A **TEST CASE** is a specific set of conditions or variables under which a tester will determine whether an application, software system, or one of its features is working correctly or not. A Test Case aims to validate software features’ accuracy, completeness, and reliability. A test case usually includes the following details:

* **test case ID,**
* **test case description,**
* **steps to follow,**
* **expected results,**
* **pass/fail criteria, and**
* **status of the test case**

A successful test case should identify correct and incorrect results, and any unexpected results should be reported as a bug. Test cases provide the basis for exhaustively testing a system and thus help increase the reliability and quality of the system by uncovering mistakes or gaps in the system.

Manual testing involves testing software manually, i.e., without using any automated tools. For executing this testing, you sometimes create test cases beforehand. These test cases are called manual test cases. A few examples of manual test cases include:

* **validating that the login page is working properly,**
* **testing that the correct data is displayed on the search results page,**
* **ensuring the registration form is accurate before submission,**
* **testing the functioning of the shopping cart, and**
* **validating the order process.**

Manual test cases are written in a clear and precise manner, which helps testers to understand and execute the tests accurately. Moreover, manual test cases can be used multiple times to execute tests, this helps to save time and money on software testing.

**HOW TO WRITE TEST CASES**

**Step #1 – Test Case ID:**

In this step, the tester will assign a unique identifier to the test case. This allows the tester to recall and identify the test case in the future easily.

EX: TC-01: Verify Login Functionality for a User

**Step #2 – Test Case Description:**

The tester will describe the test case, outlining what it is designed to do. The tester may also provide a brief overview of the expected behavior.

EX:Test Case Description: Test for Logging Into the application Given: A valid username and password for the web application When: User enters the username and password in the login page Then: the user should be able to log in to the application successfully. The Home page for the application should be displayed.

**Step #3 – Pre-Conditions:**

The tester will document any pre-conditions that need to be in place for the test case to run properly. It may include initial configuration settings or manually executing some previous tests. A Pre-Condition example in testing could be that the test environment must be set up, to be very similar to the production environment, including the same hardware, operating system, and software.

**Step #4 – Test Steps:**

The tester will document the detailed steps necessary to execute the test case. This includes deciding which actions should be taken to perform the test and also possible data inputs.

EX STEPS FOR OUR LOGIN TEST

1. Launch the login application under test.

2. Enter a valid username and password in the appropriate fields.

3. Click the ‘Login’ button.

4. Verify that the user has been successfully logged in.

5. Log out and check if the user is logged out of the system.

**Step #5 – Test Data:**

The tester will define any necessary test data. For example, if the test case needs to test that login fails for incorrect credentials, then test data would be a set of incorrect usernames/passwords.

**Step #6 – Expected Result:**

The tester will provide the expected result of the test. This is the result the tester is looking to verify.

Examples of hoe to define expected results:

1. A user should be able to enter a valid username and password and click the login button.

2. The application should authenticate the user’s credentials and grant access to the application.

3. The invalid user should not be able to enter the valid username and password; click the login button.

4. The application should reject the user’s credentials and display an appropriate error message.

**Step #7 –  Post Condition:**

The tester will provide any cleanup that needs to be done after running the test case. This includes reverting settings or cleaning up files created during the test case. **Example:** 1. The user can successfully log in after providing valid credentials. 2. After providing invalid credentials, The user is shown the appropriate error message. 3. The user’s credentials are securely stored for future logins. 4. The user is taken to the correct page after successful login. 5. The user cannot access the page without logging in. 6. No unauthorized access to the user’s data.

**Step #8 – Actual Result:**

The tester will document the actual result of the test. This is the result the tester observed when running the test. **Example**: After entering the correct username and password, the user is successfully logged in and is presented with the welcome page.

**Step #9 – Status:**

The tester will report the status of the test. If the expected and actual results match, the test is said to have passed. If they do not match, the test is said to have failed.

Example: Tested the valid login functionality. Result: The user is able to log in with valid credentials. Overall Test Result: All the test steps were successfully executed, and the expected results were achieved. The login application is functioning as expected. Tested for Invalid Login functionality. Result: The user is unable to log in with invalid credentials. Overall Test Result: The invalid login functionality has been tested and verified to be working as expected.

**Manual testing testcases example:**

Here are some examples that you can easily understand about Manual Testing:

1. Login Page: We can assume a login application like Gmail.

**Test Case 1: Verify that the application allows users to input their username and password.**

**Test Case 2: Verify that the application correctly validates the correct credentials.**

**Test Case 3: Verify that the application displays an error message when the incorrect credentials are entered.**

2. Search Functionality:

We can assume Google searches for this.

**Test Case 1: Verify that users can search for specific records in the database.**

**Test Case 2: Verify that the application displays the query results correctly.**

**Test Case 3: Verify that the application displays an error message when no matches are found.**

3. File Uploads:

We can assume a resume upload in any job portal like LinkedIn or Monster

**Test Case 1: Verify that users are able to upload the correct type of file format.**

**Test Case 2: Verify that the application does not allow users to upload malicious file formats.**

**Test Case 3: Verify that the application displays an error message when the maximum file size is exceeded.**

The types of manual testing test cases are functional test cases, regression test cases, integration test cases, system test cases, GUI test cases, security test cases, usability test cases, performance test cases, compatibility test cases, and acceptance test cases.