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Testing E-Commerce website ‘gcrShop’ using Selenium

Final Review

Submitted in partial fulfilment of the requirements for the award of the course

SOFTWARE TESTING (SWE2005)

Slot: E1+TE1

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DECLARATION

We hereby declare that this project work **Testing E-Commerce website ‘gcrShop’ using Selenium** is the result of our original piece of research work conducted between Fall Semester 22-23 under the supervision of Dr. Gitanjali J Associate Professor of VIT, Vellore.

This work has never been submitted in whole or in part in any institution for any award(s)

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Testing E-Commerce website ‘gcrShop’ using Selenium

Abstract

“gcrShop” is an ecommerce website used to buy various kinds of stuff, from books to software. User can Log in , search , add to cart and process payment directly from it.

We will use Selenium in Eclipse to perform white box testing to ensures that software and applications perform well and meet users' needs. It is intended to expose problems such as defects. Software testing allows project managers to make informed decisions about moving forward.

Objective

The main objectives of the test plan are as follows: -

- To identify the features of the system that will be tested.
- To identify and define all the activities necessary to prepare for and conduct the testing process
- To define the pass/fail criteria for each item that will be tested.
- To identify the deliverables of the testing phase.
- To define any suspension criteria and resumption techniques.
- To discuss the testing techniques being used to test the “gcrShop” is an ecommerce

Tool Name

Selenium in Eclipse

Tool information

Selenium is an open-source tool that automates web browsers. It provides a single interface that lets you write test scripts in programming languages like Ruby, Java, NodeJS, PHP, Perl, Python, and C#, among others.

Selenium is one of the most renowned open-source test automation frameworks. Selenium allows test automation of web-apps or websites across different browsers & operating systems. Selenium offers compatibility with multiple programming languages such as Java, JavaScript, Python, C# and more, allowing testers to automate their website testing in any programming language that they are comfortable with.

Using Selenium framework, testers are able to deliver test cycles faster by automating repeated test cases. When integrated with CI/CD pipeline, Selenium can also help with a sturdy, bug-free release deployment pipeline.

Selenium WebDriver comprises of 4 main components:

1. Selenium Client Libraries
2. JSON Wire Protocol Over HTTP Client
3. Browser Drivers
4. Real Browsers

TESTING METHODOLOGY

For our project we are going to perform both Blackbox and Whitebox testing.

Black Box Testing

It is a software testing method in which the functionalities of software applications are tested without having knowledge of internal code structure, implementation details and internal paths.

In this, we are going to perform Decision Table Testing . Decision Table Testing is a software testing methodology used to test system behavior for various input combinations. In this systematic approach, the several input combinations and their corresponding system behavior are represented in tabular form.

Decision Table Testing

A scenario of payment initialization

Condition	R1	R2	R3	R4	R5	R6	R7	R8
Registered User?	F	F	F	F	T	T	T	T
Stock Available?	F	F	T	T	F	F	T	T
Buying Under Maximum Limit?	F	T	F	T	F	T	F	T
Payment Initialization	NO	YES						

Condition	R1	R2	R3	R4
Registered User?	F	T	T	T

Stock Available?	-	F	T	T
Buying Under Maximum Limit?	-	-	F	T
Payment Initialization	NO	NO	NO	YES

User will only be able to initialize payment when he/she is a registered user, the item is in stock and the item is being bought under the buying limit

White Box Testing

It is a software testing method which analyse the internal structures that consist of data structures, internal design, code structure and the working of the software rather than the functionalities. In this, we are going to perform logic coverage criteria and basic path testing. In logic coverage criteria, logic corresponds to the internal structure of the code is tested. In basic path testing, various possible control paths are tested.

PROJECT MODULE

Login:

User can Log in to the website from username and password

Registration

User can register newly to the website . He make a new username and password and give delivery address

Home Page

Shows all catalogues, user info, Shopping Cart, Search.

Search

The user can search for any item they are interested in .

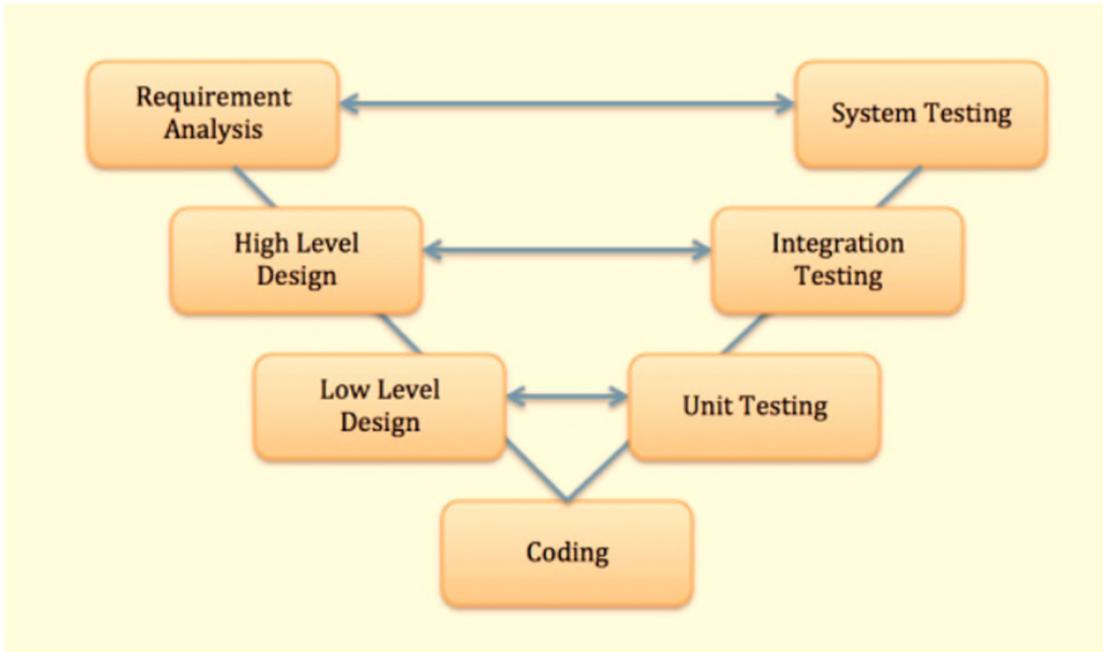
Shopping Cart

If the user is interested in a item they store it in shopping cart and continue shopping.

Checkout

User can buy the item in shopping During checkout user will be shown the product detail and payment detail

V MODEL



Phases of Software Development

Activities performed in each stage

Requirement Gathering stage

- Gather as much information as possible about the details & specifications of the desired software from the client. This is nothing but the Requirements gathering stage.

All the product that can located, with their prices, stock ,information , time of delivery, payment, suggestion ,comment ,etc.

Design Stage

- Plan the programming language like [Java](#), [PHP](#), .net; database like Oracle, MySQL, etc. Which would be suited for the project, also some high-level functions & architecture.

Designed using Java, HTML with MySQL

- Build Stage**
 - After the design stage, it is build stage, that is nothing but actually code the software
- Test Stage**
 - Next, you test the software to verify that it is built as per the specifications are given by the client.
 - Testing using Functional testing
- Deployment stage**
 - Deploy the application in the respective environment
 - Deployed using Eclipse in Firefox browser
- Maintenance stage**
 - Once your system is ready to use, you may require to change the code later on as per customer request
 - Make it more user friendly , bring more traffic

Test Cases

Test Case ID	Test Case	Test Step	Test Data	Expected Result	Actual Result	Status
TC001	Verify that home page is displayed	1. Open browser 2. Open URL	URL= https://gcreddy.com/project/	<ul style="list-style-type: none"> • Browser should be opened • Ecommerce website should be opened 	Home page displayed	PASS
TC002	Verify login and create account displayed in homepage elements	1. Open browser 2. Open URL	URL= https://gcreddy.com/project/	<ul style="list-style-type: none"> • Browser should be opened • Ecommerce website should be opened 	Login icon displayed Create an account displayed	PASS
TC003	Verify create account	1. Open browser 2. Open URL 3. Click create account	email_address=john@gmail.com street_address=xyz street postcode=110033 city=Delhi state=Delhi country=India telephone=9988776655 password=MyPassword confirmation=MyPassword	• Account registered	Account registered	PASS
TC004	Verify login	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button	Email Address = john@gmail.com Password= MyPassword	<ul style="list-style-type: none"> • Browser should be opened • Ecommerce website should be opened • user should be able to input username and password • Home page should be displayed after login and user name should be displayed on home page 	Homepage displayed	PASS
TC005	Verify shopping cart	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Select a product 6. Click add to cart	Email Address = john@gmail.com Password= MyPassword	<ul style="list-style-type: none"> • Browser should be opened • Ecommerce website should be opened • user should be able to input username and password • product is displayed in cart 	Product added to cart	PASS
TC006	Verify Checkout	Open browser Open url Enter username and password	Email Address = john@gmail.com Password= MyPassword	<ul style="list-style-type: none"> • Browser should be opened • Ecommerce website 	Product Purchased	PASS

		Click on login button Select a product Click add to cart Click Checkout Click Continue Click Continue Click Continue		should be opened • user should be able to input username and password • product is displayed in cart • product is purchased		
TC007	Verify that user name is displayed on home page or not	7. Open browser 8. Open url 9. Enter username and password 10. Click on login button	Email Address = john@gmail.com Password= MyPassword	• Browser should be opened • Ecommerce website should be opened • user should be able to input username and password • Home page should be displayed after login and user name should be displayed on home page	User name NOT displayed on home page	FAIL
TC008	Verify that featured products are displayed on home page	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button	Email Address = john@gmail.com Password= MyPassword	• Browser should be opened • Ecommerce website should be opened • user should be able to input username and password • Home page should be displayed after login and Features products should be displayed on home page	Features products should be displayed on home page	PASS
TC009	Verify that Search Functionality is present on home page	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button	Email Address = john@gmail.com Password= MyPassword	• Browser should be opened • Ecommerce website should be opened • user should be able to input username and password • Home page should be displayed after login and Features products should be displayed on home page	Search functionality is present on home page.	PASS

TC010	Verify the alignment on the home page	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button	Email Address = john@gmail.com Password= MyPassword	<ul style="list-style-type: none"> • Browser should be opened • Ecommerce website should be opened • user should be able to input username and password • User should be logged in and alignment of products on home page should be proper. 	alignment of products on home page NOT proper.	FAIL
TC011	Verify that products displayed on home page are clickable.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Click on any product displayed on home page	Email Address = john@gmail.com Password= MyPassword	<ul style="list-style-type: none"> • Browser should be opened • Ecommerce website should be opened • user should be able to input username and password • User should be redirected to product specification page. 	User should be redirected to product specification page.	PASS
TC012	Verify that when user clicks on a product, user should be redirected to product specification page.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Click on any product displayed on home page	Email Address = john@gmail.com Password= MyPassword	<ul style="list-style-type: none"> • Browser should be opened • Ecommerce website should be opened • user should be able to input username and password • User should be redirected to product specification page. 	User should be redirected to product specification page.	PASS
TC013	Verify that user profile section is present on home page.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Click on any product displayed	Email Address = john@gmail.com Password= MyPassword	<ul style="list-style-type: none"> • Browser should be opened • Ecommerce website should be opened • user should be able to input username and password • User profile should be displayed. 	User profile NOT displayed.	FAIL

		on home page				
TC014	Verify that products displayed on home page are categorised.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button	Email Address = john@gmail.com Password= MyPassword	<ul style="list-style-type: none"> • Browser should be opened • Ecommerce website should be opened • user should be able to input username and password • User should be logged in and home page should be displayed, products should be categorised. 	products NOT categorised.	FAIL
TC015	Verify that search field accepts alphabets, numbers or symbols.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Click on search field.	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> • Browser should be opened • Ecommerce website should be opened • user should be able to input username and password • Home page should be displayed after login and user name should be displayed on home page • Search field should accept alphabets, numbers or symbols.Show Info about Cal-fx101 	Show Info about Cal-fx101	PASS
TC016	Verify that after entering search text and clicking on search icon, the search should be performed.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Enter search text in search field and click on search icon.	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> • Browser should be opened • Ecommerce website should be opened • user should be able to input username and password • Home page should be displayed after login and user name should be displayed on home page • Search should be performed 	Search should be performed according to search text provided by user.	PASS

				<ul style="list-style-type: none"> should be displayed on home page Search should be performed according to search text provided by user. 		
TC017	Verify that the search results should be as per the search query.	<ol style="list-style-type: none"> Open browser Open url Enter username and password Click on login button Enter search text in search field and click on search icon. 	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> Browser should be opened Ecommerce website should be opened user should be able to input username and password Home page should be displayed after login and user name should be displayed on home page Search should be performed according to search text provided by user. 	Search should be performed according to search text provided by user.	PASS
TC018	Verify that user should be able to search based on product name, brand name or product specification.	<ol style="list-style-type: none"> Open browser Open url Enter username and password Click on login button Enter search text in search field and click on search icon. 	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> Browser should be opened Ecommerce website should be opened user should be able to input username and password Home page should be displayed after login and user name should be displayed on home page User should be able to perform search bases on product name, brand name or product specification. 	User NOT able to search by product specification.	FAIL
TC019	Verify that filter should be present for filtering the search results bases on Brand, Price, Reviews or Ratings.	<ol style="list-style-type: none"> Open browser Open url Enter username and password Click on login button Enter search text in search field and click on search icon. 	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> Browser should be opened Ecommerce website should be opened user should be able to input username and password Home page should be displayed after login and user name should be displayed on home page Search should be performed according to search text provided by user and filters should be present. 	filters NOT present.	FAIL

TC020	Verify that sorting options should be present on search results page.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Enter search text in search field and click on search icon.	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> • Browser should be opened • Ecommerce website should be opened • user should be able to input username and password • Home page should be displayed after login and user name should be displayed on home page • Search should be performed according to search text provided by user and sorting options should be present on search results page. 	sorting option NOT present.	FAIL
TC021	Verify that the number of search results displayed on one page.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Enter search text in search field and click on search icon.	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> • Browser should be opened • Ecommerce website should be opened • user should be able to input username and password • Home page should be displayed after login and user name should be displayed on home page • Search should be performed according to the search text provided and a specific number of results should be displayed on one page. 	specific number of results NOT displayed on one page.	FAIL
TC022	Verify that there should be navigation button(Next and Previous) for navigation to pages.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Enter search text in search field and click on search icon.	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> • Browser should be opened • Ecommerce website should be opened • user should be able to input username and password • Home page should be displayed after login and user name should be displayed on home page • Search should be performed according to text provided by user and navigation button should be present on search result page. 	navigation button not present on search result page.	FAIL

TC023	Verify that user should be perform search in different categories for example, Movies, Books, Grocery etc.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Enter search text in search field and click on search icon.	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> • Browser should be opened • Ecommerce website should be opened • user should be able to input username and password • Home page should be displayed after login and user name should be displayed on home page • Search should be performed in different categories such as movies, books, grocery etc. 	different categories such as movies, books, grocery etc.	PASS
TC024	Verify that images of product are displayed correctly.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Click on a product displayed on home page.	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> • Browser should be opened • Ecommerce website should be opened • user should be able to input username and password • Home page should be displayed after login and user name should be displayed on home page • the images of product should be displayed correctly. 	the images of product NOT displayed correctly.	FAIL
TC025	Verify that price of product is displayed.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Click on a product displayed on home page.	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> • Browser should be opened • Ecommerce website should be opened • user should be able to input username and password • Home page should be displayed after login and user name should be displayed on home page • the price of product should be displayed correctly. 	the images of product displayed correctly.	PASS
TC026	Verify that product specifications are displayed.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Click on a product displayed on home page.	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> • Browser should be opened • Ecommerce website should be opened • user should be able to input username and password • Home page should be displayed after login and user name should be displayed on home page 	Product specifications should be displayed.	FAIL

				• Product specifications should be displayed.		
TC027	Verify that shipping information about product are displayed.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Click on a product displayed on home page.	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> Browser should be opened Ecommerce website should be opened user should be able to input username and password Home page should be displayed after login and user name should be displayed on home page <p>All the shipping info of product should be displayed.</p>	All the shipping info of product should be displayed.	PASS
TC028	Verify that information about IN-Stock/Out-Stock are displayed.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Click on a product displayed on home page.	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> Browser should be opened Ecommerce website should be opened user should be able to input username and password Home page should be displayed after login and user name should be displayed on home page Stock information should be displayed. 	Stock information NOT displayed.	FAIL
TC029	Verify that seller ratings should be displayed.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Click on a product displayed on home page.	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> Browser should be opened Ecommerce website should be opened user should be able to input username and password Home page should be displayed after login and user name should be displayed on home page The seller ratings should be displayed. 	The seller ratings NOT displayed.	FAIL
TC030	Verify that all the variations of product are displayed.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Click on a product displayed on home page.	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> Browser should be opened Ecommerce website should be opened user should be able to input username and password Home page should be displayed after login and user name should be displayed on home page All the variations of product should be displayed. 	All the variations of product NOT displayed.	FAIL
TC031	Verify that seller information	6. Open browser 7. Open url	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	• Browser should be opened	All the seller info of product should be displayed.	FAIL

	about product are displayed.	8. Enter username and password 9. Click on login button 10. Click on a product displayed on home page.		<ul style="list-style-type: none"> Ecommerce website should be opened user should be able to input username and password Home page should be displayed after login and user name should be displayed on home page All the shipping info of product should be displayed. 		
TC032	Verify that payment options are mentioned on product page.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Click on a product displayed on home page.	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> Browser should be opened Ecommerce website should be opened user should be able to input username and password Home page should be displayed after login and user name should be displayed on home page The payment options should be displayed. 	The payment options should be displayed.	PASS
TC033	Verify that product suggestions related to product should be displayed.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. click on a product displayed on home page.	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> Browser should be opened Ecommerce website should be opened user should be able to input username and password Home page should be displayed after login and user name should be displayed on home page The product suggestions should be displayed. 	The product suggestions NOT displayed.	FAIL
TC034	Verify that when user clicks on add to cart, the product should be added to cart.	1. Open browser 2. Open url 3. Enter username and password 4. click on login button 5. Click on a product displayed on home page. 6. click on add to cart for the product.	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> Browser should be opened Ecommerce website should be opened user should be able to input username and password Home page should be displayed after login and user name should be displayed on home page The product page should be displayed. The product should be added to cart. 	The total amount of all items in cart wrong displayed.	PASS
TC035	Verify that user should be able to continue	1. Open browser 2. Open url	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> Browser should be opened 	The product should be added to cart and user	PASS

	shopping after adding items to cart.	3. Enter username and password 4. Click on login button 5. Click on a product displayed on home page. 6. Click on add to cart for the product.		<ul style="list-style-type: none"> Ecommerce website should be opened user should be able to input username and password Home page should be displayed after login and user name should be displayed on home page The product page should be displayed. The product should be added to cart and user can continue shopping. 	can continue shopping..	
TC036	Verify that item quantity should be increased if user adds same item in cart again.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Click on a product displayed on home page. 6. Click on add to cart for the product 7. Click on add to cart again for the same product	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> Browser should be opened Ecommerce website should be opened user should be able to input username and password Home page should be displayed after login and user name should be displayed on home page The product page should be displayed. The product should be added to cart. The item quantity should be increases. 	The item quantity should be increases..	PASS
TC037	Verify that total amount of all items should be displayed to user.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Click on a product displayed on home page. 6. Click on add to cart for the product 7. Click on go to cart button.	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> Browser should be opened Ecommerce website should be opened user should be able to input username and password Home page should be displayed after login and user name should be displayed on home page The product page should be displayed. The product should be added to cart. The total amount of all items in cart should be displayed. 	The total amount of all items in cart wrong displayed.	FAIL
TC038	Verity that the amount displayed to user should include the taxes and shipping charges as per location.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Click on a product displayed on home page.	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> Browser should be opened Ecommerce website should be opened user should be able to input username and password Home page should be displayed after login 	The total amount NOT include taxes and shipping charges.	FAIL

		6. Click on add to cart for the product 7. Click on go to cart button.		and user name should be displayed on home page <ul style="list-style-type: none">• The product page should be displayed.• The product should be added to cart.• The total amount should include taxes and shipping charges.		
TC039	Verify that user should not be able to add items in cart beyond a certain limit.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Click on a product displayed on home page. 6. Click on add to cart for the product for many times.	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none">• Browser should be opened• Ecommerce website should be opened• user should be able to input username and password• Home page should be displayed after login and user name should be displayed on home page• The product page should be displayed.• The user should not be allowed to add items to cart beyond a certain limit.	The user able to add items to cart beyond a certain limit.	FAIL
TC040	Verify that when user clicks on remove from cart button the item should be removed from cart.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Click on a product displayed on home page. 6. Click on add to cart for the product 7. Click on remove from cart button.	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none">• Browser should be opened• Ecommerce website should be opened• user should be able to input username and password• Home page should be displayed after login and user name should be displayed on home page• The product page should be displayed.• The product should be added to cart.• The item should be removed form cart.	The item should be removed form cart.	PASS
TC041	Verify that user should be able to apply coupons or vouchers at checkout from cart.	1. Open browser 2. Open url 3. Enter username and password 4. Click on login button 5. Click on a product displayed on home page. 6. Click on add to cart for the product 7. Click on go to cart button.	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none">• Browser should be opened• Ecommerce website should be opened• user should be able to input username and password• Home page should be displayed after login and user name should be displayed on home page• The product page should be displayed.	User NOT be able to apply coupons or vouchers.	FAIL

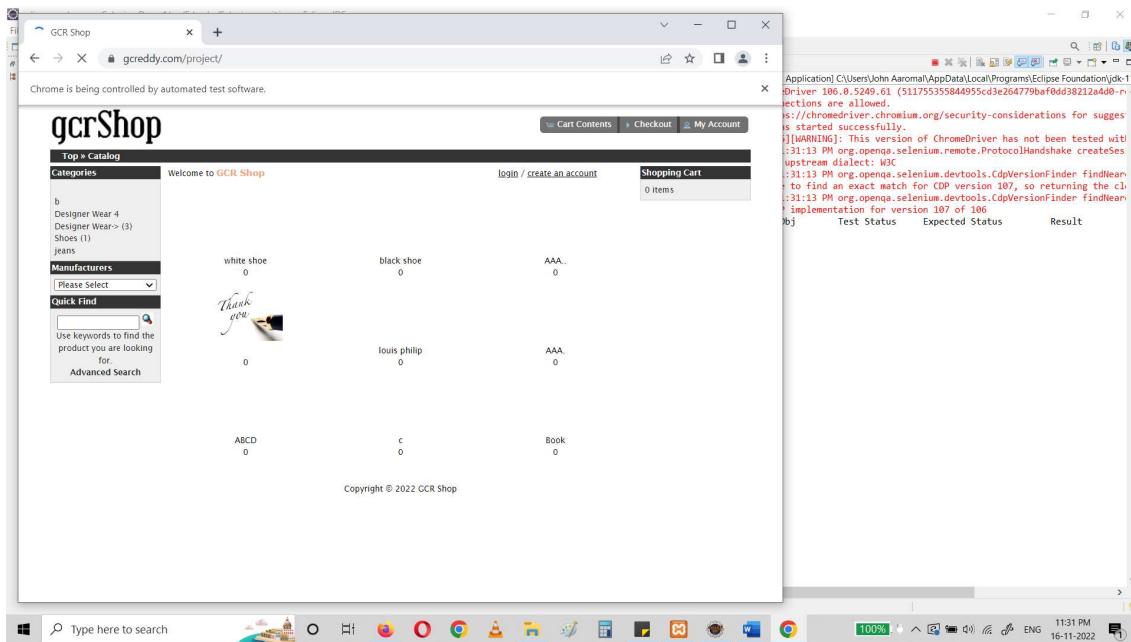
				<ul style="list-style-type: none"> The product should be added to cart. User should be able to apply coupons or vouchers. 		
TC042	Verify that items in cart should be present if user logs out and logs in again.	<ol style="list-style-type: none"> Open browser Open url Enter username and password Click on login button Click on a product displayed on home page. Click on add to cart for the product Click on Logout button Login again with same userid password 	Email Address = john@gmail.com Password= MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> Browser should be opened Ecommerce website should be opened user should be able to input username and password Home page should be displayed after login and user name should be displayed on home page The product page should be displayed. The product should be added to cart. User is logged out. The user should be logged in and the items shold be present in cart. 	The user should be logged in and the items NOT present in cart.	FAIL
TC043	Verify that payments options applicable for the order should be displayed at checkout.	<ol style="list-style-type: none"> Open browser Open url Enter username and password Click on login button Click on a product displayed on home page. Click on add to cart for the product Click on Checkout button. 	Email Address = john@gmail.com Password=MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> Browser should be opened Ecommerce website should be opened user should be able to input username and password Home page should be displayed after login and user name should be displayed on home page The product page should be displayed. The product should be added to cart. The checkout page should be displayed with payments options. 	The checkout page should be displayed with payments options.	PASS
TC044	Verify that delivery details of items should be displayed at checkout.	<ol style="list-style-type: none"> Open browser Open url Enter username and password Click on login button Click on a product displayed on home page. Click on add to cart for the product Click on Checkout button. 	Email Address = john@gmail.com Password=MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> Browser should be opened Ecommerce website should be opened user should be able to input username and password Home page should be displayed after login and user name should be displayed on home page The product page should be displayed. 	The checkout page NOT be displayed with delivery details.	FAIL

				<ul style="list-style-type: none"> The product should be added to cart. The checkout page should be displayed with delivery details. 		
TC045	Verify that user should get order details by message or email.	<ol style="list-style-type: none"> Open browser Open url Enter username and password Click on login button Click on a product displayed on home page. Click on add to cart for the product Click on Checkout button. Make payment. 	Email Address = john@gmail.com Password=MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> Browser should be opened Ecommerce website should be opened user should be able to input username and password Home page should be displayed after login and user name should be displayed on home page The product page should be displayed. The product should be added to cart. The checkout page should be displayed with delivery details. User should get order details by message or email. 	User DIDNTget order details by message or email.	FAIL
TC046	Verify that user should be directed to home page after checkout.	<ol style="list-style-type: none"> Open browser Open url Enter username and password Click on login button Click on a product displayed on home page. Click on add to cart for the product Click on Checkout button. Make payment. 	Email Address = john@gmail.com Password=MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> Browser should be opened Ecommerce website should be opened user should be able to input username and password Home page should be displayed after login and user name should be displayed on home page The product page should be displayed. The product should be added to cart. The checkout page should be displayed with delivery details. Their order should be confirmed and user should be directed to home page. 	Their order should be confirmed and user should be directed to home page.	PASS
TC047	Verify that user details should be displayed on payment page for registered customers.	<ol style="list-style-type: none"> Open browser Open url Enter username and password Click on login button 	Email Address = john@gmail.com Password=MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> Browser should be opened Ecommerce website should be opened user should be able to input username and password 	The checkout page NOT displayed with user details.	FAIL

		<p>5. Click on a product displayed on home page.</p> <p>6. Click on add to cart for the product</p> <p>7. Click on Checkout button.</p> <p>9.</p>		<ul style="list-style-type: none"> • Home page should be displayed after login and user name should be displayed on home page • The product page should be displayed. • The product should be added to cart. • The checkout page should be displayed with user details. • 		
TC048	Verify that user should be displayed payment options such as Credit Card, Debit Card, Net Banking etc.	<p>1. Open browser</p> <p>2. Open url</p> <p>3. Enter username and password</p> <p>4. Click on login button</p> <p>5. Click on a product displayed on home page.</p> <p>6. Click on add to cart for the product</p> <p>7. Click on Checkout button.</p>	Email Address = john@gmail.com Password=MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> • Browser should be opened • Ecommerce website should be opened • user should be able to input username and password • Home page should be displayed after login and user name should be displayed on home page • The product page should be displayed. • The product should be added to cart. • The checkout page should be displayed with payments options such as debit card, credit card, netbanking etc. 	The checkout page should be displayed with payments options such as debit card, credit card, netbanking etc.	PASS
TC049	Verify that if user is not registered then payment should be done as Guest user.	<p>1. Open browser</p> <p>2. Open url</p> <p>3. Enter username and password</p> <p>4. Click on login button</p> <p>5. Click on a product displayed on home page.</p> <p>6. Click on add to cart for the product</p> <p>7. Click on Checkout button</p> <p>8. Make payment.</p>	Email Address = john@gmail.com Password=MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> • Browser should be opened • Ecommerce website should be opened • user should be able to input username and password • Home page should be displayed after login and user name should be displayed on home page • The product page should be displayed. • The product should be added to cart. • The checkout page should be displayed with payments options. • The payment should be done as guest user. 	The payment should be done as guest user.	PASS
TC050	Verify that user should be provided with an option to save	<p>1. Open browser</p> <p>2. Open url</p> <p>3. Enter username and password</p>	Email Address = john@gmail.com Password=MyPassword Input=Cal-fx101	<ul style="list-style-type: none"> • Browser should be opened • Ecommerce website should be opened 	the user NOT able to save payment method for future orders.	FAIL

the payment method.	4. Click on login button 5. click on a product displayed on home page. 6. Click on add to cart for the product 7. Click on Checkout button. 8. Make payment.		<ul style="list-style-type: none"> • user should be able to input username and password • Home page should be displayed after login and user name should be displayed on home page • The product page should be displayed. • The product should be added to cart. • The checkout page should be displayed with payments options. • the user should be able to save payment method for future orders.
---------------------	--	--	--

Test Execution Screenshot



gcreddy.com/project/create_account.php

Chrome is being controlled by automated test software.

Quick Find
Use keywords to find the product you are looking for.
Advanced Search

Customer Details

Date of Birth: 10/10/2190 (e.g. 05/21/1970)

E-Mail Address: [REDACTED]

Company Details

Company Name: [REDACTED]

Your Address

Street Address: [REDACTED]
Suburb: [REDACTED]
Post Code: 110033
City: Delhi
State/Province: Delhi
Country: India

Your Contact Information

Telephone Number: 9988776655
Fax Number: [REDACTED]
Newsletter: [checkbox]

Your Password

Password: [REDACTED]
Password Confirmation: [REDACTED]

Continue

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Type here to search

gcreddy.com/project/checkout_confirmation.php

Chrome is being controlled by automated test software.

gcrShop

Top > Catalog > Checkout > Confirmation

Order Confirmation

Shipping Information

Delivery Address (Edit): John Aaromal xyz street Delhi, 110033 Delhi, India

Products (Edit): 1 x AAA..

Shopping Cart

1 x AAA..

Billing Information

Billing Address (Edit): John Aaromal xyz street Delhi, 110033 Delhi, India

Payment Method (Edit): Cash on Delivery

Sub-Total: 0
Flat Rate (Best Way): 0
Total: 0

Confirm Order

Delivery Information Payment Information Confirmation

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The screenshot displays a Windows desktop environment with a web browser window open to a shopping application. The browser has several tabs and windows visible.

Top Window (Advanced Search):

- Address Bar:** gcreddy.com/project/advanced_search.php
- Header:** GCR Shop, Not secure, Cart Contents, Checkout, My Account, Log Off
- Content:** "Chrome is being controlled by automated test software." Below it is the "gcrShop" logo and a navigation bar: Top > Catalog > Advanced Search.
- Left Sidebar:** Categories (Designer Wear 4, Designer Wear-> 3, Shoes 1, jeans), Manufacturers (Please Select), Quick Find (Search bar).
- Search Criteria Form:** Categories dropdown (All Categories, Include Subcategories checked), Manufacturers dropdown (All Manufacturers), Price From/To input fields.
- Footer:** Copyright © 2022 GCR Shop.

Bottom Window (Login):

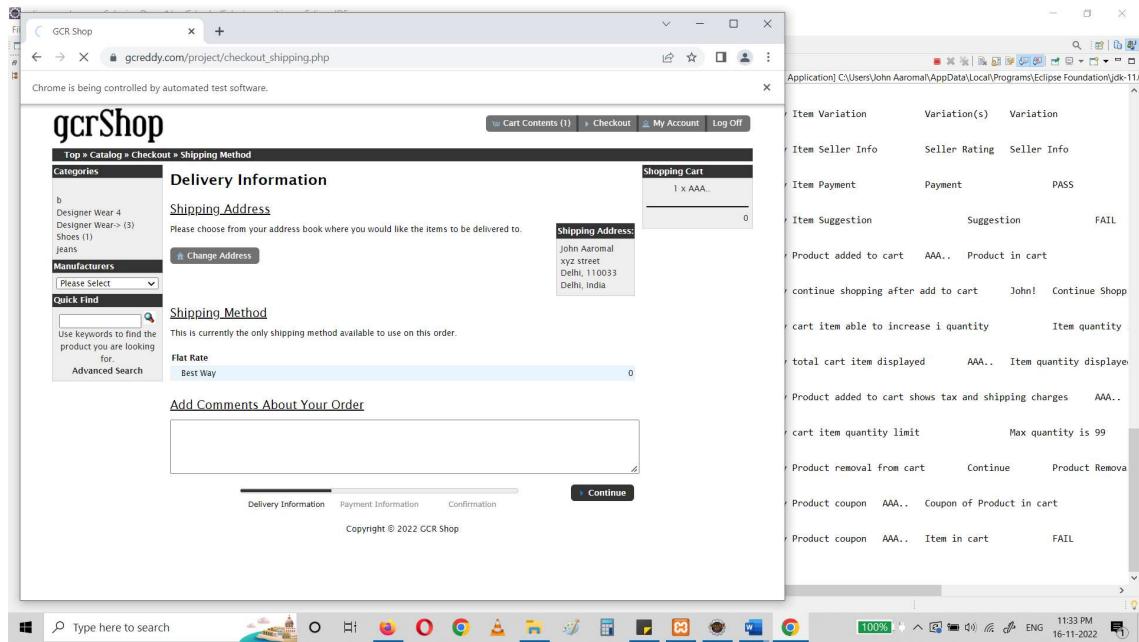
- Address Bar:** gcreddy.com/project/login.php
- Header:** GCR Shop, Not secure, Cart Contents, Checkout, My Account, Log Off
- Content:** "Chrome is being controlled by automated test software." Below it is the "gcrShop" logo and a navigation bar: Top > Catalog > Login.
- Left Sidebar:** Categories (Designer Wear 4, Designer Wear-> 3, Shoes 1, jeans), Manufacturers (Please Select), Quick Find (Search bar).
- Sign In Form:** Welcome, Please Sign In. It has two sections: Returning Customer (Email Address: john@gmail.com, Password: masked) and New Customer (Text: I am a new customer. By creating an account at GCR Shop you will be able to shop faster, be up to date on an orders status, and keep track of the orders you have previously made.).
- Footer:** Copyright © 2022 GCR Shop.

Taskbar (Bottom):

- Type here to search
- Pinned icons: File Explorer, OneDrive, Mail, Photos, OneNote, Word, Excel, Powerpoint, Edge, File Explorer, Task View, Taskbar settings, Smart Insert, Writable.
- System tray: Date (52:9:1444), Battery (100%), Network, Volume, ENG, 11:30 PM, 16-11-2022.

Background Application (Right):

- Application: C:\Users\John Aaroma\AppData\Local\Programs\Eclipse Foundation\jdk-11
- Table: A grid of test cases with columns: Test Case, Feature, Status, and Notes.



Test Result

File	Edit	Source	Refactor	Navigate	Search	Project	Run	Window	Help
Console X									
<terminated> Seleniumscript [Java Application] C:\Users\John Aaroma\AppData\Local\Programs\Eclipse Foundation\jdk-11.0.12.7-hotspot\bin\javaw.exe (16-Nov-2022, 9:07:04 pm - 9:10:28 pm) [pid: 25408]									
\$Starting ChromeDriver 106.0.5249.61 (51175355844955cd3e264779baf0dd38212a4d0-refs/branch-heads/5249@#569) on port 49896									
Only local connections are allowed.									
Please see https://chromedriver.chromium.org/security-considerations for suggestions on keeping ChromeDriver safe.									
ChromeDriver was started successfully.									
[1668613032.235][WARNING]: This version of ChromeDriver has not been tested with Chrome version 107.									
Nov 16, 2022 9:07:12 PM org.openqa.selenium.remote.ProtocolHandshake.createSession									
INFO: Detected upstream dialect: W3C									
Nov 16, 2022 9:07:12 PM org.openqa.selenium.devtools.CdpVersionFinder findNearestMatch									
WARNING: Unable to find an exact match for CDP version 107, so returning the closest version found: 106									
Nov 16, 2022 9:07:12 PM org.openqa.selenium.devtools.CdpVersionFinder findNearestMatch									
INFO: Found CDP implementation for version 107 of 106									
Testid	Test Obj	Test Status	Expected Status	Result					
TC001	Verify Launch App	GCR Shop	GCR Shop	PASS					
TC002	Verify Elements	Find create an account,login	Found create an account,login	PASS					
TC003	Verify Customer Reg	My Account Information	Your Account Has Been Created!	FAIL					
TC004	Verify LogIn	LogIn Successfully	LogIn Successfully	PASS					
TC005	Verify Shopping Cart	Your Shopping Cart is empty! Continue Your Shopping Cart is empty!		PASS					
TC006	Verify Checkout	Your Order Has Been Processed!	Your Order Has Been Processed!	PASS					
TC007	Verify Username displayed in Homepage	John!	John Aaroma!	FAIL					
TC008	Verify Features	Features Exists	Features Exists	PASS					
TC009	Verify Search	Features Exists	Features Exists	PASS					
TC010	Verify Alignment	Left Allignment	Correct Allignment	FAIL					

Console X				
<terminated> Seleniumscript [Java Application] C:\Users\John Aaromal\AppData\Local\Programs\Eclipse Foundation\jdk-11.0.12.7-hotspot\bin\javaw.exe (16-Nov-2022, 9:07:04 pm – 9:10:28 pm) [pid: 25408]				
TC011	Verify Element Clickable	Element Clickable	Element Clickable	PASS
TC012	Verify Redirection	Redirected	Redirected	PASS
TC013	Verify User Info	John!	John Aaromal	FAIL
TC014	Verify Categorization	John!	Category	FAIL
TC015	Verify Search Input	Products meeting the search criteria	Products meeting the search criteria	PASS
TC016	Verify Search	Products meeting the search criteria	Products meeting the search criteria	PASS
TC017	Verify Search Input	Products meeting the search criteria	Products meeting the search criteria	PASS
TC018	Verify Search Input	Specific Search Function Provided	Brand Search Function Provided	FAIL
TC019	Verify Search Input	Specific Search Function Provided	Filtering Search Function Provided	FAIL
TC020	Verify Search Input	Specific Search Function Provided	Sorting Search Function Provided	FAIL
TC021	Verify Search Input	Specific Search Function Provided	Total Search Provided	FAIL
TC022	Verify Navigation Button	Link Redirection	Navigation Button	FAIL
TC023	Verify Category Search	Search Different Categories	Search Designer Wear Category	PASS
TC024	Verify Item Image	Item Name	Item Image	FAIL
Console X				
<terminated> Seleniumscript [Java Application] C:\Users\John Aaromal\AppData\Local\Programs\Eclipse Foundation\jdk-11.0.12.7-hotspot\bin\javaw.exe (17-Nov-2022, 12:33:06 am – 12:36:56 am) [pid: 25924]				
TC025	Verify Item Price	100	Price	PASS
TC026	Verify Item Specification	HP	Specification	FAIL
TC027	Verify Item Shipping Info	Shipping Info	Shipping Info	PASS
TC028	Verify Stock	10	Stock	FAIL
TC029	Verify Item Rating	5	Rating	FAIL
TC030	Verify Item Variation	Variation(s)	Variation	FAIL
TC031	Verify Item Seller Info	Seller Rating	Seller Info	FAIL
TC032	Verify Item Payment	Payment		PASS
TC033	Verify Item Suggestion	Suggestion		FAIL
TC034	Verify Product added to cart	AAA..	Product in cart	PASS
TC035	Verify continue shopping after add to cart	John!	Continue Shopping	PASS
TC036	Verify cart item able to increase in quantity		Item quantity increased	PASS
TC037	Verify total cart item displayed	AAA..	Item quantity displayed	FAIL
TC038	Verify Product added to cart shows tax and shipping charges	AAA..	Product tax and shipping charges displayed	FAIL

<terminated> Seleniumscript [Java Application] C:\Users\John Aaroma\AppData\Local\Programs\Eclipse Foundation\jdk-11.0.12.7-hotspot\bin\javaw.exe (17-Nov-2022, 12:33:06 am – 12:36:56 am) [pid: 25924]				
TC039	Verify cart item quantity limit	Max quantity is 99	FAIL	
TC040	Verify Product removal from cart	Continue	Product Removal	PASS
TC041	Verify Product coupon AAA..	Coupon of Product in cart		FAIL
TC042	Verify Product coupon AAA..	Item in cart		FAIL
TC043	Verify Payment Option Cash on Delivery	Payment Option		PASS
TC044	Verify Delivery Details Billing Address	Delivery Details		PASS
TC045	Verify User get Details Billing Address	User Recieved Details		FAIL
TC046	Verify Homepage after checkout new products	Homepage after checkout		PASS
TC047	Verify User Detail on Payment Billing Information	Payment Details		PASS
TC048	Verify Payment Method Cash on Delivery	Payment Method		PASS
TC049	Verify Payment as Guest New Customer	Payment as Guest		FAIL
TC050	Verify Save Payment Method Cash on Delivery	Save Payment Method		PASS
Total Test	Total Test Pass	Total Test Fail		
50	26	24		
Total Test Time: 3 minute 48 seconds				

Code Snippet

```
2
3* import org.openqa.selenium.By;□
11
12 public class Seleniumscript {
13     public static WebDriver driver =null;
14
15
16* public static void main(String[] args) throws InterruptedException {
17
18     long startTime=System.currentTimeMillis();
19
20     TestCases[] arr;
21     arr = new TestCases[70];
22     TestCases Total = new TestCases();
23
24     //launch browser
25     System.setProperty("webdriver.chrome.driver","C:\\selenium webdriver\\chromedriver_win32\\chromedriver.exe");
26     driver = new ChromeDriver();
27     System.out.println("Testid \t Test Obj \t Test Status \t Expected Status \t Result\n");
28
29     //test 1
30
31     arr[0] = new TestCases();
32     arr[0].setData("TC001", "Verify Launch App","","","");
33
34     driver.get("https://gcreddy.com/project/");
35
36     // //Thread.sleep(2100);
37     String pageTitle = driver.getTitle();
38     arr[0].testStatus="GCR Shop";
39     arr[0].ExpectedStatus=pageTitle;
40     try {
41         Assert.assertEquals("GCR Shop", pageTitle);
42         arr[0].Result="PASS";
43         Total.TotalPass++;
44     }
45     catch(AssertionError e) {
46         arr[0].Result="FAIL";
47         Total.TotalFail++;
48     }
49
50     arr[0].display();
51
52
53     //test 3
54
55     arr[2] = new TestCases();
56     arr[2].setData("TC003", "Verify Customer Reg","","","");
57
58     driver.get("https://gcreddy.com/project/create_account.php");
59     driver.findElement(By.xpath("//*[@id='bodyContent']/form/div[2]/table/tbody/tr[1]/td[2]/input[1]")).click();
60     driver.findElement(By.name("firstname")).sendKeys("John");
61     driver.findElement(By.name("lastname")).sendKeys("Aaromal");
62     driver.findElement(By.id("dob")).sendKeys("10/10/2190");
63
64     driver.findElement(By.name("email_address")).sendKeys("john@gmail.com");
65     driver.findElement(By.name("street_address")).sendKeys("xyz street");
66     driver.findElement(By.name("postcode")).sendKeys("110033");
67     driver.findElement(By.name("city")).sendKeys("Delhi");
68     driver.findElement(By.name("state")).sendKeys("Delhi");
69     Select dropDown = new Select (driver.findElement(By.name("country")));
70     dropDown.selectByVisibleText("India");
71
72     driver.findElement(By.name("telephone")).sendKeys("9988776655");
73     driver.findElement(By.name("password")).sendKeys("MyPassword");
74     driver.findElement(By.name("confirmation")).sendKeys("MyPassword");
75     driver.findElement(By.id("tdb4")).click();
76
77     driver.findElement(By.name("password")).sendKeys("MyPassword");
78     driver.findElement(By.name("confirmation")).sendKeys("MyPassword");
79     driver.findElement(By.id("tdb4")).click();
80
81     //Thread.sleep(3000);
82
83     String message = driver.findElement(By.tagName("h1")).getText();
84     //System.out.println(message);
85
86     arr[2].testStatus=message;
87     arr[2].Expectedstatus="Your Account Has Been Created!";
88
89     try {
90         Assert.assertEquals(message, "Your Account Has Been Created!");
91         arr[2].Result="PASS";
92         Total.TotalPass++;
93     }
94     catch(AssertionError e){
95         arr[2].Result="FAIL";
96     }
```

N-Fold Inspection

Planning the overview

the critical modules of the website i.e., Checkout an search is focused on the inspection process.

Inspection 1:

The team 1 is assigned to inspect the Checkout module. All the functionality is inspection and details has been written down in the form of a report.

Inspection 2:

The team 2 is assigned to inspect the Search counselling module. All the functionality is inspection and details has been written down in the form of a report.

Collation:

Here all the teams show up their reports and make decisions based on the reports. Each team focuses on a unit module.

Rework and Follow-Up:

Based on the reports the search module and the checkout module require some rework. This was decides based on the reports that was collected in the collation. As per the rework schedule the following rework has been done and again the inspection has been continued to find the bugs and faults.

RESULT / CONCLUSION

In our testing project over E-Commerce website ‘gcrShop’ using Selenium, We have :

Total Testcases :- 50

Total Testcases Pass :- 26

Total Testcases Fail :- 24

This website consists various bugs which are needed to be rectified majorly in search module.