Software: -

#. A Software is a collection of Computer Programs that helps us to perform a task.

Types of Software: -

1. System Software

Example:- Operating System (OS) , Compiler etc...

2. Application Software

Example:- Web Application, Mobile Application, Desktop Application etc...

Browser:-

1. Google Chrome

2. Firefox

3. Microsoft Edge

4. Opera

5. Safari (For Mac Users)

Operating System:-

1. Windows

2. Mac

3. Linux

Programming Languages:-

1. Java

2. Python

3. PHP

4. JavaScript

5. Ruby

6. C#

Software Testing:-

#. Software Testing is an activity to detect and identify the defects in the software.

#. Software Testing is a part of Software Development process.

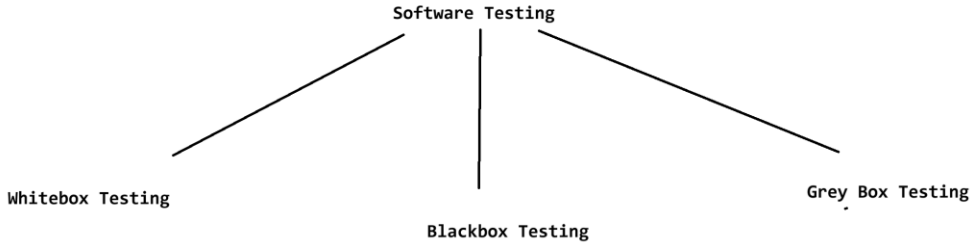
#. The Objective of Software Testing is to release quality product to the client.

Why we do Software Testing???

#. We do software testing to find defects. if we release a software without testing then client/customer might have face severe loss, thus we do software testing.

#. To improve the quality of the software we do software testing.

#. To Check whether the software is working according to the requirement specification we do software testing.



White Box Testing:-

#. Testing Each and Every line of code is called as White Box Testing.

#. Testing which is done by the 'Developer' is called as 'White Box Testing'.

#. It is also called Glass Box/Open Box/Unit Testing.

Black Box Testing:-

#. To Verify the functionality of an application against the requirement specification is called as Black Box Testing.

#. Testing which is done by the 'Test Engineer' is called as 'Black Box Testing'

#. It is also called Functional Testing or Behavioural Testing.

Types of Black Box Testing: -

1. Functional Testing

2. Integration Testing

3. System Testing (End-to-End Testing)

4. User Acceptance Testing (UAT)

5. Smoke Testing

6. Sanity Testing

7. Adhoc Testing

8. Compatibility Testing

9. Regression Testing

10. Usability Testing

11. Alpha Testing

12. Beta Testing

13. Reliability Testing

14. Globalization Testing

15. Localization Testing

16. Performance Testing

17. Security Testing

18. Exploratory Testing

19. Bill Verification Testing (BVT)

Grey Box Testing:-

#. Grey Box Testing is that combines both Black Box and White Box Testing.

Example:- API etc...

Defect: -

#. Deviation from the requirement specification is called as defect.

#. If the feature is not working according to the requirement specification we called as defect.

Q. Why shouldn't developer test the application???

#. Developer will never find the mistake in the code written by himself/herself.

#. If developer will busy in testing then time spent on the coding will be less.

Software Development Life Cycle (SDLC) Phases:-

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1. Requirement Gathering/Analysis --1st-Jan-2025

2. Design-- FDD & TDD (Functional Design Document & Technical Design Document)

3. Coding/ Implementation

4. Testing-- 1st-AUG-2025

5. Deployment

6. Maintains

Company Name: Guvi

Client Name: ABC

Utility Domain Application (GAS/ELECTRICITY/ WATER)

#. User Registration

#. Login

#. Customer Information

#. Bill

#. Payment

#. Compliant

etc...

Different Types of Environments: -

#. Development Environment (DEV Environment)

- Development Environment is used by the developer.

Example:- https://www.facebook.com/login/dev01

#. Testing Environment(TEST Environment)

- Testing Environment is used by the Test Engineer

Example:- https://www.facebook.com/login/test01

#. UAT Environment

- UAT Environment is used by the Client/Customer

Example:- https://www.facebook.com/login/uat01

#. Production Environment

- Production Environment is used by the End Users.

Example:- https://www.facebook.com/login/

#. BVT Environment

- Used by the Bill Verification Test Team

Example:- https://www.facebook.com/login/bvt01

#. Training Environment

- Used for Training Purpose

Example:- https://www.facebook.com/login/train01

#. Conversion Environment

- Conversion Environment is used by the Admin/Conversion/Dev Ops...

Example:- https://www.facebook.com/login/conv01

Defect:-

#. Deviation from the requirement specification is called as defect.

#. If the feature is not working according to the requirement specification then we called it as defect.

Bug:-

#. Informal name given to defect is called as Bug

Error:-

#. Mistake done in the code which is not allowing you to compile or execute

is called an error.

#. Compile Time Error:- Syntax Mistake will lead you to compile time error.

#. Run Time Error:- All logical mistakes will lead you to Run Time Error.

Failure: -

#. A Defect or Bug or Error will lead you to Failure.

JIRA (Atlassian)

#. Defect

Microsoft ADO (Azure DevOps)

#. Bug

HP ALM

#. Defect