

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



Create Precise Tests

Write precise tests for the functionality you want to add.

Example: "Write a test that checks if the user can log in."



Correcting the Code

Write the minimum amount of code required to pass the test.

Example: "Implement the login functionality to pass the test."



Refactor the Code

Refactor the code while ensuring tests still pass, improving code quality.

Example: "Clean up the login function, improve readability."



Repeat

Repeat the cycle for the next piece of functionality.

Example: "Proceed to the next feature or bug fix."

Benefits of TDD



Higher Code Quality

Ensures code is tested thoroughly from the beginning.



Faster Debugging

Tests catch bugs early, making them easier to fix.



Better Design

Encourages simpler, more modular code.



Improved Documentation

Tests serve as documentation for how the code should behave.