What is Software Testing?

Software testing is the process of assessing a software application or system to ensure it works correctly, meets specified requirements, and is free of defects. It involves executing the software to identify bugs or issues, verifying functionality, performance, and security, and validating that the software behaves as expected under different conditions. The goal of software testing is to ensure quality and reliability before the software is released to users.

Different types of Software Testing:

1. Manual Testing.
2. Automation Testing.

What is Manual Testing?

Manual testing is the process of manually verifying software functionality by executing predefined test cases without the use of automated tools. Testers identify defects, evaluate features, and report issues, but the process is time-consuming and susceptible to human error.

Types of Manual Testing:

1. Black Box Testing.
2. White Box Testing.
3. Gray Box Testing.

What is Black Box Testing?

Black Box Testing is a software testing technique where the tester evaluates the functionality of an application by providing inputs and comparing the actual output with the expected output, without knowing the internal code or structure. If the output matches expectations, testing continues; otherwise, issues are reported to the development team.

What is White box Testing?

White Box Testing is a software testing technique where the tester examines the internal structure, code, and design of an application to identify errors. The development team manually reviews the code line by line to ensure correctness and fix any issues found.

What is Gray Box Testing?

Gray Box Testing is a software testing technique that combines elements of both white-box and black-box testing. The tester has partial knowledge of the internal structure and performs tests on both the functionality and code of the application. If issues are found, the tester can modify the code accordingly.