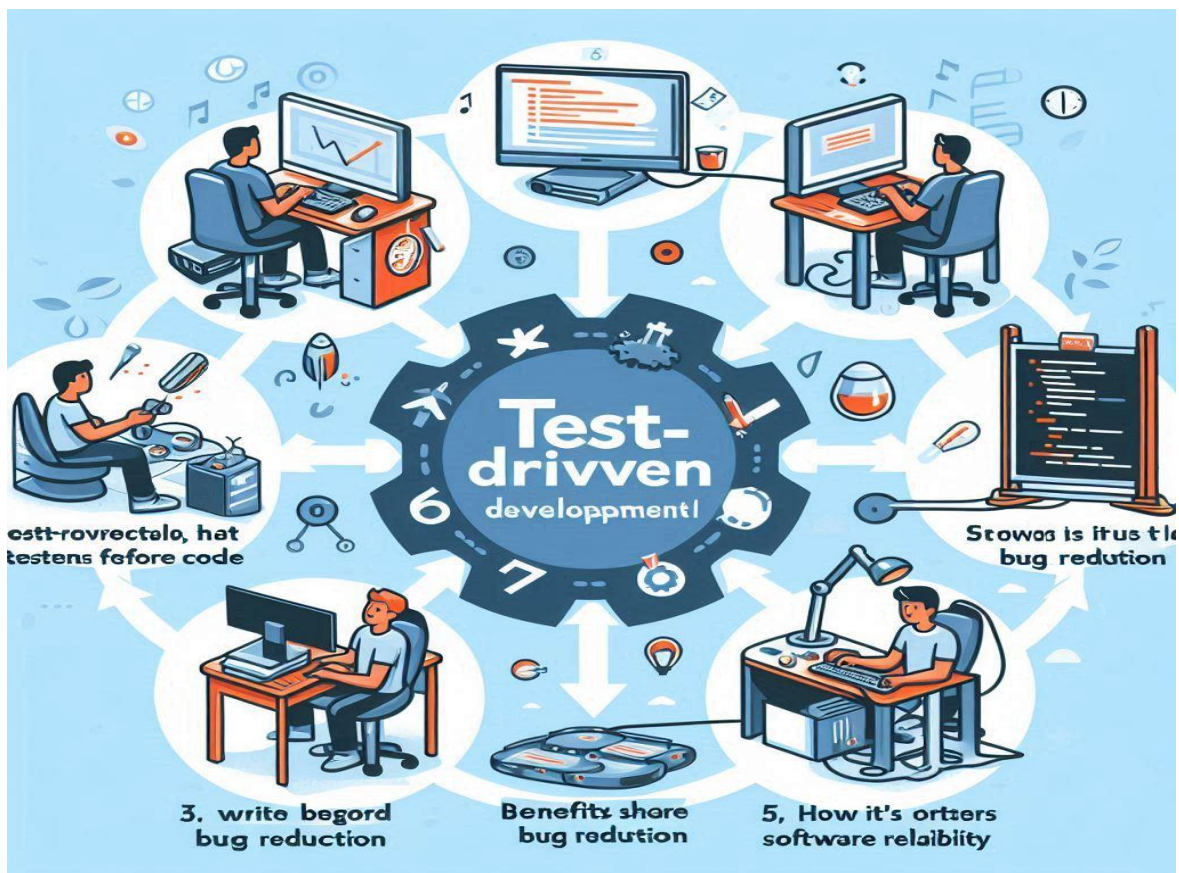


Assignment 1: Create an infographic illustrating the Test-Driven Development (TDD) process. Highlight steps like writing tests before code, benefits such as bug reduction, and how it fosters software reliability.



Test-Driven Development (TDD) process. Here are the key steps and benefits:

- 1. Write a Failing Test:**
 - Start by writing a test that describes the desired behavior of a feature or function.
 - This test should fail initially because the feature doesn't exist yet.
- 2. Write the Minimum Code to Pass the Test:**

- Implement the minimum code necessary to make the test pass.
- Don't worry about writing perfect or complete code at this stage.
- 3. **Refactor:**
 - After the test passes, refactor your code to improve its design, readability, and maintainability.
 - TDD encourages continuous refactoring to keep the codebase clean.
- 4. **Repeat the Cycle:**
 - Write another failing test for the next feature or functionality.
 - Implement the code to pass the test.
 - Refactor as needed.
- 5. **Benefits of TDD:**
 - **Bug Reduction:** By catching issues early through tests, you reduce the chances of introducing bugs.
 - **Improved Code Quality:** TDD encourages modular, well-structured code.
 - **Software Reliability:** Rigorous testing ensures that your software behaves as expected.