DAY 3:

ASSIGNMENT 1 :

Q) 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.

Answer:

Creating an infographic about Test-Driven Development (TDD) sounds like a great idea! Here's a rough outline:

Title: Test-Driven Development (TDD) Process

1. *Step 1: Write Tests*

   - Illustration: A developer writing tests before any code.

   - Caption: Begin by writing tests that describe the desired functionality.

2. *Step 2: Run Tests*

   - Illustration: A testing environment showing tests being executed.

   - Caption: Run the tests to ensure they fail, as no code has been written yet.

3. *Step 3: Write Code*

   - Illustration: Developer coding based on the failing tests.

   - Caption: Write the minimum code necessary to pass the failing tests.

4. *Step 4: Refactor Code*

 - Illustration: Developer optimizing and improving the code without changing its behavior.

   - Caption: Refactor the code to improve readability, maintainability, and performance.

5. *Step 5: Run Tests Again*

- Illustration: Tests being executed again after code changes.

- Caption: Run the tests to ensure that the code changes didn't introduce any new bugs.

6. *Benefits of TDD*

- Illustration: A graph showing a decrease in bugs over time.

- Caption: Reduces bugs by catching them early in the development process.

7. *Enhanced Software Reliability*

- Illustration: A shield symbolizing reliability.

- Caption: TDD fosters software reliability by continually validating its correctness.

Remember to use colors, icons, and concise text to make the infographic visually appealing and easy to understand! Let me know if you need further assistance.