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Task: STLC

**SOFTWARE TESTING LIFE CYCLE**

**SOFTWARE TESTING:**

* Software testing is a process to evaluate the working functionality of a software application, with the intention to find whether the developed software met the specified requirements or not.
* To identify the defects for producing defect free products.

**SOFTWARE TESTING LIFE CYCLE:**

* Identifies what are the test activities to carry out and when to accomplish those tests.
* The testing process is executed in a well-planned and systematic manner.
* All testing activities are done to improve the quality of the product.

**PHASES:**

* Requirement analysis
* Test plan creation
* Environment setup
* Test case execution
* Defect Logging
* Test Cycle Closure

**REQUIREMENT ANALYSIS:**

* Review Software Requirements Documents (SRD) and other documents to understand what needs to be tested.
* If anything is missing, then gather that additional information.
* Identify any inconsistencies in the requirements.
* Identify the risk that may impact the testing process.
* **Deliver**: List of all necessary tests.

**TEST PLAN CREATION:**

* All the test strategies are defined in this phase.
* To calculate the estimated effort and cost of entire project.
* List the methods of the test schedule and control procedures.
* **Deliverable**: Strategy Document, Estimation Document.

**ENVIRONMENT SETUP:**

* It involves setting up the necessary hardware, software and network configurations.
* With the help of those things, to create a test environment.
* Senior developers are going to create a testing environment.
* Deliverable: Execution report, Defect report.

**TEST CASE EXECUTION:**

* Prepare the test data.
* The test cases and the scripts created in the test plan stage are run against the software to detect any defects or issues.
* Test cases and scripts are run as per the test plan.
* The outcomes of each test case (pass, fail, or blocked) are recorded.
* **Deliverable**: Test execution report.

**DEFECTS LOGGING:**

* Ensure all defects are tracked and managed effectively.
* This process involves recording detailed information about the defect to help developers understand, reproduce, and fix the issue efficiently.
* Defects like Quality, time consumption, cost, critical business objectives.
* **Deliverables**: Defect report (Bug Report).

**TEST CYCLE CLOSURE:**

* It includes all in the documents related to the software design, development, testing results and defects reports.
* Test summary report: A report is created, it includes overall testing process, no of test cases executed, no of defects found, overall pass/fail rate.
* Test report knowledge transfer, feedback and improvement details are shared.
* Deliverables: Test closure report.