

**QUALITY ASSURANCE** 

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### **Outline:**

- Day to day QA bacis
- Type Testing
- Process Testing in CICIL



# Day to Day QA basic include:

- Gather requirement specifications.
- Write test cases.
- Run test cases
- Discover bugs and report.
- Retest.



### Gather requirement specifications

It is the process of determining user expectations for a system under consideration. These should be quantifiable and detailed.

Activities QA need to perform.

- Analyze each and every requirement from specification document, use cases.
- List down high level scenarios.
- Clarify queries and functionality from stakeholders.
- Promote suggestions to implement the features or any logical issues.
- Raise defect or clarification against the specification document.
- Track the defect or clarification rose against the specification document.



#### Write test cases

A TEST CASE is a set of actions executed to verify a particular feature or functionality of your software application

#### **Good Test Case**

- 1. Test Cases need to be simple and transparent
- 2. Create Test Case with End User in Mind
- 3. Avoid test case repetition.
- 4. Ensure 100% Coverage
- 5. Detail and specific



Test Case ID	Test Case Description	Test Steps	Section	Expected Results	Actual Results	Pass/Fail
01	Check user login with valid data	1. Go to site https://www.cicil.co.id/ 2. Click login 3. Input email and password 4. Submit	Login	User should login into a website	As expected	Pass
02	Check user login with invalid data	1. Go to site https://www.cicil.co.id/ 2. Click login 3. Input wrong email and password 4. Submit	Login	User should not login into a website	As expected	Pass

- Run test cases
   execute test case one by one
- Discover bugs and report.
   The Bug is the informal name of defects, which means that software or application is not working as per the requirement. In software testing, a software bug can also be issue, error, fault, or failure.
   Elements of a well-reported bug are present, including: name/ID [title], reporter, summary, visual proof[Screenshoot], environment, steps to reproduce, expected vs. actual results.



Retest.
 Retesting is testing of a particular bug after it has been fixed.



## **Types of Testing**

#### 1. Unit Testing

It focuses on the smallest unit of software design. In this, we test an individual unit or group of interrelated units. It is often done by the programmer by using sample input and observing its corresponding outputs.

#### 2. Integration Testing

The objective is to take unit tested components and build a program structure that has been dictated by design. Integration testing is testing in which a group of components is combined to produce output.

#### 3. Regression Testing

Every time a new module is added leads to changes in the program. This type of testing makes sure that the whole component works properly even after adding components to the complete program.

#### 4. Smoke Testing

This test is done to make sure that software under testing is ready or stable for further testing.

It is called a smoke test as the testing an initial pass is done to check if it did not catch the fire or smoke in the initial switch on.

#### 5. Alpha Testing

This is a type of validation testing. It is a type of acceptance testing which is done before the product is released to customers. It is typically done by QA people.

#### 6. Beta Testing

The beta test is conducted at one or more customer sites by the end-user of the software. This version is released for a limited number of users for testing in a real-time environment



#### 7. System Testing

This software is tested such that it works fine for the different operating systems. It is covered under the black box testing technique. In this, we just focus on the required input and output without focusing on internal working.

In this, we have security testing, recovery testing, stress testing, and performance testing

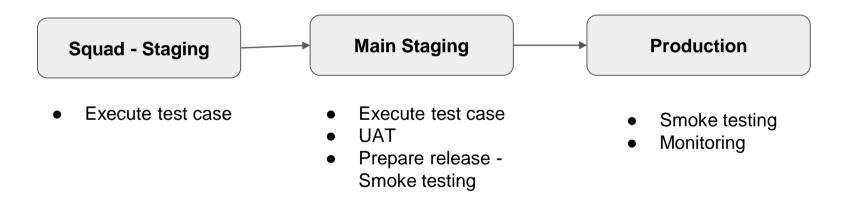
#### 8. Stress Testing

In this, we give unfavorable conditions to the system and check how they perform in those conditions.

#### 9. Performance Testing

It is designed to test the run-time performance of software within the context of an integrated system. It is used to test the speed and effectiveness of the program. It is also called load testing

# **Process Testing in CICIL**





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