



STP Document



Automation Test Developer

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Planned Schedule

| A step in the project process | Start date | End date |
|-------------------------------|------------|------------|
| Preparation of STP document | 18.03.2024 | 18.03.2024 |
| Preparation of STD document | 19.03.2024 | 19.03.2024 |
| Round of tests #1 | 20.03.2024 | 20.03.2024 |
| Round of tests #2 | 22.03.2024 | 22.03.2024 |
| Round of tests #3 | 23.03.2024 | 23.03.2024 |



Purpose Of This Document

The purpose of the document is to define a framework program for testing This framework plan will include all relevant topics for planning and performing the tests, such as the test topics and types of tests, the schedule, and the planned work method for testing the system.

The document will also be used for writing a detailed test plan (STD) in which the various tests will be detailed step by step.

After that, the tests will be carried out according to the instructions in this document.

Description Of Terminal X System

This system, organizes products into numerous categories to facilitate easy browsing and shopping. These categories cover a broad range of items, including but not limited to clothing for men, women, and children, shoes, accessories, beauty products, home essentials, and sports equipment. Products are further classified under sub-categories such as type of clothing (e.g., dresses, shirts, pants), type of accessories (e.g., bags, jewelry, watches), and specific needs (e.g., sports, office wear, evening wear, sustainable fashion).



Key Features and Functions:

Key features of the system include:

- **Category-based Navigation:** Users can navigate through different product categories like clothing, shoes, accessories, sports, and beauty. Each main category is broken down into subcategories for refined searching.
- **Filtering Options:** Within each category or subcategory, users can apply filters to narrow down the search results based on size, color, price range, and other product-specific attributes.
- **Product Listings:** Products are displayed with images, prices, and brief descriptions. Users can click on products to get more detailed information, including available sizes, color options, and additional product details.
- **User Account Features:** Shoppers can create accounts to manage their orders, track shipping, and access exclusive offers.
- **Promotions and Offers:** The website offer promotions such as discounts for new subscribers to the newsletter.
- **Ordering and Shipping Information:** Details like ordering deadlines for next-day delivery are highlighted to improve customer service and satisfaction.
- **Brand Selection:** the system lists various other brands, providing a wide selection for users to choose from.

Stakeholders:

1. Internal Stakeholders:

- **Management Team:** Individuals responsible for strategic decisions and overall management of the platform.
- **Employees:** Includes all levels of staff, from customer service representatives to warehouse workers, involved in the day-to-day operations.
- **IT and Web Development Team:** Responsible for website maintenance, updates, and ensuring cybersecurity measures.
- **Marketing and Sales Team:** Tasked with promoting the website, managing campaigns, and driving sales.
- **Finance Team:** Manages financial aspects, including budgeting, pricing strategies, and financial reporting.



2. External Stakeholders:

- **Customers:** The end-users of the website, whose needs and feedback are crucial for the platform's success.
- **Suppliers and Vendors:** Including Nike and other brands, responsible for supplying the products sold on the platform.
- **Delivery and Logistics Partners:** Companies that handle the delivery and return of products, crucial for customer satisfaction.
- **Payment Processors:** Entities that manage transaction processing, ensuring secure and efficient payment methods.
- **Marketing and Advertising Partners:** Agencies or platforms that assist in promoting the website to potential customers.

3. Regulatory and Compliance Entities:

- **Governmental Regulatory Bodies:** Ensure that the business complies with local, national, and international laws and regulations.
- **Data Protection Agencies:** Oversee the platform's adherence to data protection and privacy laws.



Terms and Concepts

- 1. GUI (Graphical User Interface):** The design of user interfaces based on specified requirements.
- 2. Functional Testing:** Verification that fundamental system functions operate correctly.
- 3. Conversion Testing:** Evaluation conducted during the transition from an old product to a new one.
- 4. Performance Testing:** Includes load testing, evaluating system responsiveness, and stress testing.
- 5. Security Testing:** Focuses on information security and safeguarding the system.
- 6. Authorization Testing:** Validation ensuring users with defined permissions can execute authorized actions.
- 7. Maintenance Testing:** Examination of the functionality of a modified system following changes, updates, or alterations in the working environment.
- 8. STP (System Test Plan):** A comprehensive project planning document encompassing strategy, schedule, and topic tree.
- 9. STD (System Test Design):** Detailed documentation outlining the testing plan.
- 10. STR (System Test Results):** A concise document summarizing test results after three cycles.
- 11. Usability Testing:** Assessment of the system's user-friendliness, measuring its learnability, comprehensibility, and ease of operation.
- 12. Integration Testing:** Inspection of the integration among diverse software components and subsystems in relation to external systems.



Testing Plan

The testing team will communicate the requirements to the development team based on the planned tests.

The development team will work according to these requirements to maximize efficiency.

Hardware Needs:

1. Computers:

- High-performance desktops or laptops to run test scripts and perform manual testing.

2. Network Equipment:

- Routers and switches to simulate different network conditions for testing YouTube's performance under various network scenarios.

3. Virtual Machines:

- Set up virtual machines for testing on different operating systems and browser combinations.

4. Storage Devices:

- Sufficient storage space to store test data, logs, and video files generated during testing.



Software Needed:

1. Operating Systems:

- Install and configure various operating systems for testing, including Windows, macOS, and Linux distributions.

2. Browsers:

- Latest versions of popular browsers (Google Chrome, Microsoft Edge, Safari, Firefox) for cross-browser compatibility testing.

3. Mobile Emulators/Simulators:

- Emulators or simulators to test YouTube's mobile app on different devices and screen sizes.

4. Performance Testing Tools:

- Tools like Apache JMeter, LoadRunner, or Gatling for performance and load testing to simulate high user traffic.

5. Automation Testing Tools:

- Selenium, Appium, or similar tools for automating functional tests across web and mobile platforms.

6. Database Management System:

- Database systems (MySQL, PostgreSQL) for testing YouTube's data handling and retrieval functionality.

7. Collaboration Tools:

- Communication and collaboration tools (e.g., Slack, Microsoft Teams) for effective communication among the testing team.

8. Test Management Tools:

- Test case management tools (e.g., TestRail, Jira) to organize, execute, and track test cases.



This document will be approved by the testing team leader and the project manager.

Following approval, the senior tester will build the STD document based on it.

The STD document will then undergo approval by the testing team leader.

After approval of the STD document, three rounds of testing will be conducted.

At the end of these rounds, the STR document will be prepared by the senior tester, undergo approval by the testing team leader, and serve as the final documentation.

Before the start of testing rounds, **functional tests** will be performed, including:

- 1) **Unit Testing:** To test individual units or components of a software application.
- 2) **Testing:** To verify that the most important functionalities of a software application work correctly.
- 3) **Integration Testing:** To verify the interactions and interfaces between different components or systems within the application.
- 4) **Regression Testing:** To ensure that new code or changes do not affect the existing functionality of the software.
- 5) **API Testing:** To validate the functionality of an API by testing its endpoints and request-response mechanisms.
- 6) **UI Testing:** To validate that the user interface elements and interactions function correctly according to the design.
- 7) **End-to-End Testing:** To evaluate the entire software system's functionality from start to finish, simulating real user scenarios and interactions.

Afterwards, the following **non-functional tests** will be conducted including:

- 1) **Performance Tests (Load + Stress + Volume):** they assess how well a system performs under various conditions, including heavy loads, stressful situations, and large data volumes.
- 2) **Security Tests:** Security tests aim to identify vulnerabilities and weaknesses in a system to ensure protection against unauthorized access.
- 3) **Upgrade and Installation Test:** Upgrade and installation tests verify the smooth installation of software upgrades and updates, ensuring that the system remains stable and functional.
- 4) **Recovery Tests:** they assess how well a system can recover from failures including data loss or system crashes.
- 5) **Localization and Globalization Testing:** Localization testing verifies that a software application adapts to specific regional or cultural requirements, while globalization testing ensures its compatibility with diverse international settings.



- 6) **Usability Testing:** evaluates the user friendliness and overall user experience of a software application to ensure it meets user expectations.
- 7) **Compatibility Testing:** Compatibility testing ensures that a software application works seamlessly across different devices, browsers, operating systems.



Starting and Existing Criteria

- **Criteria for starting the tests:**

- 100% of the planned sanity tests were carried out and passed successfully.
- 100% of planned functional and non-functional test cases have been created and reviewed.
- A traceability matrix is established, linking each test case to specific requirements.
- The testing environment, including necessary configurations, data, and tools, is prepared, and verified.
- Sufficient and accurate test data for both positive and negative scenarios is available.
- The test plan, detailing the testing approach, objectives, and schedules, has been reviewed and approved.

- **Completion/Release Criteria:**

- 100% of planned functional and non-functional tests have been executed, and results have been documented.
- 75% of test cases passed successfully.
- All critical bugs have been fixed at this point.
- The remaining bugs are at low severity levels, with no high-severity issues affecting functionality.



Traceability Table

| Business Requirement | Test Case ID | Functional Requirement | Test Case ID |
|----------------------|--------------|--|--------------|
| Home Page | 1 | Login functionality | 1.a |
| | | Logout | 1.b |
| | | 'Follow Us' navigation links | 1.c |
| Product Interaction | 2 | Add item to shopping cart | 2.c.i |
| | | Update item quantity | 2.c.ii |
| | | Remove item | 2.c.iii |
| | 3 | search functionality | 3.a |
| | | sorting functionality | 3.b |
| User Interface | 2 | responsiveness of the website on different devices | 2.a.i |
| | | color schemes meet accessibility standards | 2.a.ii |



Test Tree

1. API Tests

a. Cart Functionality

- I. Validate that items can be successfully added to the cart via API.
- II. Verify cart updates (e.g., item quantity changes) are processed correctly.
- III. Check that items can be removed from the cart without issues.

2. UI Tests

a. User Interface and Navigation

- I. Test the responsiveness and usability of the website on different devices and screen sizes.
- II. Ensure that color schemes meet accessibility standards.
- III. Verify that the 'Follow Us' navigation links lead to the correct social media platforms.

b. User Account and Authentication

- I. Validate login functionality with correct and incorrect credentials.
- II. Ensure that the user can successfully log out.
- III. Test the account creation process for new users.

c. Product Interaction

- I. Verify that items can be added to the shopping cart from the UI.
- II. Check the functionality of updating item quantities within the cart.
- III. Ensure items can be removed from the cart.
- IV. Test the sorting functionality by price in product listings.
- V. Validate search functionality with various keywords and filters.
- VI. Verify that added products appear correctly in the cart.
- VII. Check that products can be successfully added to and removed from the wishlist.

3. Integration Tests

a. API and UI Integration

- i. Verify that changes made through the API are reflected correctly in the UI.
- ii. Test end-to-end workflows combining API and UI actions



Hazard Table

| Responsible | Description | Action | Hazard Description | Risk Level | Damage | Chance | Hazard | # |
|-------------|---|-------------------------------------|---|-----------------------------|--------|---------------------------------------|---------------------------|---|
| | Description of prevention method | Enclose Monitoring Acceptance | What will happen in case of the hazard | Chance Multiplied by Damage | 1-10 | 1 = ידוע ועומד להתממש = 0.5 50% | | |
| System | NA | Monitoring | Unable to connect as a user | 5 | 10 | 0.5 | Bad Internet Connectivity | 1 |
| | Finding a tester for the project length | Enclose | Bad testing and coverage | 1.6 | 8 | 0.2 | New Testers | 2 |
| System | | Monitoring | Unable to login and retrieve info from the DB | 7 | 7 | 0.5 | Server Crash | 3 |
| | Postponing / finding replacement | Enclose | Vacations | 7 | 7 | 1.0 | Vacations | 4 |
| System | Adding servers | Enclose | System Crash | 5 | 10 | 0.5 | Weak Server | 5 |

| | | | | | | | | |
|---------|--|------------|--|-----|----|-----|--|-----------|
| HR | Hiring a stable worker | Monitoring | Team Morale | 5 | 10 | 0.5 | Employee quitting | 6 |
| QA Lead | Hiring Experienced Testers | Enclose | Failure to meet the schedule | 1 | 10 | 0.1 | Inexperienced Testers | 7 |
| CEO | More flexible customer | Monitoring | No income for the company | 3 | 10 | 0.3 | Contract Termination | 8 |
| CEO | QA Lead bad Management | Enclose | Unsatisfied Customer | 10 | 10 | 1 | Failure to meet the schedule | 9 |
| CEO | An appointment must be made with the customer and it should be noted to him that it will not be possible to make changes after the system is established | Monitoring | Failure to be prepared for changes by the customer will not ensure a professional, accurate and correct inspection | 3.5 | 7 | 0.5 | Customer requirements document changes frequently during the project | 10 |