**Assignment: Understanding Test Automation**

**Objective:**  
Explore the concept of test automation, its benefits, key tools, comparison with manual testing, and real-world applications.

**Instructions:**

1. Define test automation and explain how it differs from manual testing.
2. Describe key test automation tools (e.g., Selenium, Cypress, JUnit).
3. Highlight the advantages and challenges of test automation.
4. Compare popular test automation frameworks.
5. Discuss real-world applications and industries that benefit from test automation.

**Submission Format:**

* Write a **1,000-word** report.
* Use proper formatting and citations.
* Submit as a PDF or Word document.