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SQA Manual Testing Training

Session Agenda

“Purpose of this training is to make you people aware of what to do as a SQA and most importantly get hands-on experience of software Quality Assurance which will help to excel your SQA skills to grow you in your career”

This Document Contains the Topics that you folks will cover in your training session. In Every Session, a 1 to 1:30 hrs demo will be given by the trainer. The trainer will deliver the lecture and ask you any question from your previous session and every folk Assignment will also be discussed in the next day's session. You are advised to follow and learn the mentioned topics properly You will be Evaluated According to your performance in sessions.

Your Responsibility

- 1- Attend sessions on time on a daily basis
- 2- Read the Content and Clear your concepts Properly
- 3- Do your Assignments Properly
- 4- In case of any Query, you should make the checklist and ask your questions in the next session to your 'Trainer'
- 5- Don't try to copy others' work.

What is Quality Assurance / Quality Control?

Recommended Article:

Quality Assurance vs Quality Control – Difference Between Them

QA primarily focuses on the processes and procedures that improve quality, including training, documentation, monitoring and audits. QC focuses on the product to find defects that remain after development.

What is Software Testing?

Software Testing is a method to check whether the actual software product matches expected requirements and to ensure that the software product is Defect free. It involves the execution of software/system components using manual or automated tools to evaluate one or more properties of interest. The purpose of software testing is to identify errors, gaps, or missing requirements in contrast to actual requirements.

Recommended Article:

<https://www.guru99.com/software-testing-introduction-importance.html>

Difference between Software Testing Life Cycle (STLC) and Development Life Cycle (SDLC)

Software

Recommended Article about Difference Between SDLC/ STLC:

<https://www.guru99.com/sdlc-vs-stlc.html>

Recommended Article about STLC:

<https://www.guru99.com/software-testing-life-cycle.html>



Day-1 Assessment	Read articles, watch videos and clear your concepts on all the Mentioned Terms.	Duration: 6 hrs.
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Software Testing Techniques and their types

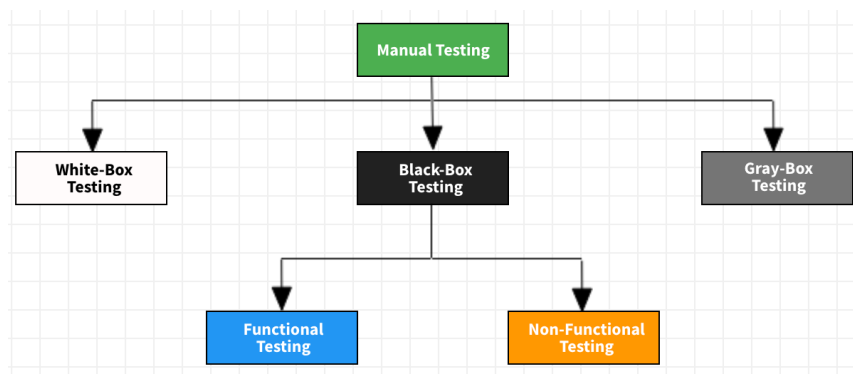
Recommended Articles:

<https://www.softwaretestinghelp.com/types-of-software-testing/>

<https://www.guru99.com/types-of-software-testing.html>

Testing Techniques

- 1- Black-Box Testing
- 2- White Box Testing
- 3- Gray Box testing



Software Testing Types

● Functional Testing

- a. Unit Testing
- b. Integration Testing
- c. System Testing
- d. UAT (User Acceptance Testing)
- e. Sanity Testing
- f. Smoke Testing
- g. Regression Testing
- h. Security Testing

● Non-Functional Testing

- a. Performance Testing
 - Load Testing
 - Stress Testing
 - Volume Testing
- b. Compatibility Testing

Other Testing Types

- 1- Exploratory Testing
- 2- Ad-hoc Testing
- 3- End to End Testing (E2E)
- 4- GUI Testing (UI/UX)
- 5- Retesting



Day-2 Assessment	Read articles, watch videos and clear your concepts on all the Mentioned Terms.	Duration: 6 hrs.
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What is a Bug?

Read [this](#) Document Carefully.

What are Bug reporting Tools?

- XLS
- Trello
- Asana
- Jira
- Open Project

**Day-3
Assessment**

First of All, you need to clear your concept on Bug and its related items. A Website will be Provided For Testing. You will perform testing and Report bugs according to the given format.

Duration:
6 hrs.

What is Mobile Device Testing?

Mobile app testing: is the process of running tests against a mobile application to make sure that its functionality and usability meet the requirements and the application is ready for launch. Mobile app testing includes general types of testing (functional, performance, usability, security, load) as well as mobile-specific ones (interruption, memory leakage, location, certification, installation, etc.)

Recommended Articles:

<https://www.pickfu.com/blog/mobile-app-testing-checklist/>

<https://w3softech.com/blog/difference-between-ios-and-android-testing/>

What is Website Testing?

Recommended Articles:

<https://www.guru99.com/web-application-testing.html>

<https://www.nba.com/>



Day-4 Assessment	Read Articles Carefully and Clear your concepts. Perform Functional Testing	Duration: 6 hrs.
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What is Responsiveness Testing?

It's Testing carried out to make sure that your website is working appropriately on all types of devices. Currently, all online businesses want to make sure that they are accessible anytime, anywhere. So one has to make sure that their website is adaptable and has ease of access on any device (Mobile, tablets, etc) as it is in desktop view. Checking that our website satisfies all functionality and UI for all resolution and environment is responsive testing.

Recommended Articles:

<https://www.softwaretestinghelp.com/responsive-web-design-testing-guide/>

<https://wishdesk.com/blog/how-test-responsiveness-website>

Sample website for Responsiveness Testing

<https://hack-yourself-first.com/>

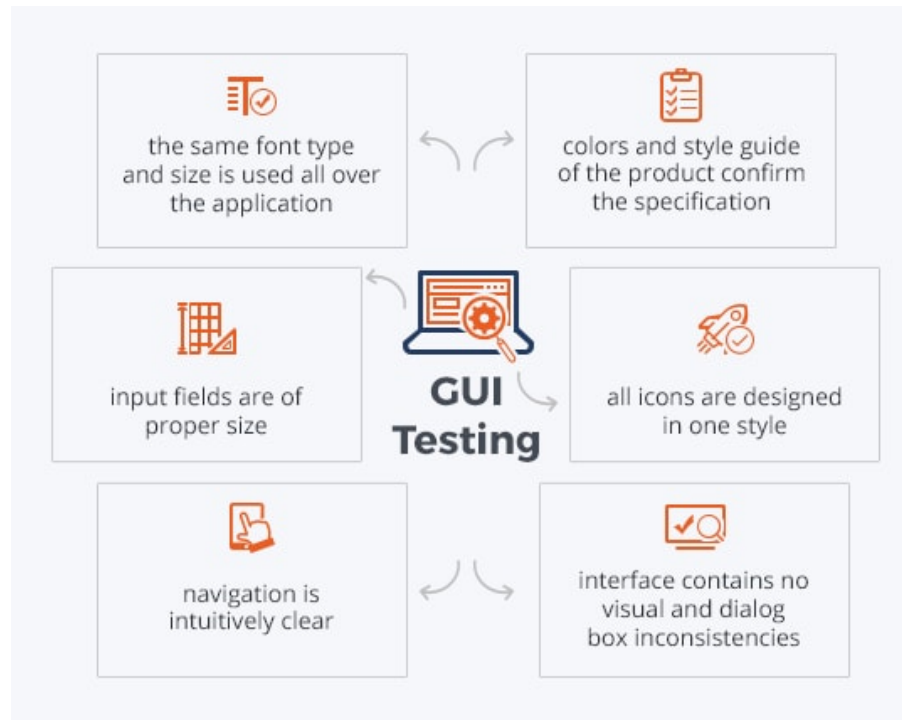
Pixel Perfection / GUI Testing

The objective of this GUI Testing is to validate the GUI as per the business requirement. The expected GUI of the application is mentioned in the Detailed Design Document and GUI mockup screens. GUI Testing includes the size of the buttons and input fields present on the screen, alignment of all text, tables, and content in the tables. It also validates the menu of the application, after selecting different menu and menu items, it validates that the page does not fluctuate and the alignment remains the same after hovering the mouse on the menu or sub-menu.

Recommended Articles:

<https://www.guru99.com/gui-testing.html>

<https://productcoalition.com/front-end-testing-how-to-test-your-website-layout-a20e2fb12937>



Day-5 Assessment	Read Articles Carefully and Clear your concepts. You will Test the Responsiveness of a Random Website.	Duration: 8 hrs.
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What are Test Scenarios and Test Cases?

Reference Link:

<https://www.guru99.com/test-case-vs-test-scenario.html>

<https://www.guru99.com/positive-and-negative-testing.html>

- Positive Test Cases
- Negative Test Cases
- **Test Cases Design Techniques**
 - Equivalence Partitioning
 - Boundary Value Analysis
 - Error Guessing
 - Table Decision making
 - State Transition
- Test Case Template Discussion
- Write Test Cases in the given Test Cases Template.

Requirement Gathering and Analysis

1. SRS Document Analysis
2. No SRS, Mockups are Available. Now, Gather Requirement From PM/Lead by discussion.
3. No Requirement Document

Difference between SRS, BRD, FSD

Reference Link: [SRS, BRD, FSD](#)



<p>Day-6 Assessment</p>	<p>Read articles, watch videos (if linked with article) and clear your concepts on Test Scenarios, Test cases, Test cases techniques. An SRS document will be provided in which you should analyze the requirement for Test Case Writing purposes. During the Document Analysis, you should keep focusing on gaps in requirements and report them.</p>	<p>Duration: 6 hrs.</p>
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What are Use Cases?

A use case is a tool for defining the required user interaction. If you are trying to create a new application or make changes to an existing application, several discussions are made. One of the critical discussions you have to make is how you will represent the requirement for the software solution.

Resources:

<https://www.softwaretestinghelp.com/use-case-testing/>

What is the 'Use Case' in Testing?

A **Use Case in Testing** is a brief description of a particular use of the software application by an actor or user. Use cases are made on the basis of user actions and the response of the software application to those user actions. It is widely used in developing test cases at the system or acceptable level.

Resources:

<https://www.guru99.com/use-case-testing.html>



Day-7 Assessment	Clear your Concepts about use cases. A Use Cases Sample will be given to you and you will have to map them into Test Cases Properly	Duration: 6 hrs.
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How to Check Error Using the Browser Console?

Recommended Article:

<https://developer.chrome.com/docs/devtools/overview/>

<https://infinum.com/handbook/books/qa/tools/using-chrome-dev-tools>

What is HTTP?

https://www.youtube.com/watch?v=wW2A5SZ3GkI&ab_channel=FollowAndrew

What is an HTTP Status Code?

An HTTP status code is **a server response to a browser's request**. When you visit a website, your browser sends a request to the site's server, and the server then responds to the browser's request with a three-digit code: the HTTP status code.

Https Status Codes:

<https://www.w3.org/Protocols/rfc2616/rfc2616-sec10.html>

<https://httpstatuses.com/>



Day-8 Assessment

We will cover some main topics. You will perform Testing of the Website using the console.

Duration:
6 hrs.

SSL & Security Vulnerability Testing

Recommended Articles:

<https://www.proxyclick.com/blog/ssl-certificate-5-tools-for-testing-vulnerability>

https://www.youtube.com/watch?v=hExRDVZHhig&ab_channel=PowerCertAnimatedVideos

Additional Article:

<https://www.softwaretestinghelp.com/database-security-testing/>

<https://docs.google.com/document/d/1iFaHEA7VIdTd3jiqpr7diLffw-GeFHZo/edit>

Recommended Tool:

- OWASP ZAP
- <https://www.zaproxy.org/docs/>



Day-9 Assessment	Read Article Carefully. Perform SSL & Security Vulnerability testing on a given website generate a report and Analyze bugs from the report.	Duration: 6 hrs.
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SQL Queries & DB GUI Tool For Database Testing (Day-1)

Recommended Articles:

<https://mundrisoft.com/tech-bytes/why-database-testing-is-required/>

<https://bobcares.com/blog/importance-of-database-testing/>

<https://www.oodlestechnologies.com/blogs/importance-and-need-for-database-testing/>

For Practical Sessions, watch the tutorials

- https://www.youtube.com/watch?v=wifRYaPiiM0&list=PLUDwpEzHYYLt0aRs7gvyEEviMp_CoTO3q&ab_channel=SDET-AutomationTechie



Day-10 Assessment	<p>Select any one of the Database Interface (Postgres, MSSQL, MySQL)</p> <p>CREATE New Database (Valid names only)</p> <p>CREATE any two tables in the same newly created Database (Valid names only)</p> <p>INSERT data into the newly created tables (at least 3-5 entries/rows per table)</p> <p>SELECT all rows of the data but in Descending order only</p> <p>UPDATE any column of any Row.</p> <p>DELETE one row of any one of the tables.</p> <p>DELETE all of the entries of the second table.</p> <p>Note: All of the preceding statements should be converted into SQL queries. All queries should function properly, and proper syntax should be used.</p>	Duration: 6 hrs.
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SQL Queries & DB Tools For Database Testing (Day-2)

For Practical Sessions, watch the tutorials

https://www.youtube.com/watch?v=eMIxuk0nOkU&ab_channel=Simplilearn

What is PostgreSQL?

Recommended Articles:

<https://www.postgresqltutorial.com/what-is-postgresql/>

<https://www.guru99.com/introduction-postgresql.html>



Day-11 Assessment	<p>Select any one of the Database Interface (Postgres, MSSQL, MySQL)</p> <p>CREATE New Database (Valid names only)</p> <p>CREATE any two tables in the same newly created Database (Valid names only)</p> <p>INSERT data into the newly created tables (at least 3-5 entries/rows per table)</p> <p>DELETE all of the entries of any table.</p> <p>Rollback the result</p> <p>DELETE any one row from a table</p> <p>Commit your changes</p> <p>Note: All of the preceding statements should be converted into SQL queries. All queries should function properly, and proper syntax should be used.</p>	Duration: 6 hrs.
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<p>Day-12 Assessment</p>	<p>CREATE a table for User Information CustomerID (Mandatory) CustomerName (Mandatory) Phone Number (Mandatory) Gender (Only two Options M and F) Location/Address (Mandatory) Description (Non-mandatory)</p> <p>Note: You must CREATE a table with appropriate data types and sizes for the columns.</p>	<p>Duration: 6 hrs.</p>
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What is API Testing? API Testing with Postman

What are APIs?

https://www.youtube.com/watch?v=OVvTv9Hy91Q&ab_channel=SimplyExplained

Recommended Articles:

<https://assertible.com/blog/7-http-methods-every-web-developer-should-know-and-how-to-test-them>

<https://www.techopedia.com/definition/27178/http-header>



Day-12 Assessment	Read Articles and clear your concepts	Duration: 6 hrs.
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What is API Testing? API Testing with Postman**1st**

https://www.youtube.com/watch?v=VywxIQ2ZXw4&ab_channel=freeCodeCamp.org
<https://github.com/vdespa/introduction-to-postman-course>

2nd

https://www.youtube.com/watch?v=95NBave0W_k&list=PLUDwpEzHYYLt3kLIHDLVjdnmJw7BDvVdE&ab_channel=SDET-AutomationTechie



Day-13 Assessment	Video Lectures	Duration: 6 hrs.
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What is Page Speed and Why is this Important?

Page speed is defined as the length of time it takes to display all the content on a specific page or the length of time it takes for a browser to receive a web server's first byte (or, to put it in less technical terms, page speed is how long it takes for the browser to receive the first batch of information from the server).

Recommended Articles:

<https://www.seoclarity.net/resources/knowledgebase/why-page-speed-matters-16167/>

<https://moz.com/learn/seo/page-speed>

Recommended Page Speed Testing Tools:

<https://developers.google.com/speed/pagespeed/insights/>

<https://gtmetrix.com/>

<https://tools.pingdom.com/>

Lighthouse

Some Additional Work

What is the Version Number?

The browser version is the numeric version of each program

- Os Version
 - <https://youtu.be/fkGCLIQx1MI>
- Device Version
- Browser Version
- Impact Analysis
- **Clearing Cache**
 - <https://askleo.com/browser-cache/>
 - <https://learn.g2.com/what-is-cached-data>
- **Cookies**
 - <https://www.kaspersky.com/resource-center/definitions/cookies>
 - <https://policies.google.com/technologies/cookies?hl=en-US>
- **Incognito Mode**
 - <https://www.avast.com/c-what-is-incognito-mode>
 - <https://www.computerworld.com/article/3356840/how-to-go-incognito-in-chrome-firefox-safari-and-edge.html>

Critical Functionalities of Software

- Payment gateway / Billing
 - <https://www.softwaretestinghelp.com/payment-gateway-testing-tutorial/>
- AuthN & AuthZ
 - <https://www.cloudflare.com/en-gb/learning/access-management/authn-vs-authz/>



Day-14 Assessment		Duration: 6 hrs.
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