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| Project Name | Job/ Skill Recommender Application |

## Utilization Of Testing Tool:

### Types of software testing tools:

Software testing tools are developed to manage many different types of functional and non-functional tests. [Functional tests](#) are designed to determine whether an application delivers all the functionality and features specified in the project requirements. Non-functional testing evaluates the software's performance, usability, reliability, security, and other factors to determine how well it performs and what kind of user experience it offers.

There are a number of common software testing tools used by development teams today.

- Test management tools manage many aspects of the testing protocol by tracking activity, analyzing data, managing test cases, executing automated tests, and planning and tracking manual testing.
- [Unit testing](#) tools help to ensure that individual modules or units of code work as intended. Unit tests are the most basic element of software testing.
- Integration testing tools are designed to find bugs that occur when different units are combined.
- [Regression testing](#) tools determine whether new code or features added to software break or degrade existing functionality.
- Performance testing tools, also known as load testing tools, evaluate the performance of a piece of software under different loads and as it scales to accommodate more users and larger amounts of data.
- Bug tracking tools help to find bugs in the testing stage and keep a record of bug fixes.
- Automation testing tools help to manage the process of preparing and executing automated tests and tracking and communicating results.
- Cross-browser testing tools evaluate how well an application works in multiple browsers, devices, and platforms.
- Security testing tools look for any vulnerabilities within the software that might be exploited by malicious actors.
- UI testing tools evaluate the user interface to ensure that the software offers a superior experience.

## Advantages or benefits of using testing tools:

- **Reduction of repetitive work:** Repetitive work is very boring if it is done manually. People tend to make mistakes when doing the same task over and over. Examples of this type of repetitive work include running regression tests, entering the same test data again and again (can be done by a test execution tool), checking against coding standards (which can be done by a static analysis tool) or creating a specific test database (which can be done by a test data preparation tool).
- **Greater consistency and repeatability:** People have tendency to do the same task in a slightly different way even when they think they are repeating something exactly. A tool will exactly reproduce what it did before, so each time it is run the result is consistent.
- **Objective assessment:** If a person calculates a value from the software or incident reports, by mistake they may omit something, or their own one-sided preconceived judgments or convictions may lead them to interpret that data incorrectly. Using a tool means that subjective preconceived notion is removed and the assessment is more repeatable and consistently calculated. Examples include assessing the cyclomatic complexity or nesting levels of a component (which can be done by a static analysis tool), coverage (coverage measurement tool), system behavior (monitoring tools) and incident statistics (test management tool).
- **Ease of access to information about tests or testing:** Information presented visually is much easier for the human mind to understand and interpret. For example, a chart or graph is a better way to show information than a long list of numbers – this is why charts and graphs in spreadsheets are so useful. Special purpose tools give these features directly for the information they process. Examples include statistics and graphs about test progress (test execution or test management tool), incident rates (incident management or test management tool) and performance (performance testing tool).

