# Program to Upload Files and Handle Various Web Elements.

## Write UP

- In this Java project, we aim to automate web testing and file upload functionalities using Selenium WebDriver, AutoIT, and a MySQL database. The project is structured using various classes and design patterns for better maintainability and scalability.

- The first step involves creating a Java project and adding the Selenium Standalone Server jar files to manage the browser automation. We then open the browser and locate web elements using Locators. To enhance code organization, a page object design pattern class is created to store and manage the web elements of a webpage efficiently.

- AutoIT is installed and configured to handle file uploads. The SciTE editor is used to write a script that selects a file from the desktop. This script is saved as a .au3 file and compiled for integration into the Java project. A dedicated class is created to invoke the AutoIT script and facilitate seamless file uploads in the WebDriver automation process.

- The project architecture includes separate classes to handle web elements, external elements (AutoIT interactions), and a JDBC connection class for database operations. A table in a MySQL database is created to store product data, and a DB connection class is implemented to initiate JDBC connections, ensuring efficient communication between the Java application and the database.

- Additionally, a class for taking screenshots is created to capture the state of the application at different stages. This is valuable for debugging and documenting the test execution process.

- Finally, the project is executed, and the entire automation process is run seamlessly. This comprehensive approach ensures modularity, ease of maintenance, and scalability in handling various aspects of web testing, file uploads, and database interactions. By adhering to best practices in code organization and design patterns, the project is robust and adaptable to future changes and enhancements.