test cases for the above application.



Item to be tested	Features	Approach	Data Test	Test Environment	Training needed	Risk	Test case	Pass / Fail
Home	Search button, shops, Notification, Account Cart	Manual approach	No	Laptop, Android	No	No	* Open the Flipkart * Click on the email, password, * Click on the Home page	Pass
Search button	Search for product, brands and shirts	Manual approach	No	Laptop, Android	No	No	* Open the Flipkart * Click on the home page the search button appear * Click on the search button and find the product	Pass
Shops	Offer Zone, More on Flipkart, Trending stores, recently viewed stores	Manual approach	No	Laptop, Android	No	No	* Open the Flipkart * Click on the home page * Click the shops	Pass
Notifications	All Offers	Manual approach	No	Laptop, Android	No	No	* Click on the Home page and click the notifications * We can find the any offers or getting to buy product.	Pass
Account	Orders, wishlist, coupons, Help Centre Edit Profile Logout	Manual approach	No	Laptop, Android	No	No	* Click on the Flipkart * Click on the Home page and press the Account and we will find the orders that we placed * Click on the Account and find the username and phone number	Pass
Cart	My cart, Address, Product, order place	Manual approach	No	Laptop, Android	No	No	* Click on the Flipkart * Click on the Home page and click the cart * Click the product and place the order in the my cart.	Pass
Accounts	Account setting, My activity, Earn with Flipcart, feed back, Information	Manual approach	No	Laptop, Android	No	No	* Click on the Flipkart * Click on the Home page and press the account * Click the account setting we can edit the profile, save the address	Pass



Item to be tested	Features	Approach	Data Test	Test Environment	Training needed	Risk	Test case	Pass / Fail
My cart	Address, Remove, save later, Buy this now	Manual approach	No	Laptop, Android	No	No	* Click on the Flipkart * Click on the Home page and press the product and remove, save * Place the order	Pass
Search button	Search the product, Related searches, popular products, Discover more	Manual approach	No	Laptop, Android	No	No	* Click on the Flipkart * Click on the Home page and click the search button and search the product and * Place the order * We can search it any of the product that you wish.	Pass
Accounts	Order placed, Cancelled	Manual approach	No	Laptop, Android	No	No	* Click on the Flipkart * Click on the Home page and click the account and press the order * And we can find the product that we have placed the order and cancelled the order	Pass

EXP NO : 5

e-Commerce Applications- Negative Test Cases

Objective: To write a case study to identify & analyze the requirements of e-Commerce Applications (Flipkart) and to write a negative Test Scenarios as well as Test cases for the above application.

Items to be selected	Features	Approach	Data Test	Test Environment	Training Needed	Risk	Test case	Expected Output	Pass
Home	Search button, shops, notifications, Account etc	Manual Approach	No	Laptop, Android	No	No	Step1:-Open the flipkart Step2:-Click on the Email, password	Other tab Opened =>Incorrect Email or password	Pass
Search button	Search for products Brands & shirts	Manual Approach	No	Laptop, Android	No	No	Step1:-Search for products Step2:-Incorrect product will appear	Wrong Products Appear	Pass
Shops	Search for Mobiles, Fashion, Electronics	Manual Approach	Np	Laptop, Android	No	No	Step1:-Open the shops Step2:-Click on The mobiles & search	Searched Mobiles do not appear	Pass

Trending Stores	Search for student And wedding Store	Manual approach	No	Laptop, Android	No	No	Step1:- Open The shops Step2:- In that open trending stores Step3:- But it will open another store	Not open Student's Club	Pass
Notifications	Order list will appear	Manual approach	No	Laptop, Android	No	No	Step1:- Open the Notifications Step2:- Order placed Product Step3:- Does not appear in notifications	Does not show notifications	Pass
Account	Click on orders, Wishlist, Coupons	Manual approach	No	Laptop, Android	No	No		Help centre Does not appear	Pass
Items to be selected	Features	Approach	Data Test	Test Environment	Training needed	Risk	Test Case	Expected output	Pass/Fail

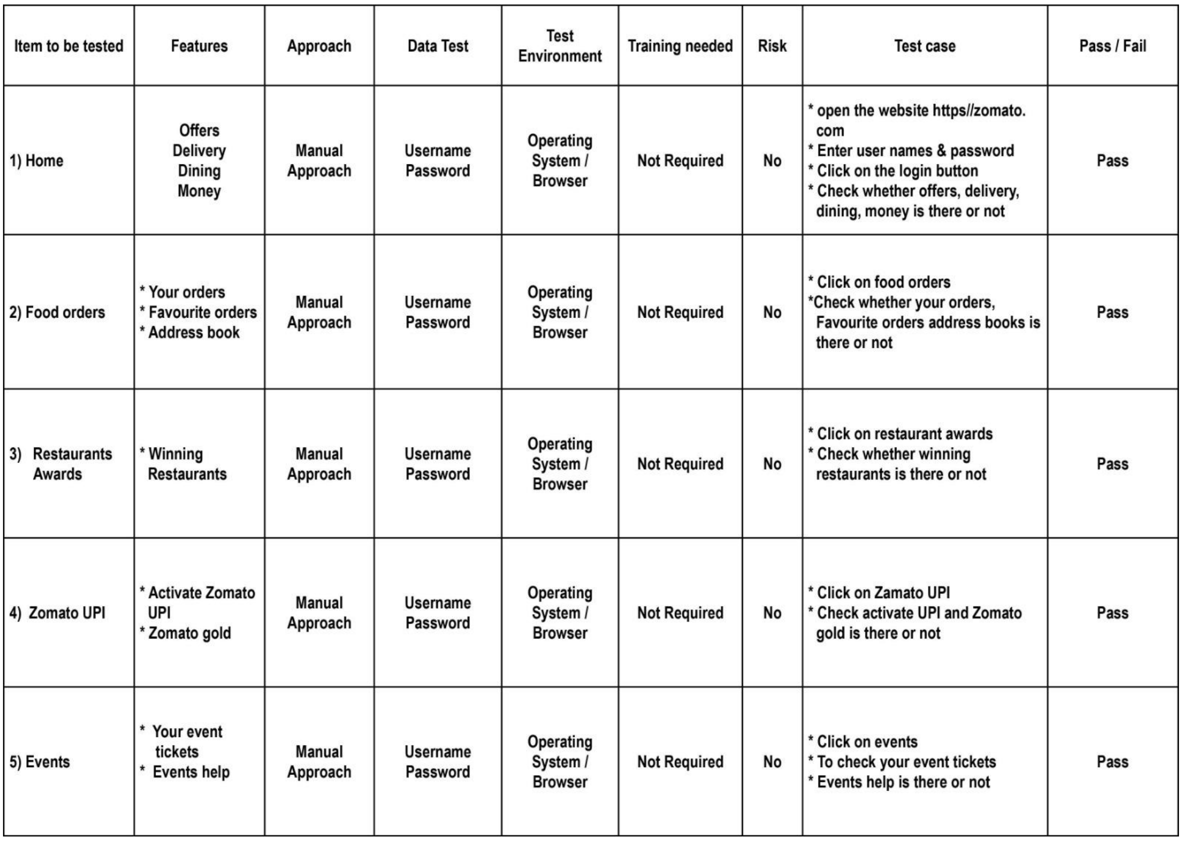
Accounts	Click on Logout	Manual Approach	No	Laptop, Android	No	No	Step1:- Open flipcart and click in account Step2:- At last click on logout option Step3:- But flipcart doesn’t logout	Flipcart doesn’t logout	Pass
Accounts	Click on edit profile	Manual Approach	No	Laptop, Android	No	No	Step1:- Open flipcart and click on accounts Step2:- Click on edit profile Step3:- Profile will not be updating	Profile will not be updating	Pass
Cart	Click on place order	Manual Approach	No	Laptop, Android	No	No	Step1:- Open accounts & click place order Step2:- Place order	Order not placed	Pass
Shops	Search for medicines	Manual approach	No	Laptop, android	No	No	Step1:- Open flipcart &click medicines Step2:- medicine	Medicines do nor appear	Pass

							s will not appear		

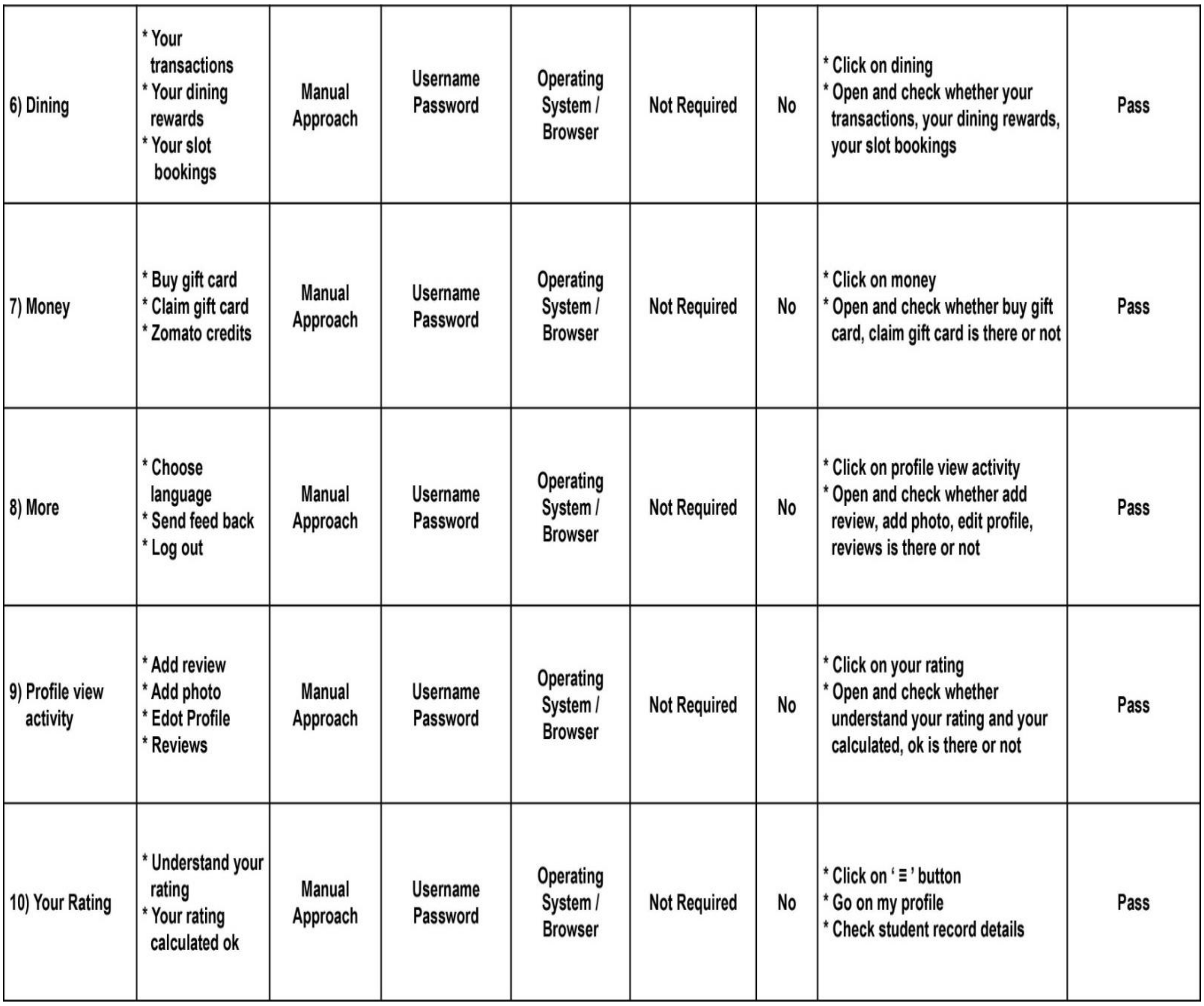
EXP NO : 6

Food Delivery Applications- Positive Test Cases

Objective: A case study to identify & analyze the requirements of Food Delivery Applications and to write a positive Test Scenarios as well as Test cases for the above application.



Item to be tested	Features	Approach	Data Test	Test Environment	Training needed	Risk	Test case	Pass / Fail
1) Home	Offers Delivery Dining Money	Manual Approach	Username Password	Operating System / Browser	Not Required	No	* open the website https//zomato. com * Enter user names & password * Click on the login button * Check whether offers, delivery, dining, money is there or not	Pass
2) Food orders	* Your orders * Favourite orders * Address book	Manual Approach	Username Password	Operating System / Browser	Not Required	No	* Click on food orders *Check whether your orders, Favourite orders address books is there or not	Pass
3) Restaurants Awards	* Winning Restaurants	Manual Approach	Username Password	Operating System / Browser	Not Required	No	* Click on restaurant awards * Check whether winning restaurants is there or not	Pass
4) Zomato UPI	* Activate Zomato UPI * Zomato gold	Manual Approach	Username Password	Operating System / Browser	Not Required	No	* Click on Zamato UPI * Check activate UPI and Zomato gold is there or not	Pass
5) Events	* Your event tickets * Events help	Manual Approach	Username Password	Operating System / Browser	Not Required	No	* Click on events * To check your event tickets * Events help is there or not	Pass



6) Dining	* Your transactions * Your dining rewards * Your slot bookings	Manual Approach	Username Password	Operating System / Browser	Not Required	No	* Click on dining * Open and check whether your transactions, your dining rewards, your slot bookings	Pass
7) Money	* Buy gift card * Claim gift card * Zomato credits	Manual Approach	Username Password	Operating System / Browser	Not Required	No	* Click on money * Open and check whether buy gift card, claim gift card is there or not	Pass
8) More	* Choose language * Send feed back * Log out	Manual Approach	Username Password	Operating System / Browser	Not Required	No	* Click on profile view activity * Open and check whether add review, add photo, edit profile, reviews is there or not	Pass
9) Profile view activity	* Add review * Add photo * Edot Profile * Reviews	Manual Approach	Username Password	Operating System / Browser	Not Required	No	* Click on your rating * Open and check whether understand your rating and your calculated, ok is there or not	Pass
10) Your Rating	* Understand your rating * Your rating calculated ok	Manual Approach	Username Password	Operating System / Browser	Not Required	No	* Click on ‘ ≡ ’ button * Go on my profile * Check student record details	Pass

EXP NO : 7

Food Delivery Applications- Negative Test Cases

Objective: A case study to identify & analyze the requirements of Food Delivery Applications and to write a negative Test Scenarios as well as Test cases for the above application.

Item to be searched	Features	Approach	Data set	Test environment	Training needed	Risk	Test case	Expected output	Pass/ Fail
Home	Offers Delivary Dining Money	Manual approach	Username /Password	Operating system/ Brower	Not Required	No	*Open website https//zomoto.com *Enter user name &password opened (or) not	Other tab opened *Incorrect email (or) password	Pass
Food order	Your order Favourate-Order Addres Book	Manual approach	Username /Password	Operating system/ Brower	Not Required	No	Click on food order Favorite order Address is there or not	Wrong item appear	Pass
Restaurant Awards	Wining Restaurant	Manual approach	Username /Password	Operating system/ Brower	Not Required	No	*Click on restaurant awards *Check whether wining restaurant is there or not	Fake restaurant name apper	Pass
Zomoto UPI	Activity Zomot UPI Zomot gold	Manual approach	Username /Password	Operating system/ Brower	Not Required	No	*Click on zomoto UPI *Check activity UPI and zomoto gold is there (or) not	*Wrong accept *Insffient balance will appear on wallet or bank	Pass

Events	Your events tickets Event help	Manual approach	Username /Password	Operating system/ Brower	Not Required	No	*Click on the events your event ticket *Event help is veaver not	Wrong tickets display on the screen	Pass
Dining	Your transation Your dining reward Your Slot booking	Manual approach	Username /Password	Operating system/ Brower	Not Required	No	Click on the dining disk on trance,your dining reward slot booking	After debited money from bank ofill foof order is booked	Pass
Money	Buy gift card Clime gift card Card zomoto credit	Manual approach	Username /Password	Operating system/ Brower	Not Required	No	Click on money oprn and check buy gift cards	Not access for claming the gift card	Pass
Move	Choose Language Send feedback	Manual approach	Username /Password	Operating system/ Brower	Not Required	No	Choose language and send feedback	Unable to send feedback layout	Pass
Profile view - activity	Layout Add review Add photo Edit profile Review	Manual approach	Username /Password	Operating system/ Brower	Not Required	No	Profile view Add review review	Unable to send the review of users (Proxi review)	Pass
Your rating	Understand Your rating Tour rayting eduoted OK.	Manual Approach	Username /Password	Operating system/ Brower	Not Required	No	Your rating Check whether your rating is ok is there cought	Unable to see your item rating	Pass

EXP NO : 8

Banking Applications - Possitive Test Cases

Objective: A case study to identify & analyze the requirements of Banking Applications and to write a possitive Test Scenarios as well as Test cases for the above application.

Items to be Tested	Features	Approach	Data Test	Test Environment	Training Needed	Risk	Test Case	Pass /Fail
User Registration	Name, Email, Password	Manual approach	Username, password	Laptop, phone	NO	NO	Step1: Verify that user can successfully register with valid information. Step2: Verify that all mandatory fields are validated properly. Step3: Verify the unique username is required during registration	Pass
User Login	Email, Password	Manual approach	Username, password	Laptop, phone	NO	NO	Step1: Verify that a registered user can login with valid credentials. Step2: Verify that appropriate error message are displayed. Step3: Verify the system maintains user sessions and keeps the user logged	Pass
Account management	Account information	Manual approach	Username, password	Laptop, phone	NO	NO	Step1: Verify that user can create a bank account or not. Step2: Verify user can view account details including balance and transaction history. Step3: Verity that user update information.	Pass

Fund transfer	Balance history, transaction	Manual approach	Username, password	Laptop, phone	NO	NO	Step1: Verify that user can transfer money or not' Step2: Verify that the transferred amount is accurately reflected in sender or receiver. Step3: Proper validation is performed for account numbers and transfer amounts.	Pass
Bill payment	Electricity water, phone	Manual approach	Username, password	Laptop, phone	NO	NO	Step1: Verify that a user can pay bills successfully Step2: Verify that the payment is reflected in the user's transaction history of biller's record. Step3: Verify that appropriate error messages are displayed for invalid bill payment attempts.	Pass
Account security	Length, complexity	Manual approach	Username, password	Laptop, phone	NO	NO	Step1: User can update their password successfully. Step2: Verify that new password meets the security. Step3: It access two-factors authentication for enhanced security.	Pass
Customer support	Chat, email phone	Manual approach	Username, password	Laptop, phone	NO	NO	Step1: User can conduct customer support via various channels. Step2:	Pass

							Customer support request are handled promptly and efficiently. Step3: User receives the appropriate responses.	
Mobile banking	User friendly, mobile app	Manual approach	Username, password	Laptop, phone	NO	NO	Step1: Mobile banking applications provides a seamless and user-friendly experience. Step2: All functionalities available on the web-platform. Step3: Mobile app supports various mobile devices.	Pass
Transaction notification	Transfer, bill payment, account change	Manual approach	Username, password	Laptop, phone	NO	NO	Step1: User received real notification for transaction. Step2: Notification contain accurate and relevant information. Step3: Verify the user can customize the notifications	Pass
Integration with external services	External services, payment gateway	Manual approach	Username, password	Laptop, phone	NO	NO	Step1: Banking application integrate smoothly with external services. Step2: Data exchange between the applications Step3: Relevant information for external services	Pass

EXP NO : 9

Banking Applications - Negative Test Cases

Objective: A case study to identify & analyze the requirements of Banking Applications and to write a negative Test Scenarios as well as Test cases for the above application.

Items to be tested	**Features**	**Approach**	**Data Test**	**Test Environment**	**Training Needed**	**Risk**	**Testcases**	Expected Output	**Pass/Fail**
User Registration	Name, email, password	Manual Approach	Username, Password	Laptop, Phone	NO	NO	**Step1-** verify that user can successfully register with valid information **Step2-** Verify that all mandatory fields are validated Properly **Step3-** Verify that unique user name is required during registration.	The application should display on appropriate error message indicating that the password entered is invalid	Pass

User Login	Email, password	Manual Approach	Username, Password	Laptop, Phone	NO	NO	**Step1-** verify that a registered user can login with valid credentials. **Step2-** Verify that appropriate error message is displayed. **Step3-** Verify that the system maintains user session and keeps the user logged	Password is incorrect	Pass
Account management	Account information	Manual Approach	Username, Password	Laptop, Phone	NO	NO	**Step1-** verify that user can create a bank account or not **Step2-** Verify that user can view account details including balance and transaction history **Step3-** Verify that user can update account information	Account no is invalid	Pass

Bill payment	Electricity, Water, phone	Manual Approach	Username, Password	Laptop, Phone	NO	NO	**Step1-** verify that user can pay bill successfully **Step2-** Verify that payment is reflected in the user's transaction history of biller's records. **Step3-** Verify that appropriate error message is displayed. .	Bill was not found in transaction list	Pass
Account Security	Length Complexity	Manual Approach	Username, Password	Laptop, Phone	NO	NO	**Step1-** verify that user can update their password successfully **Step2-** Verify that new password meets the security **Step3-** Verify that it access two factors authentication.	The password entered is incorrect	Pass

EXP NO : 10

Library Management System-Test Plan

Objective: Develop a comprehensive test plan document for a chosen application, such as a Library Management System, outlining the various testing strategies, methodologies, and criteria to ensure thorough evaluation and validation of the system's functionality.

Items to be tested	**features**	**Approach**	**Data test**	**Test environment**	**Training needed**	**Risk**	**Test cases**	**Pass/ fail**
1.Registration	User's authentication	Manual approach	Username password	Browser	No	No	1.Open the website 2.enter the username/password 3.login 4.home page will appear	Pass
2.Searching for a book	Book identification	Manual approach	Book categories	Browser	No	No	**Step1: I**n the home page , click the category. **Step2:** select the required category. **Step3:** choose the book from that category.	Pass
3. Borrowing a book	Book borrowing	Manual approach	Book selection	Browser	No	No	**Step1**: in the home page , click the category. **Step2:** select the required category. **Step3**: choose the book from the category. **Step4:** Borrow the book	Pass
4. Returning a book	Book returning	Manual approach	Book selection	Browser	No	No	**Step1**: in the home page , click the category. **Step2:** select the return option.	Pass

							Step3: return the book.	
5.Adding a new book the library	New book addition	Manual approach	Book availability	Browser	No	No	**Step1**: select the category of that book **Step2:** add the number for that book. **Step3**: add the book to the library .	Pass
6. No. of book in the library	Number of books	Manual approach	Number Of books	Browser	No	No	**Step1:** add the category in the library **Step2:** add all the books in all category. **Step3**: No. of books will be identified.	Pass
7.Generating a report of borrowed books	Generalized report of borrowing	Manual approach	No .of books	Browser	No	No	**Step1:** select the borrowed books **Step2:** select the date ,in which the report need to generate. **Step3**: report will be generate.	Pass
8. Book-id number	Identification for the book	Manual approach	No. of books	Browser	No	No	**Step1:** select the required book. **Step2:** books contain a id number to categorize. **Step3**: click the Book-id number	Pass

9. Security	Authentication purpose	Manual approach	Access control	Browser	No	No	**Step1:** click the security, in the home page. **Step2:** select the security options. **Step3**: keep the security of user's wish.	Pass
10. Payment	Renewal purpose /membership	Manual approach	Username / password	Browser	No	No	**Step1:** click the payment option in the home page. **Step2:** if renewal-do payment **Step3**: If membership-fill details and pay.	Pass

EXP NO : 11

Demonstrate the working of Junit to reverse a word and using assert statement for Proof of the value

AIM : To understand the working of Junit assert statements by comparing the reversed value with expected one.

PROGRAM

```
import static org.junit.Assert.assertEquals;
import java.util.Scanner;
class WordReverseTest
{
        public static void main(String[] args)
{
        String str;
        char ch;
        Scanner sc=new Scanner(System.in);
        System.out.print("Enter a string : ");
        str=sc.nextLine();
        System.out.println("Reverse of a String '"+str+"' is :");
        for(int j=str.length();j>0;--j)
        {
                System.out.print(str.charAt(j-1));
        assertEquals("mani",str);
                        }
                assertEquals("mani",str);

}
}
```

OUTPUT

Input	**Actual output**
mani	inam

<u>Test cases:</u>

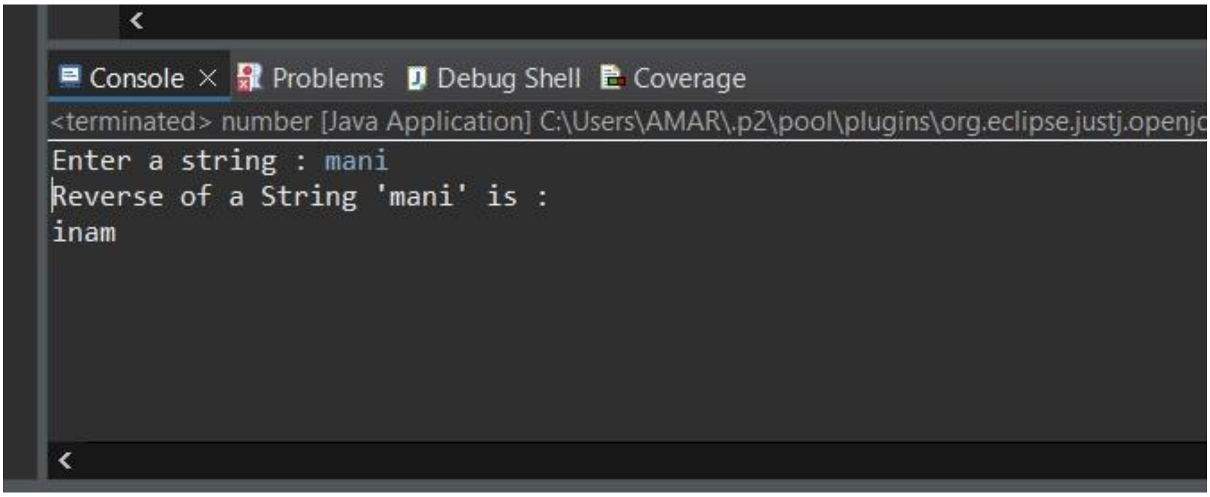
Test case no: 1

Test case name: Expected one same as actual one

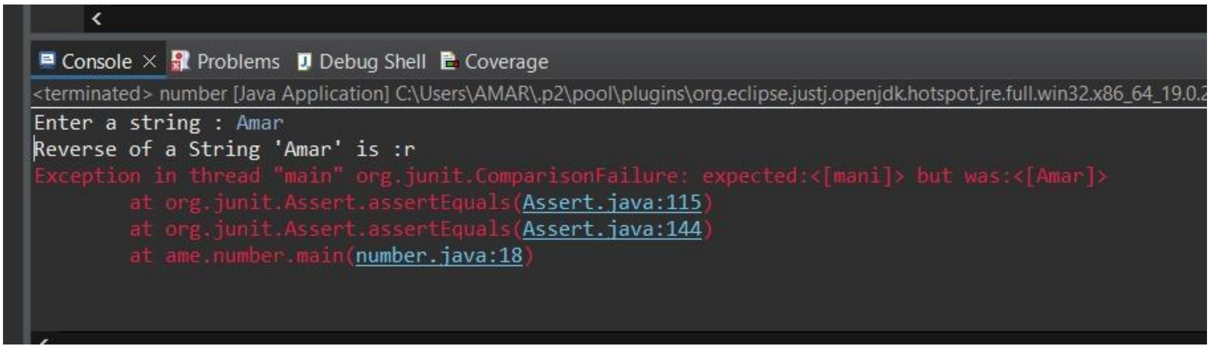
Input = mani	**Expected output**	**Actual output**	**Remarks**
	inam	inam	SUCCESS

Test case no: 2
Test case name: Expected one same as actual one

Input = Amar	**Expected output**	**Actual output**	**Remarks**
	rama	r	FAILURE



```
<terminated> number [Java Application] C:\Users\AMAR\.p2\pool\plugins\org.eclipse.justj.openjc
Enter a string : mani
Reverse of a String 'mani' is :
inam
```



```
<terminated> number [Java Application] C:\Users\AMAR\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_19.0.2
Enter a string : Amar
Reverse of a String 'Amar' is :r
Exception in thread "main" org.junit.ComparisonFailure: expected:<[mani]> but was:<[Amar]>
	at org.junit.Assert.assertEquals(Assert.java:115)
	at org.junit.Assert.assertEquals(Assert.java:144)
	at ame.number.main(number.java:18)
```

EXP NO : 12

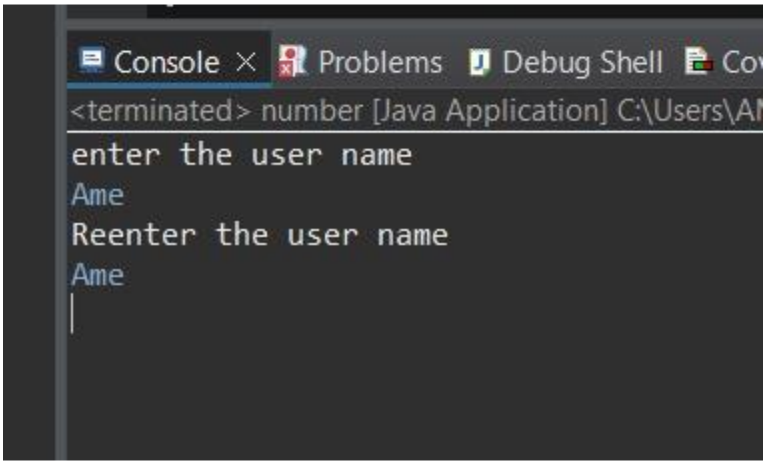
Write a white box testing code (junit) to String comparison of word and using assert statement for Proof the value.

AIM: To understand the working of Junit assert statements by comparing two strings.

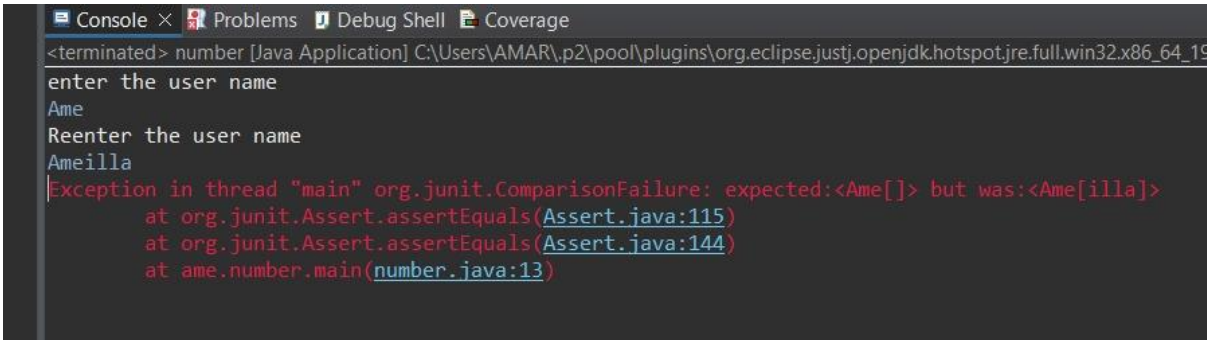
PROGRAM

```
import static org.junit.Assert.assertEquals;
import java.util.Scanner;
public class third {
public static void main(String [] args)
{
        Scanner in=new Scanner(System.in);
                System.out.println("enter the user name");
        String str1=in.nextLine();
        System.out.println("Reenter the user name");
        String str2=in.nextLine();
        assertEquals(str1,str2);
                }
}
```

OUTPUT



```
<terminated> number [Java Application] C:\Users\A
enter the user name
Ame
Reenter the user name
Ame
```



```
<terminated> number [Java Application] C:\Users\AMAR\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_1
enter the user name
Ame
Reenter the user name
Ameilla
Exception in thread "main" org.junit.ComparisonFailure: expected:<Ame[]> but was:<Ame[illa]>
	at org.junit.Assert.assertEquals(Assert.java:115)
	at org.junit.Assert.assertEquals(Assert.java:144)
	at ame.number.main(number.java:13)
```

EXP NO : 13

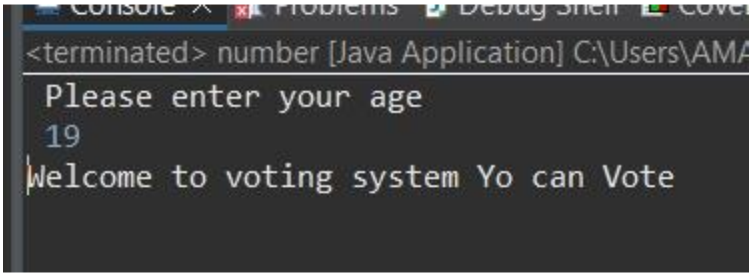
Write a junit code for voting system and uses assert statement and verify the white box testing.

AIM: To understand the working of Junit True statements by checking the voting age.

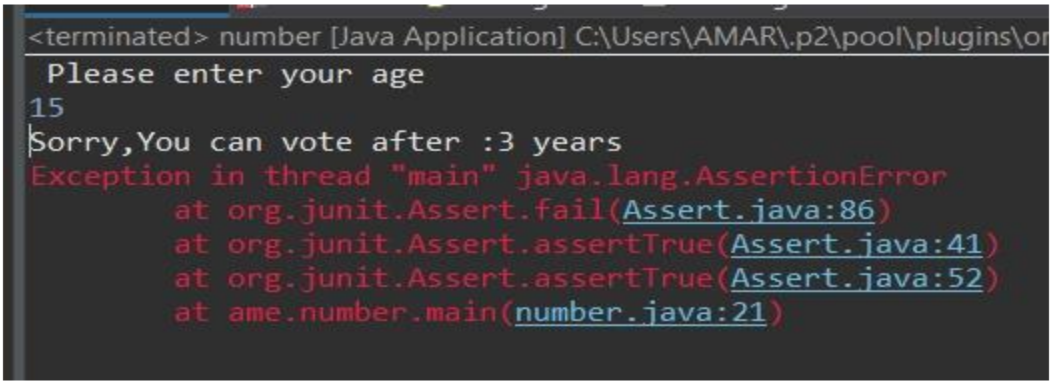
PROGRAM

```
import static org.junit.Assert.assertTrue;
import java.util.Scanner;
 class four
{
public static void main(String[] args)
{
int age,shrt;
Scanner scan = new Scanner(System.in);
System.out.println(" Please enter your age");
age = scan.nextInt();
if(age>=18)
{
System.out.println("Welcome to voting system Yo can Vote");
}
else
{
        shrt= (18 - age);
System.out.println("Sorry,You can vote after :"+ shrt + " years");
assertTrue(age==shrt);

} } }
```

OUTPUT



```
<terminated> number [Java Application] C:\Users\AMA
 Please enter your age
 19
Welcome to voting system Yo can Vote
```



```
<terminated> number [Java Application] C:\Users\AMAR\.p2\pool\plugins\or
 Please enter your age
15
Sorry,You can vote after :3 years
Exception in thread "main" java.lang.AssertionError
	at org.junit.Assert.fail(Assert.java:86)
	at org.junit.Assert.assertTrue(Assert.java:41)
	at org.junit.Assert.assertTrue(Assert.java:52)
	at ame.number.main(number.java:21)
```

EXP NO : 14

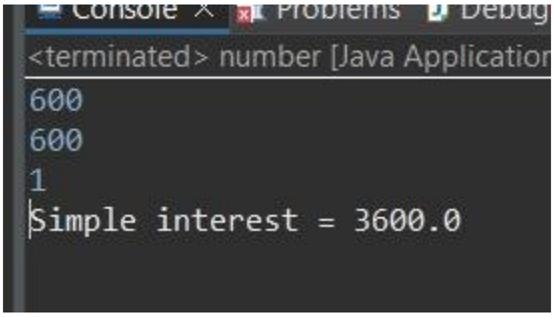
Write a program using function to calculate the simple interest. Suppose the customer is a senior citizen. He is being offered 12 percent rate of interest; for all other customers, the ROI is 10 percent. The output values should verify using white box testing.

AIM: Write a program that calculates the simple interest based on the percentage rate conditions and verify the result using assertTrue code.

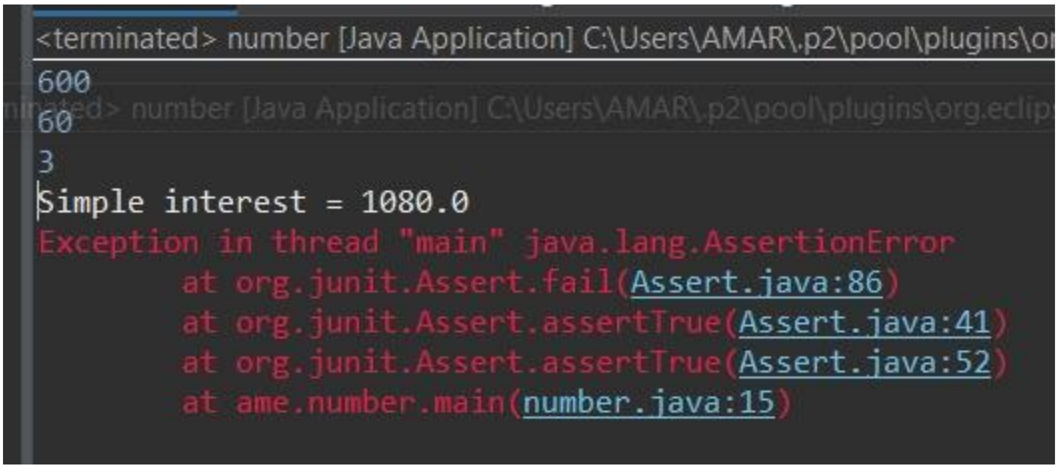
PROGRAM

```
import static org.junit.Assert.assertTrue;
import java.util.Scanner;
class intrest
{
        public static void main(String[] args)
        {
                Scanner sc=new Scanner(System.in);
                float P=sc.nextFloat();
                float R=sc.nextFloat();
                float T=sc.nextFloat();
                float SI = (P * T * R) / 100;
                System.out.println("Simple interest = " + SI);
                assertTrue(3600==SI);
                }
        }
```

OUTPUT



```
<terminated> number [Java Applicatior
600
600
1
Simple interest = 3600.0
```



```
<terminated> number [Java Application] C:\Users\AMAR\.p2\pool\plugins\or
600
60
3
Simple interest = 1080.0
Exception in thread "main" java.lang.AssertionError
        at org.junit.Assert.fail(Assert.java:86)
        at org.junit.Assert.assertTrue(Assert.java:41)
        at org.junit.Assert.assertTrue(Assert.java:52)
        at ame.number.main(number.java:15)
```

EXP NO : 15

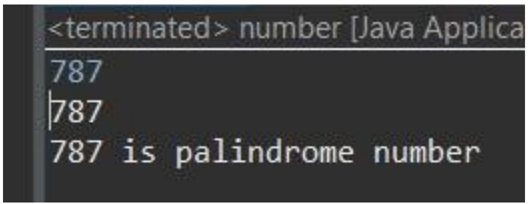
Check whether the given number is palindrome or not and verify the output values should verify using white box testing.

AIM: To check whether the given number is palindrome or not and verify the result using assertTrue code.

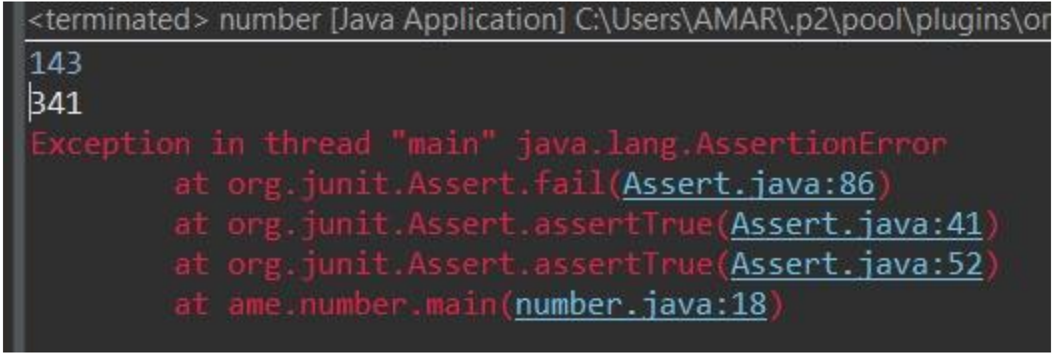
PROGRAM

```
import java.util.Scanner;
import static org.junit.Assert.assertTrue;
public class palindrome
{
        public static void main(String args[])
        {
                Scanner in = new Scanner(System.in);
                int r, sum = 0, temp; int n = in.nextInt();
                temp = n;
                while (n > 0)
                {
                        r = n % 10; n = n / 10;
                        sum = (sum * 10)+r;
                }
                System.out.println(sum);
                assertTrue(787==sum);
                if(temp==sum)
                        System.out.println(sum+" is palindrome number");
                else
                        System.out.println(sum+" is not palindrome number");
                }
                }
```

OUTPUT



```
<terminated> number [Java Applica
787
787
787 is palindrome number
```



```
<terminated> number [Java Application] C:\Users\AMAR\.p2\pool\plugins\or
143
341
Exception in thread "main" java.lang.AssertionError
        at org.junit.Assert.fail(Assert.java:86)
        at org.junit.Assert.assertTrue(Assert.java:41)
        at org.junit.Assert.assertTrue(Assert.java:52)
        at ame.number.main(number.java:18)
```

EXP NO : 16

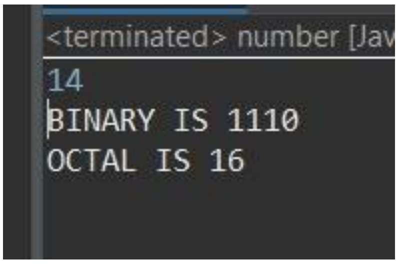
Write a program to convert Decimal number equivalent to Binary number and octal numbers. The output values should verify using white box testing.

AIM: To convert the decimal number to its equivalent binary number and octal number and the output values verified using Assert code.

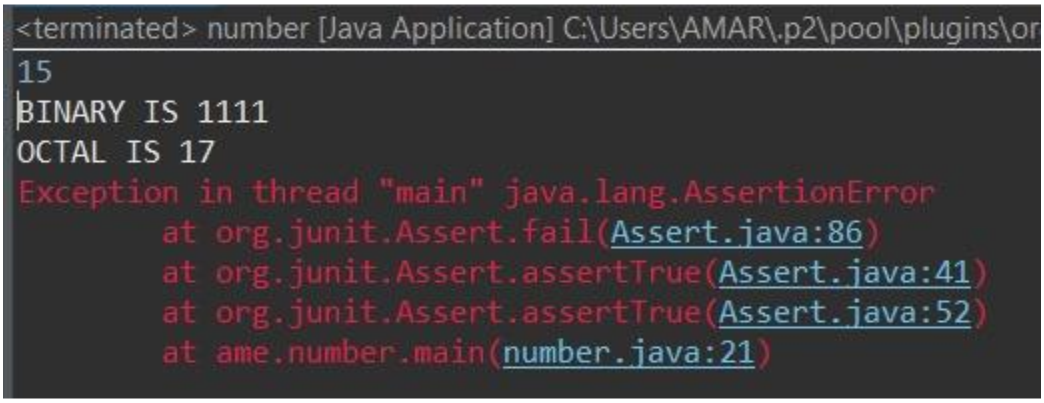
PROGRAM

```
import static org.junit.Assert.assertTrue;
import java.util.Scanner;
class binary

{
        public static void main(String[] args)
        { Scanner in = new Scanner(System.in);
        // decimal number
        int decimal = in.nextInt();
        // convert decimal to binary
        String binary = Integer.toBinaryString(decimal);

        System.out.println("BINARY IS " + binary);
        //convert decimal to octal
        System.out.print("OCTAL IS ");
        System.out.println(Integer.toOctalString(decimal));
        //assertEqual("1100" , binary);
        assertTrue(14== decimal);

         }

        }
```

OUTPUT



```
<terminated> number [Jav
14
BINARY IS 1110
OCTAL IS 16
```



```
<terminated> number [Java Application] C:\Users\AMAR\.p2\pool\plugins\or
15
BINARY IS 1111
OCTAL IS 17
Exception in thread "main" java.lang.AssertionError
	at org.junit.Assert.fail(Assert.java:86)
	at org.junit.Assert.assertTrue(Assert.java:41)
	at org.junit.Assert.assertTrue(Assert.java:52)
	at ame.number.main(number.java:21)
```

EXP NO : 17

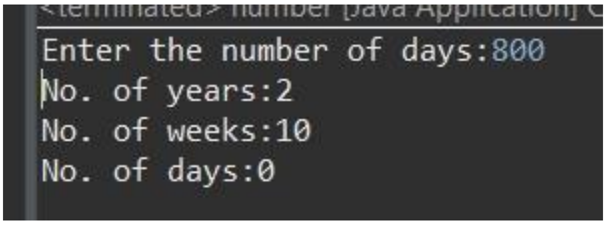
Write a Java Program to Convert a Given Number of Days in Terms of Years, Weeks & Days. The output values should verify using white box testing.

AIM: To convert the given no.of days in terms of years, weeks and days, the output values verified using AssertTrue.

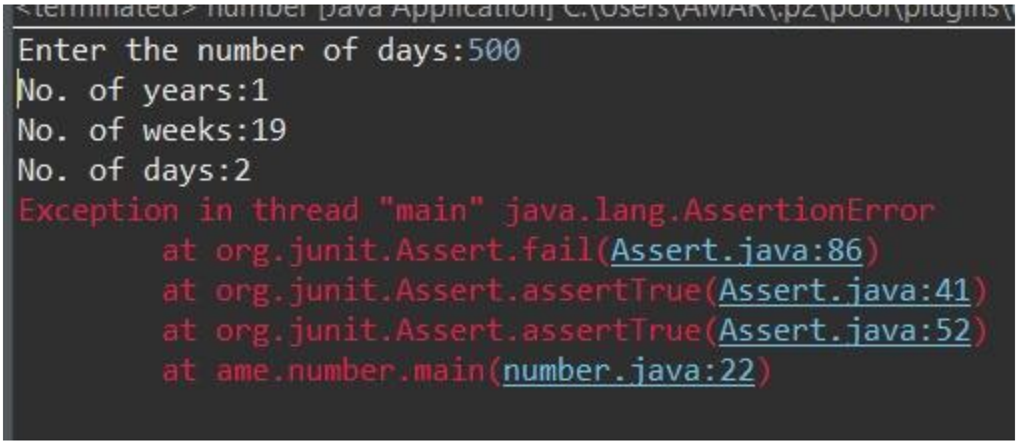
PROGRAM

```
import static org.junit.Assert.assertTrue;
import java.util.Scanner;
public class year
{
        public static void main(String args[])
        {
                int m, year, week, day;
                Scanner s = new Scanner(System.in);
                System.out.print("Enter the number of days:");
                m = s.nextInt();
                year = m / 365;
                assertTrue(2==year);
                m = m % 365;
                System.out.println("No. of years:"+year);
                week = m / 7;
                m = m % 7;
                System.out.println("No. of weeks:"+week);
                day = m;
                System.out.println("No. of days:"+day);  }
                }
```

OUTPUT



```
<terminated> number [Java Application] C
Enter the number of days:800
No. of years:2
No. of weeks:10
No. of days:0
```



```
<terminated> number [Java Application] C:\Users\AMAR\.p2\pool\plugins\
Enter the number of days:500
No. of years:1
No. of weeks:19
No. of days:2
Exception in thread "main" java.lang.AssertionError
	at org.junit.Assert.fail(Assert.java:86)
	at org.junit.Assert.assertTrue(Assert.java:41)
	at org.junit.Assert.assertTrue(Assert.java:52)
	at ame.number.main(number.java:22)
```

EXP NO : 18

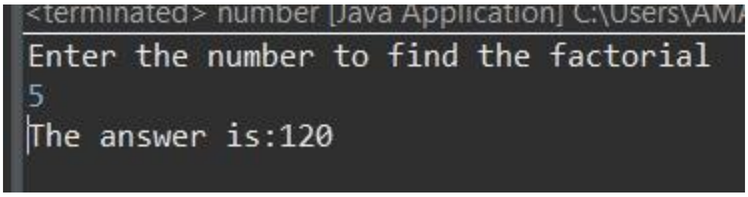
Find the factorial of n. The output values should verify using white box testing.

AIM: To find the factorial for the given n value and the output value should be checked using Assert statement.

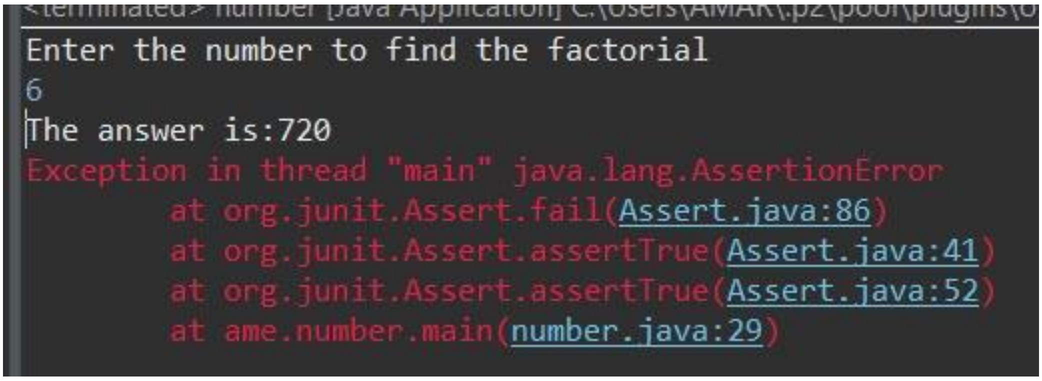
PROGRAM

```
import static org.junit.Assert.assertTrue;
import java.util.Scanner;
class factorial
{
public static void main(String[] args)
{
int i,j,pr=1;
try{
Scanner s=new Scanner(System.in);
System.out.println("Enter the number to find the factorial");
int n=s.nextInt();
if(n<0)
{
System.out.println("Invalid");
}
else if(n==0)
{
System.out.println("1");
}
else
{
for(i=n;i>0;i--)
{
pr=pr*i;
}
System.out.println("The answer is:"+pr);
assertTrue(120==pr);
}
}
catch(Exception e)
{
System.out.println("Invalid");
}
}
}
```

OUTPUT



```
<terminated> number [Java Application] C:\Users\AMA
Enter the number to find the factorial
5
The answer is:120
```



```
<terminated> number [Java Application] C:\Users\AMAR\.p2\pool\plugins\o
Enter the number to find the factorial
6
The answer is:720
Exception in thread "main" java.lang.AssertionError
	at org.junit.Assert.fail(Assert.java:86)
	at org.junit.Assert.assertTrue(Assert.java:41)
	at org.junit.Assert.assertTrue(Assert.java:52)
	at ame.number.main(number.java:29)
```

EXP NO : 19

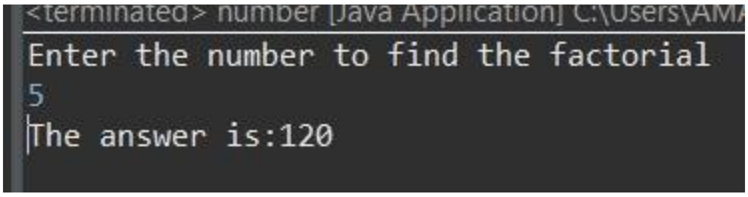
Find the year of the given date is leap year or not .The output values should verify using white box testing

AIM: To find the year of the given date is leap year or not and the result is verified using whitebox testing.

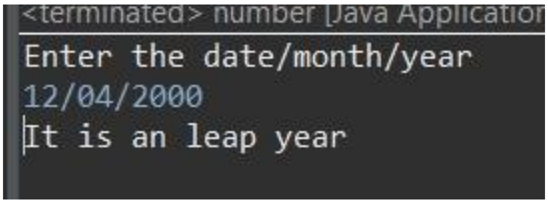
PROGRAM

```
import static org.junit.Assert.assertTrue;
 import java.util.Scanner;
class leapyear
{
        public static void main(String[] args)
        {
        int i=0;
        System.out.println("Enter the date/month/year");
        Scanner s=new Scanner(System.in);
        String re=s.next();
        String[] r=re.split("/",3);
        int x=Integer.parseInt(r[2]);
        assertTrue(x==2000);
        if(x%4==0)
        {
        System.out.println("It is an leap year");

        }
        else{
        System.out.println("It is not a leap year:");
        }
        }
}
```

OUTPUT



```
<terminated> number [Java Application] C:\Users\AMA
Enter the number to find the factorial
5
The answer is:120
```



```
<terminated> number [Java Applicatior
Enter the date/month/year
12/04/2000
It is an leap year
```

EXP NO : 20

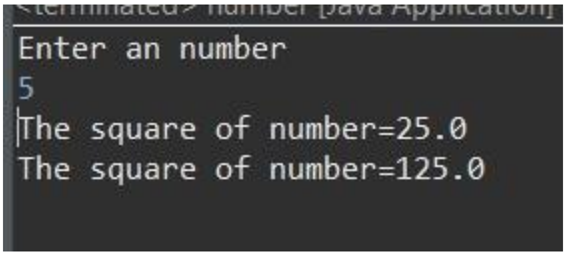
Write a program to find the square, cube of the given decimal number. The output values should verify using white box testing

AIM: To write a program to find the square, cube of the given decimal number. The output values should verify using white box testing.

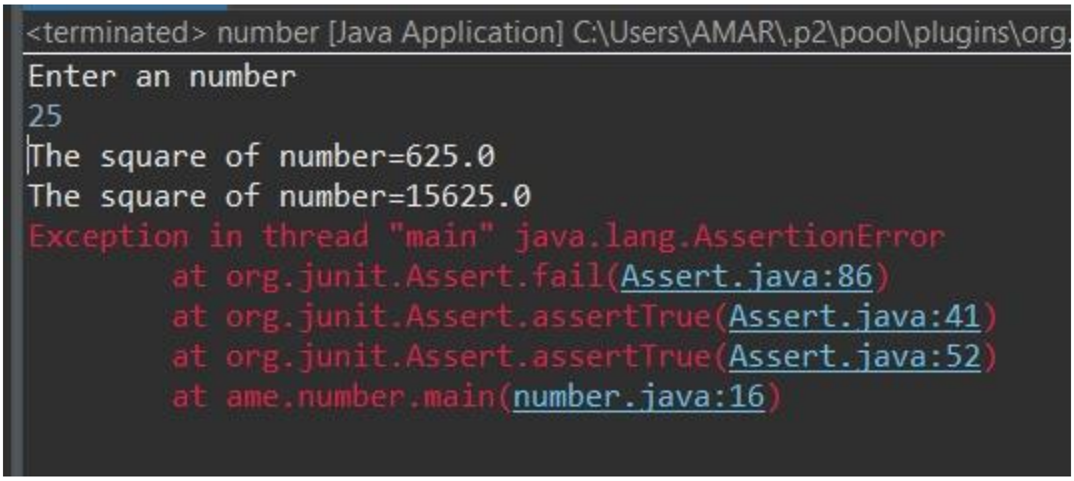
PROGRAM

```
import static org.junit.Assert.assertTrue;
import java.util.Scanner;
public class CubeSquare{
public static void main(String[] args)
{
try{
Scanner s=new Scanner(System.in);
System.out.println("Enter an number");
double n=s.nextDouble();
double a=0,b=0;
a=n*n;
b=n*n*n;
System.out.println("The square of number="+a);
System.out.println("The square of number="+b);
}
catch(Exception e)
{
System.out.println("Invalid");
}
}
assertTrue(expected output==a);
assertTrue(expected output ==b);
}
```

OUTPUT



```
<terminated> number [Java Application]
Enter an number
5
The square of number=25.0
The square of number=125.0
```



```
<terminated> number [Java Application] C:\Users\AMAR\.p2\pool\plugins\org.
Enter an number
25
The square of number=625.0
The square of number=15625.0
Exception in thread "main" java.lang.AssertionError
	at org.junit.Assert.fail(Assert.java:86)
	at org.junit.Assert.assertTrue(Assert.java:41)
	at org.junit.Assert.assertTrue(Assert.java:52)
	at ame.number.main(number.java:16)
```

EXP NO : 21

Write a Selenium program for automation and open a chrome browser with google.com

AIM: To write a Selenium program to automate the process of opening a Chrome browser and navigating to the website "google.com."

DESCRIPTION

The specific requirements for this program are as follows:

Selenium Automation:

The program should utilize the Selenium framework to automate browser interactions.
Selenium provides a set of libraries and tools for browser automation, allowing us to simulate user actions and perform tasks programmatically.

Open Chrome Browser:

The program should initiate and open a Chrome browser instance.
It should utilize the WebDriver component of Selenium to establish a connection with the browser.
WebDriver acts as a bridge between the automation script and the browser, allowing control and interaction with the browser's functionalities.

Navigate to "google.com":

The program should instruct the Chrome browser to navigate to the website "google.com."
It should utilize WebDriver commands to perform this action, such as driver.get ("https://www.google.com"), where driver is the WebDriver instance.

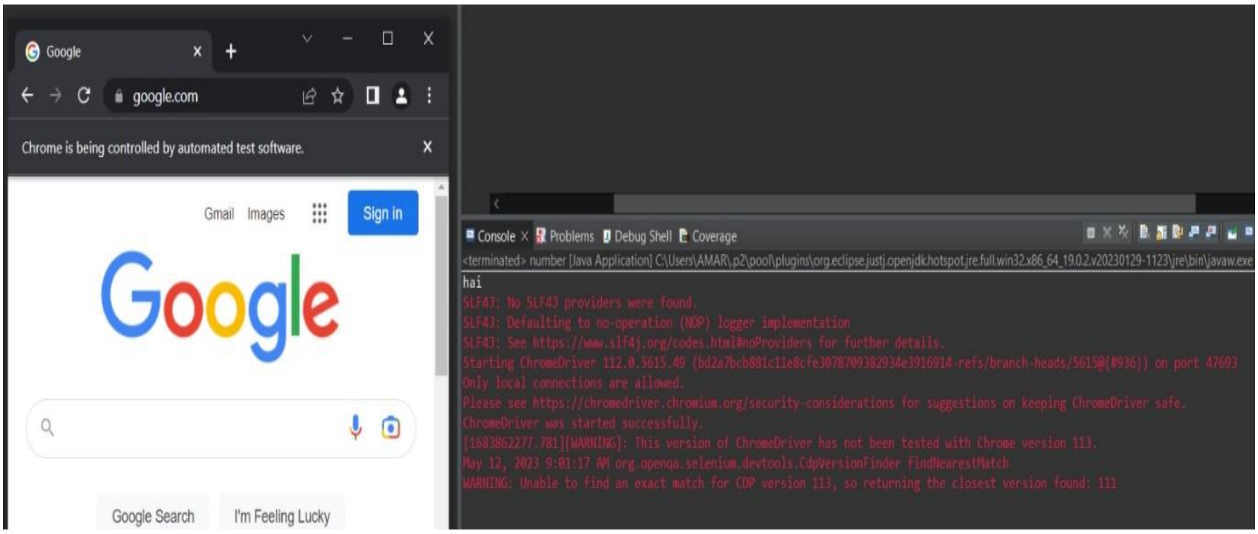
Verification:

The program should ensure that the browser successfully opens and navigates to "google.com" without any errors.
It should validate the expected behavior by checking that the page title or a specific element on the page is present.

PROGRAM

```
package ame;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
public class CHROME{
        public static void main(String[] args) {
                System.out.println("hai");
        System.setProperty("webdriver.chrome.driver","C:\\\\chromedriver_win32\\chromedriver.exe");
                WebDriver driver = new ChromeDriver();
                driver.manage().window().maximize();
                driver.get("https://www.google.com/");
                        }
}
```

OUTPUT



Chrome is being controlled by automated test software.

```
<terminated> number [Java Application] C:\Users\AMAR\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_19.0.2.v20230129-1123\jre\bin\javaw.exe
hai
SLF4J: No SLF4J providers were found.
SLF4J: Defaulting to no-operation (NOP) logger implementation
SLF4J: See https://www.slf4j.org/codes.html#noProviders for further details.
Starting ChromeDriver 112.0.5615.49 (bd2a7bcb881c11e8cfe3078709382934e3916914-refs/branch-heads/5615@{#936}) on port 47693
Only local connections are allowed.
Please see https://chromedriver.chromium.org/security-considerations for suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully.
[1683862277.781][WARNING]: This version of ChromeDriver has not been tested with Chrome version 113.
May 12, 2023 9:01:17 AM org.openqa.selenium.devtools.CdpVersionFinder findNearestMatch
WARNING: Unable to find an exact match for CDP version 113, so returning the closest version found: 111
```

EXP NO : 22

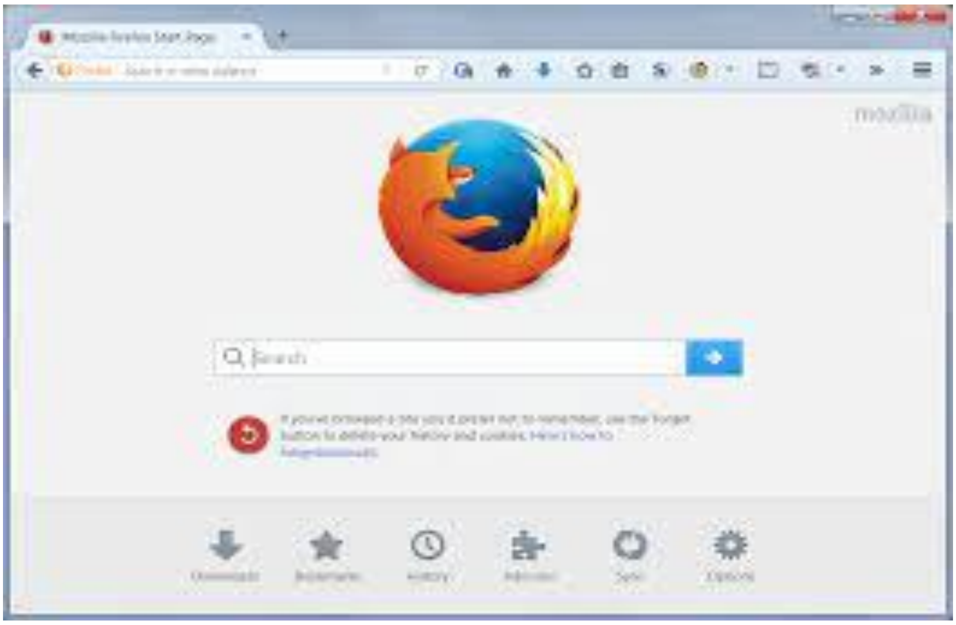
Write a program for automation and open a Mozila browser with google.com

AIM: To write a Selenium program to automate the process of opening the Mozilla Firefox browser and navigating to google.com.

PROGRAM:

```
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.firefox.FirefoxDriver;

public class SeleniumExample {
   public static void main(String[] args) {
      // Set the path to the geckodriver executable
      System.setProperty("webdriver.gecko.driver", "/path/to/geckodriver");

      // Create a new instance of the Firefox driver
      WebDriver driver = new FirefoxDriver();

      // Navigate to Google
      driver.get("https://www.google.com");

      // Close the browser
      driver.quit();
   }
}
```

OUTPUT



If you've browsed a site you'd prefer not to remember, use the Forget button to delete your history and cookies. Here's how to [illegible]

EXP NO : 23

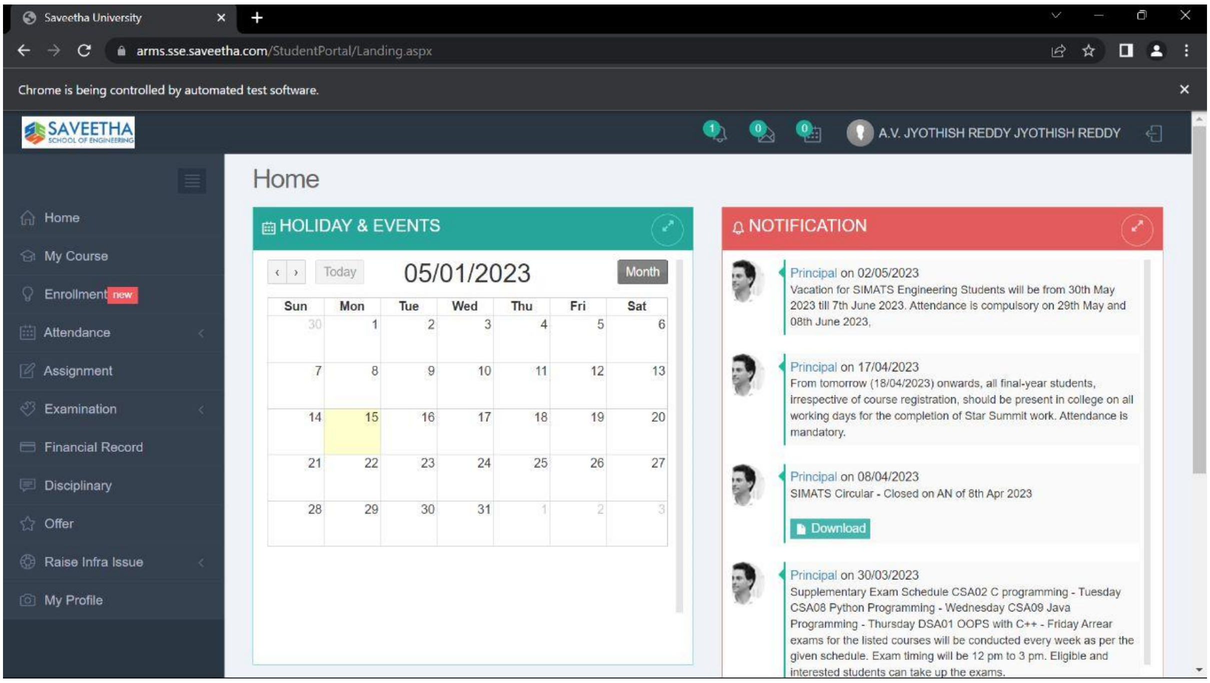
Selenium program to Automate login in ARMS Portal with the help of Chrome browser

AIM: To write a Selenium program to automate the process of login in ARMS portal.

PROGRAM

```
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
public class loginpage {
        public static void main(String[] args) {
System.out.println("hai");
System.setProperty("webdriver.chrome.driver","C:\\selenium\\chromedriver_win32\\chromed
river.exe");
                WebDriver driver = new ChromeDriver();
driver.manage().window().maximize();
                        driver.get("https://arms.sse.saveetha.com");
                WebElement username=driver.findElement(By.id("txtusername"));
System.out.println(username);
WebElement password=driver.findElement(By.id("txtpassword"));
System.out.println(password);
WebElement login=driver.findElement(By.name("btnlogin"));
System.out.println(login);
username.sendKeys(".XXXXX");
password.sendKeys("XXXXX");
login.click();
        }
```

OUTPUT



Chrome is being controlled by automated test software.

Home

HOLIDAY & EVENTS

05/01/2023

Sun	Mon	Tue	Wed	Thu	Fri	Sat
30	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3

NOTIFICATION

Principal on 02/05/2023
Vacation for SIMATS Engineering Students will be from 30th May 2023 till 7th June 2023. Attendance is compulsory on 29th May and 08th June 2023,

Principal on 17/04/2023
From tomorrow (18/04/2023) onwards, all final-year students, irrespective of course registration, should be present in college on all working days for the completion of Star Summit work. Attendance is mandatory.

Principal on 08/04/2023
SIMATS Circular - Closed on AN of 8th Apr 2023

Principal on 30/03/2023
Supplementary Exam Schedule CSA02 C programming - Tuesday CSA08 Python Programming - Wednesday CSA09 Java Programming - Thursday DSA01 OOPS with C++ - Friday Arrear exams for the listed courses will be conducted every week as per the given schedule. Exam timing will be 12 pm to 3 pm. Eligible and interested students can take up the exams.

EXP NO : 24

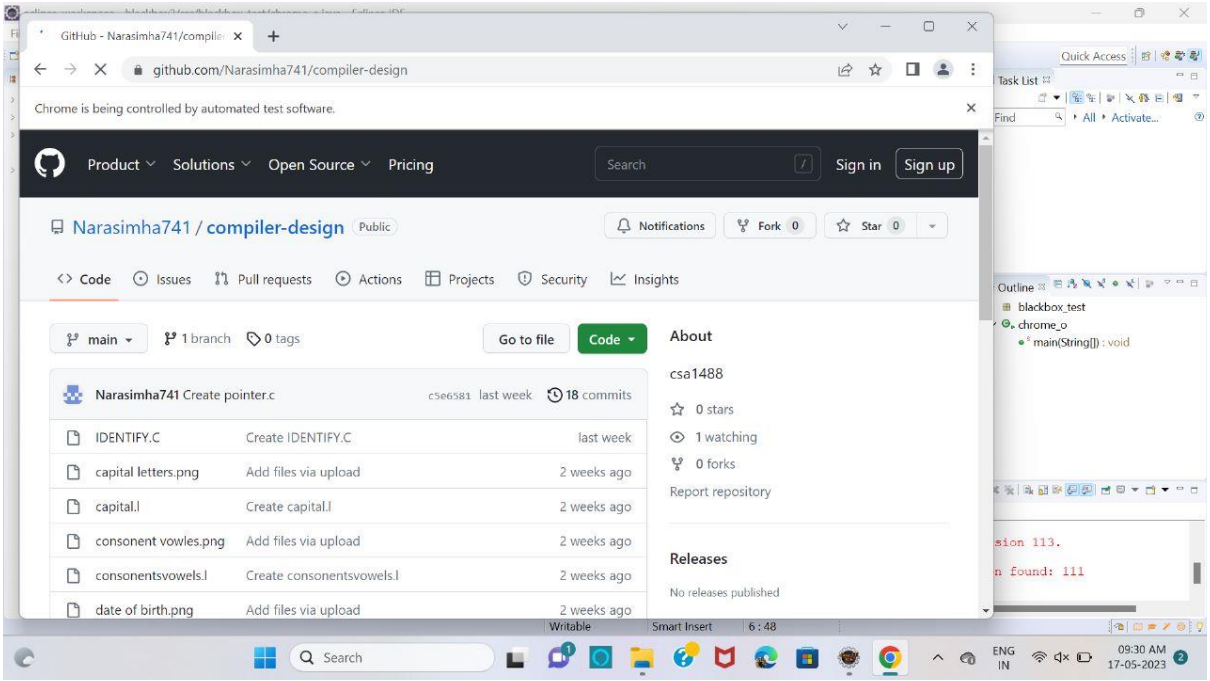
Selenium program Automate login in Github Portal with the help of Chrome browser

AIM: To write a Selenium program to automate the process of login in Github Portal with the help of Chrome browser.

PROGRAM

```
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;

public class SeleniumExample {
   public static void main(String[] args) {
      // Set the path to the chromedriver executable
      System.setProperty("webdriver.chrome.driver", "/path/to/chromedriver");

      // Create a new instance of the Chrome driver
      WebDriver driver = new ChromeDriver();

      // Navigate to GitHub
      driver.get("https://github.com");

      // Close the browser
      driver.quit();
   }
}
```

OUTPUT



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Narasimha741 Create pointer.c c5e6581 last week 18 commits

IDENTIFY.C	Create IDENTIFY.C	last week
capital letters.png	Add files via upload	2 weeks ago
capital.l	Create capital.l	2 weeks ago
consonent vowles.png	Add files via upload	2 weeks ago
consonentsvowels.l	Create consonentsvowels.l	2 weeks ago
date of birth.png	Add files via upload	2 weeks ago

EXP NO : 25

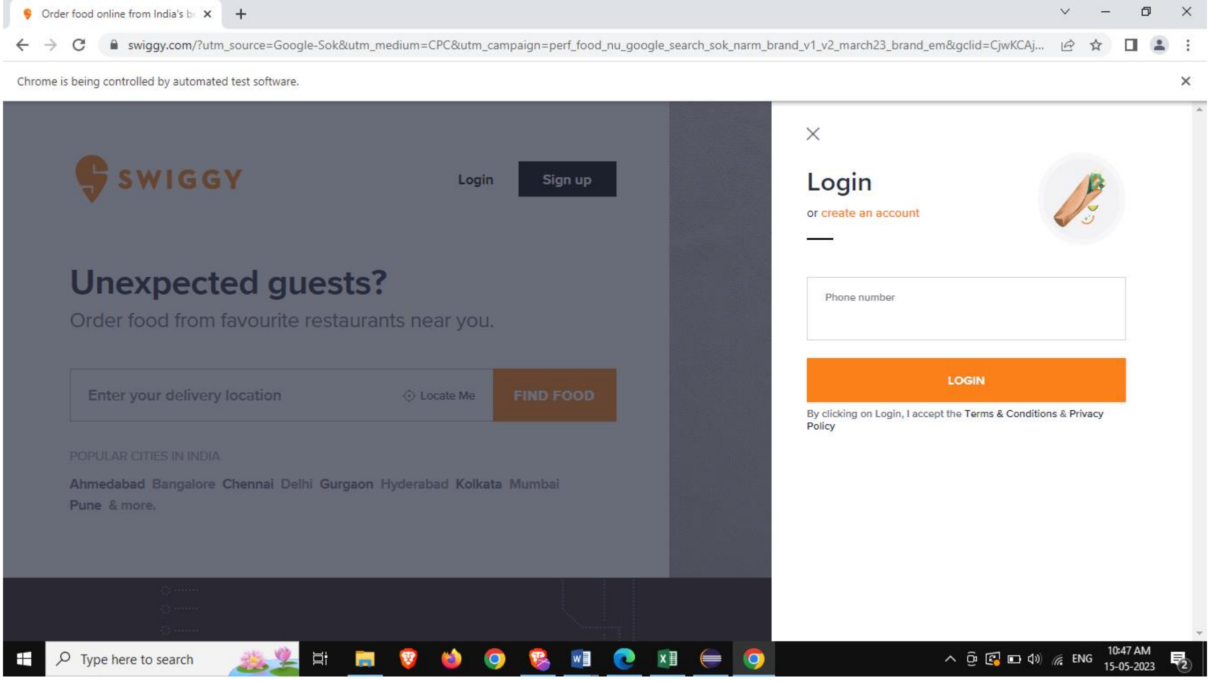
Write a Selenium program Automate login in Swiggy Portal with the help of Chrome browser.

AIM: To write a Selenium program to automate the process of login in Swiggy Portal with the help of Chrome browser.

PROGRAM

```
package Proj;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;

public class loginpage {
public static void main(String s[]) {

        WebDriver driver = new ChromeDriver();
        System.setProperty("webdriver.chrome.driver","C://chromedriver.exe");
        driver.get("https://www.swiggy.com/?utm_source=Google-
Sok&utm_medium=CPC&utm_campaign=perf_food_nu_google_search_sok_narm_brand_v
1_v2_march23_brand_em&gclid=CjwKCAjwjYKjBhB5EiwAiFdSfrdLVA-
UKWyVK60DxCwxHLKmh3lOfjK9ya_mDXHMfbN5Waws1oQUvhoCNFsQAvD_BwE");

        WebElement textBox = driver.findElement(By.className("x4bK8"));
                driver.manage().window().maximize();
                        textBox.click();

 }
}
```

OUTPUT



Chrome is being controlled by automated test software.

swiggy.com/?utm_source=Google-Sok&utm_medium=CPC&utm_campaign=perf_food_nu_google_search_sok_narm_brand_v1_v2_march23_brand_em&gclid=CjwKCAj...

Unexpected guests?

Order food from favourite restaurants near you.

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CO-PO ATTAINMENT