Software Testing

| Foundation Certification Level

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What it is?

- It is the process used to identify the correctness, completeness and quality of developed computer software.
- Executes the program/application under positive and negative conditions by manual or automated manner.
- It mainly checks for the
  - Specification
  - Functionality
  - Performance

Why we need a software testing?

- To discover the defects/bugs before the delivery to the client, which guarantees the quality of the software.
- To makes the software more reliable and easy to use.
- To ensure the reliable and high-performance software operation.
- To ensure about the security of the system.
- To enhance the customer satisfaction.

- ***Error*** – Human action that produces the incorrect result that produce a fault.
- ***Bug*** – The presence of error at the time of the software.
- ***Fault*** – State of the software caused by an error.
- ***Failure*** – Deviation of the software from it’s expected result. It is an event.

Software Testing Methods

- ***Black – Box Testing***
  - Functionalities of software applications are tested without having knowledge of internal code structure, implementation details and internal paths.
  - Mainly focuses on input and output of software applications and it is entirely based on software requirements and specification

- ***White – Box Testing***
  - Internal structure, design and coding of software are tested to verify flow of input-output and to improve design, usability and security.
  - Tester knows the internal process, paths and code structure.

Software Testing Levels

- **Unit Testing**

  Find More - https://www.guru99.com/unit-testing-guide.html

  https://www.youtube.com/watch?v=Ij5nnGa_DIw&t=53s

- **Integration Testing**

  Find More - https://www.guru99.com/integration-testing.html

  https://www.youtube.com/watch?v=QYCaaNz8emY

- **System Testing**

  Find More - https://www.guru99.com/system-testing.html

  https://www.youtube.com/watch?v=N8-qNMHOVyw

- **Acceptance Testing**

  Find More - https://www.guru99.com/user-acceptance-testing.html

  https://www.youtube.com/watch?v=N8-qNMHOVyw

THANK YOU