

# Test Strategy document

## **BEWAKOOF Shopping Web Application**

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## 1.SCOPE

The Shopping application is termed as selling and buying behaviour of products and services over the internet. This online shopping system provides a 24×7 service, that is customers can surf the website, place orders anytime they wish to. It is also referred to as the sales of different items on the marketplaces in which money transaction activity takes place.

### Functional Requirements:

- The main page consists of Logo of Application, Login/signup page, offers page, product page, profile page and helpline details under the bottom of Home page.
- The page consists of options such as product size, color, and type. There is a sorting feature to filter out products based on price, model, size. There is also the “Add to Cart” or “Go to cart” feature present in the category pages.
- The page Consists of the product title, description, product images, related products, Add to Cart feature, Product comparison, additional product information.
- The Page consist of list view, removing the product from the list, cash on delivery option, Select delivery option, card payment, pay now option.

### Non Functional Requirements:

Capturing the behavior when a large number of people are using the software at the same time. Most of the time it is experienced that the servers are busy or unavailable due to heavy load.

- Validates that the system meets the expected response time. Evaluates that the significant elements of the application meet the desired response time.
- Whether the Application easy to use.

## 2.OVERVIEW

Online Shopping is a lifestyle e-commerce web application, which retails various fashion and lifestyle products (Currently Men’s and Women’s wear). This project allows viewing various products available enables registered users to purchase desired products instantly using Card payment, Net banking and UPI processor (Instant Pay) and also can place order by using Cash on Delivery (Pay Later) option. This project provides an easy access to Administrators and Managers to view orders placed using Pay Later and Instant Pay options. The main purpose of this Shopping application is where product like clothes can be bought from the comfort of home through the Internet.

### 3.TEST APPROACH

- Test levels
- Test types
- Roles and responsibilities
- Environment requirements ( hardware and software requirements).

### 4.TEST LEVELS

During the testing process the testers tested application in various levels. Such as, Unit testing, Integration testing, system testing and user acceptance testing.

#### **Test Types:**

- **FUNCTIONAL TESTING:**

A Test is a set of preconditions, procedures (inputs or actions), and expected results used to determine whether a system works correctly. Test cases should have the following structure: a brief statement of purpose, description of precondition, actual test case inputs, expected outputs, description of expected postconditions, and execution history (date/person in charge/product version/pass or fail result).

- **USABILITY TESTING :**

Usability testing is defined as the evaluation of a product by testing it on potential users. To test how users will add multiple items in the cart. Is it easy for them to set the prices in their desired currency? Can they choose their preferred payment method without any hassle? if users can pick the payment methods they want, you can evaluate whether the website shows payment methods valid for the user's country.

- **INTERFACE TESTING :**

ensure that end-users or customer should not encounter any problem when using Application. to check its user-friendliness as well. To verify security requirements while communication propagates between the systems and check if a solution is capable to handle network failures between an application server and website.

- **COMPACTIBILITY TESTING :**

It helps avoid issues related to versions updates, navigation flows, screen size adaptation, broken tables or frames, etc. and the testing will be done in

- Testing on PC, on different browsers like Safari, Chrome, Firefox, IE.
- Testing on different mobile devices that have different platforms like iOS, Android or Windows.
- Testing on networks like 4G, 3G or wifi.
- Testing on multiple operating systems such as Mac, Windows, Linux.

- **PERFORMANCE TESTING :**

Performance Testing is that type of software testing that pinpoints on how a system running the system performs under a particular circumstance. Performance testing measures depending on the benchmarks and standards. Performance testing helps the developers to eliminate the bottlenecks. Performance of a mobile or a web application is basically its capability of performing all the functions which it is supposed to do flawlessly without causing any delay or complication. its primary work, such as loading pages, showing the products, bringing out proper search results for the viewers, and loading the pages on time as well.

## **5.ROLES AND RESPONSIBILITIES**

- Creating, enhancing, debugging, and running the test cases.
- Collating and monitoring the defect management process.
- Managing the changes and executing regression tests.
- Coming up with exact solutions for problems related to object identity and error handling.
- Interacting with customers/clients to solve the various issues they face and updating on the situation.
- Automating the design of a framework.
- Implementing it as per the structure of the project.

- Creating an automation test plan and getting approval.
- Identifying and selecting the automation test cases.
- Applying various designs and documenting the automation test strategy.
- Configuring Selenium Test Environment (STE) in order to set it up.
- Participating in Selenium Environment Setup with an Integrated Development Environment (IDE).

## **6. ENVIRONMENT REQUIREMENTS**

### **Software Environment:**

- Operating System- windows
- Java development toolkit.

### **Hardware Environment:**

- Processor: Dual core
- RAM: 2GB
- Hard disk: 512GB.

## **7. TESTING TOOLS**

### **Software Requirements:**

- Selenium Testing tool.
- JIRA

### **Hardware Requirements:**

- Ram -2gb.
- Operation system- windows, android.

## **8. INDUSTRY STANDARDS USED**

- **IEEE 1008-1987 - IEEE Standard for Software Unit Testing**

An integrated approach to systematic and documented unit testing is defined. It uses unit design and unit implementation information, in addition to unit requirements, to determine the completeness of the testing. The testing process described composed of a hierarchy of phases, activities, and tasks and defines a minimum set of tasks for each activity. The standard can be applied to the unit testing of any digital computer software or firmware and to the testing of both newly developed and modified units.

- **IEEE/ISO/IEC 29119-2-2013 - ISO/IEC/IEEE International Standard - Software and systems engineering —Software testing —Test processes**

The purpose of the ISO/IEC/IEEE 29119 series of software testing standards is to define an internationally-agreed set of standards for software testing that can be used by any organization when performing any form of software testing. ISO/IEC/IEEE 29119-2 comprises test process descriptions that define the software testing processes at the organizational level, test management level and dynamic test levels. It supports dynamic testing, functional and non-functional testing, manual and automated testing, and scripted and unscripted testing. The processes defined in ISO/IEC/IEEE 29119-2 can be used in conjunction with any software development lifecycle model. Since testing is a key approach to risk-mitigation in software development, ISO/IEC/IEEE 29119-2 follows a risk-based approach to testing. Risk-based testing is a common industry approach to strategizing and managing testing. Risk-based testing allows testing to be prioritized and focused on the most important features and functions.

- **IEEE/ISO/IEC 29119-3-2013 - ISO/IEC/IEEE International Standard - Software and systems engineering — Software testing —Test documentation**

The purpose of the ISO/IEC/IEEE 29119 series of software testing standards is to define an internationally-agreed set of standards for software testing that can be used by any organization when performing any form of software testing. ISO/IEC/IEEE 29119-3 includes templates and examples of test documentation. The templates are arranged within clauses reflecting the overall test process description structure in ISO/IEC/IEEE 29119-2, i.e. by the test process in which they are being produced. Annex A contains outlines of the contents of each document. Annex B contains mappings ISO/IEC/IEEE 29119-2. Annex C contains an overview of the examples. Annexes D to S contain examples of the application of the templates. Annex T provides mappings to existing standards. The Bibliography for this part of ISO/IEC/IEEE 29119 is at the end of the document. ISO/IEC/IEEE 29119-3 supports



dynamic testing, functional and non-functional testing, manual and automated testing, and scripted and unscripted testing.

## 9.TEST DELIVERABLES

- Test Scenario
- Test cases and data
- Requirement traceability matrix.
- Test summary report
- Test closure report

### 9.1 Test Scenarios For shopping Web application:

SN	Test scenario ID	Test Objective/Test scenarios
1	TS_bewakoof_001	Validating the "Personal Details" feature as a new user.
2	TS_bewakoof_002	Validate the "Username and Password" feature for the new user
3	TS_bewakoof_003	Validate already existing users username and password
4	TS_bewakoof_004	Checking for product page availability
5	TS_bewakoof_005	Checking the product page,that user can select the desired attribute of the product.
6	TS_bewakoof_006	Searching for the product by their names
7	TS_bewakoof_007	Check the product availability,product price and price sorting
8	TS_bewakoof_008	Selecting the product and adding product to the cart.
9	TS_bewakoof_009	Selecting the Payment option for buying the product
10	TS_bewakoof_010	After Payment transaction receipt will be received
11	TS_bewakoof_011	Check the modules are present while opening the browser

### 9.2 Test cases Data:

Test module	Test case Id with test case name
1.1 - Login	TS_Login_001- Validate the user name
	TS_Login_002- Validate the password
	TS_Login_003- Check with empty user name column
	TS_Login_004-Forgot password
	TS_Login_005-Verify & remember me after entering password
	TS_Login_006-Changing password after giving forget password
	TS_Login_07-User able to login after changing password
1.2 - Register	TS_Register_001 - Check whether it is accepting valid email address

	TS_Register_002 - Check whether it is a valid PW
	TS_Register_003 - Whether DOB is filled or not
	TS_Register_004 - Checking Check box for exclusive email update
	TS_Register_005 - Check whether member button is working or not
	TS_Register_006 - Check whether Password strength and conditions are visible
	TS_Register_007 - Check whether mandatory fields has star symbol
	TS_Register_008 - Check whether error shows while hitting submit without Email
	TS_Register_009 - Check whether error shows while hitting submit without Password
	TS_Register_010 - Check whether error shows while hitting submit without DOB
	TS_Register_011 - Check whether error shows when the Password doesn't fulfill the conditions
	TS_Register_012 - Check whether back to login works fine
2.1 Categeorie	TS_Cat_004- Select the products for men/women
	TS_Cat_006- Select the products for children
	TS_Cat_007- Select the product from the brands
2.2 Cart	TS_Cat_001- Adding the product to the cart
3.1 Range	TS_Ran_001- Selecting the products based on the size and price
	TS_Ran_002- Selected the products based on the medium price
	TS_Ran_003- Selected the Brands based on the size and price
	TS_Ran_004- Selected the Brands based on the High price
4.1 Options	TS_Opt_001- Check whether the UPI Available or not
	TS_Opt_002- Check whether the NetBanking is Available or not
	TS_Opt_003- Check whether the Credit/debit card is Available or not
	TS_Opt_004- Check whether the COD is Available or not
5.1 Status	TS_Status_001- Check whether the Payment is done successfully by NetBanking
	TS_Status_002- Check whether the Payment is done successfully by Credit/Debit card
	TS_Status_003- Check whether the Payment is done successfully by UPI

### 9.3 Testing Metrics:

Total number of test cases=37

Number of test cases passed=33

Number of test cases failed=03

Number of test cases rejected=01

Team member	Number of test cases assigned	Number testcases passed	Number of test cases failed	status
Joshna	8	8	0	Done
Nandhana	10	8	2	Not done
Jagadeesh	8	8	0	Done
Yogiramu	11	9	2	Not done

## 9.4 Requirement Traceability Matrix:

B	C	D	E	F	G
BRD- Section	FSD- Section	Test scenario ID	Test name	Test case ID	Status
User Connectivity	1.1 - Login	Ts_login_01	valid username	TC_existinguser	Passed
		Ts_login_02	invalid username	TC_existinguser	Failed
		Ts_login_03	valid password	TC_existinguser	Passed
		Ts_login_04	invalid password	TC_existinguser	Failed
		Ts_login_05	empty details	TC_existinguser	Failed
		Ts_login_06	forgot password-valid email	TC_existinguser	Passed
		Ts_login_07	forgot password-invalid email	TC_existinguser	Failed
	1.2 - Register	Ts_reg_01	new mail id which is not used before	Ts_newuser_01	Passed
		Ts_reg_02	email id which is already used before	Ts_newuser_02	Failed
		Ts_reg_03	firstname	Ts_newuser_03	Passed
		Ts_reg_04	lastname	Ts_newuser_04	Passed
		Ts_reg_05	date of birth	Ts_newuser_05	Passed
		Ts_reg_06	mobile number	Ts_newuser_06	Passed
		Ts_reg_07	password mandatory fields	Ts_newuser_07	Passed
		Ts_reg_08	sign up - valid details	Ts_newuser_08	Passed
		Ts_reg_09	signup -invalid details	Ts_newuser_09	Failed
Products Information	2.1 categories	Ts-proinf_01	showing product page	TC_Information	Passed
		Ts-proinf_02	showing profile page	TC_Information	Passed
		Ts-proinf_03	displaying gender categorie	TC_Information	Passed
		Ts-proinf_04	not showing gender categorie	TC_Information	Failed
		Ts-proinf_05	showing selected brand	TC_Information	Passed
		Ts-proinf_06	not showing brand	TC_Information	Failed
		Ts-proinf_07	showing selected fit	TC_Information	Passed
		Ts-proinf_08	not showing selected fit	TC_Information	Failed
		Ts-proinf_09	showing type of cloth material	TC_Information	Passed
		Ts-proinf_10	not showing the selected cloth material	TC_Information	Failed

B	C	D	E	F	G
	2.2 Cart	Ts_cart_01	item added to cart	Tc_cart info_01	Passed
		Ts_cart_02	item not added to cart	Tc_cart info_02	Failed
		Ts_cart_03	number of items selected	Tc_cart info_03	Passed
		Ts_cart_04	wrong number of items selected	Tc_cart info_04	Failed
3.Range of product	3.1 Range	Ts_range_01	showing selected price range	Tc_range info_01	Passed
		Ts_range_02	not showing the selected price range	Tc_range info_02	Failed
		Ts_range_03	showing high to low price	Tc_range info_03	Passed
		Ts_range_04	not showing high to low price	Tc_range info_04	Failed
		Ts_range_05	showing low to high price	Tc_range info_05	Passed
		Ts_range_06	not showing low to high price	Tc_range info_06	Failed
		Ts_range_07	showing popular item	Tc_range info_07	Passed
		Ts_range_08	not showing popular items	Tc_range info_08	Failed
4.Buying options	4.1 Options	Ts_Buy_01	payment through Upi-correct upi id	Tc_buy meth_01	Passed
		Ts_Buy_02	payment through invalid upi id	Tc_buy meth_02	Failed
		Ts_Buy_03	payment through card with valid card details	Tc_buy meth_03	Passed
		Ts_Buy_04	payment through card with invalid card details	Tc_buy meth_04	Failed
		Ts_Buy_05	payment through netbanking with valid credentials	Tc_buy meth_05	Passed
		Ts_Buy_06	payment through netbanking with invalid credentials	Tc_buy meth_06	Failed
		Ts_Buy_07	COD with valid address	Tc_buy meth_07	Passed
		Ts_Buy_08	COD with invalid address	Tc_buy meth_08	Failed

		Ts_range_06	not showing low to high price	Tc_range info_06	Failed
		Ts_range_07	showing popular item	Tc_range info_07	Passed
		Ts_range_08	not showing popular items	Tc_range info_08	Failed
4.Buying options	4.1 Options	Ts_Buy_01	payment through Upi-correct upi id	Tc_buy meth_01	Passed
		Ts_Buy_02	payment through invalid upi id	Tc_buy meth_02	Failed
		Ts_Buy_03	payment through card with valid card details	Tc_buy meth_03	Passed
		Ts_Buy_04	payment through card with invalid card details	Tc_buy meth_04	Failed
		Ts_Buy_05	payment through netbanking with valid credentials	Tc_buy meth_05	Passed
		Ts_Buy_06	payment through netbanking with invalid credentials	Tc_buy meth_06	Failed
		Ts_Buy_07	COD with valid address	Tc_buy meth_07	Passed
		Ts_Buy_08	COD with invalid address	Tc_buy meth_08	Failed
5.Payment	5.1 Status	Ts-status_01	order confirmed	Tc_stat_01	Passed
		Ts-status_02	money debited but order not confirmed	Tc_stat_02	Failed
		Ts-status_03	money not debited and order not confirmed	Tc_stat_03	Passed

## 10.RISK AND MITIGATION

- Broken Access control
- Payment security
- Use secure passwords.

## 11.REPORTING TOOL

JIRA is the reporting tool for the Project.

## 12.TEST SUMMARY

A Test Strategy document is created for sshopping web application as per the content. It needs to be reviewing for sign-off by all entities involved in project management, business team, development team, and system administration Team.

## 13.APPROVALS

Approved by role	Approved by Name
Project Coordinator	Anu meha