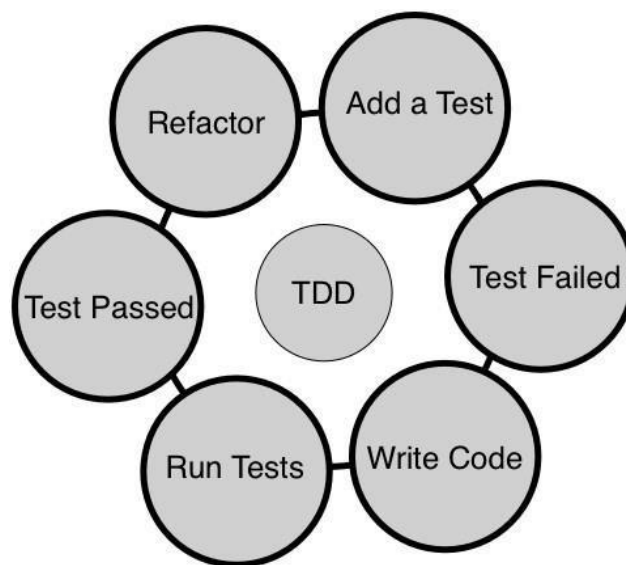


ASSIGNMENT-2

Assignment 2: Produce a comparative infographic of TDD, BDD, and FDD methodologies. Illustrate their unique approaches, benefits, and suitability for different software development contexts. Use visuals to enhance understanding.

1. Test-Driven Development (TDD):



Approach:

In TDD, developers write tests before writing the actual code. The cycle typically involves three steps:

Red : write a failing test.

Green : write the minimum code to pass the test.

Refactor : improve the code without changing functionality.

Benefits:

- Ensures code correctness by focusing on test coverage.
- Early detection of defects.
- Drives better design decisions.
- Provides a safety net for code changes.
- Clean, refactored codebase.

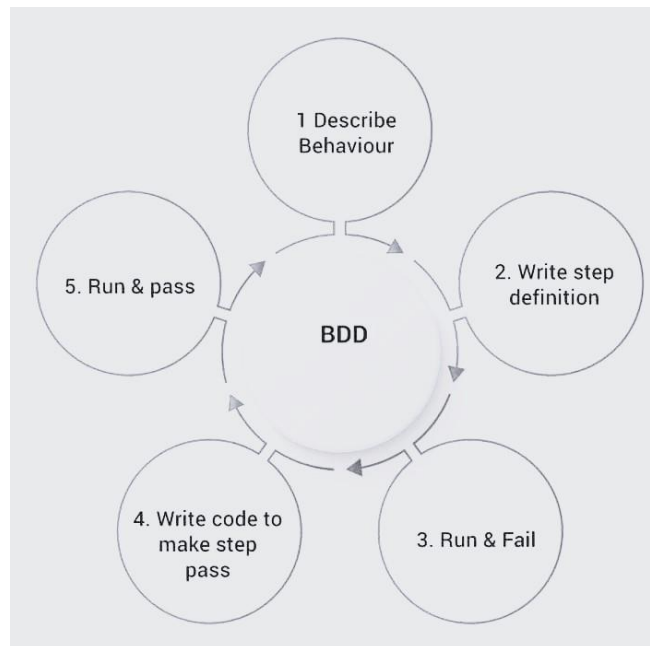
Suitability:

- Ideal for small, well-defined features.
- Commonly used in agile development.

Examples:

Financial systems, safety-critical applications.

2. Behaviour-Driven Development(BDD):



Behaviour-Driven Development (BDD):

Approach:

- BDD extends TDD by emphasizing behavior over implementation details.
- It uses a natural language syntax (Given-When-Then) to describe system behavior.

Benefits:

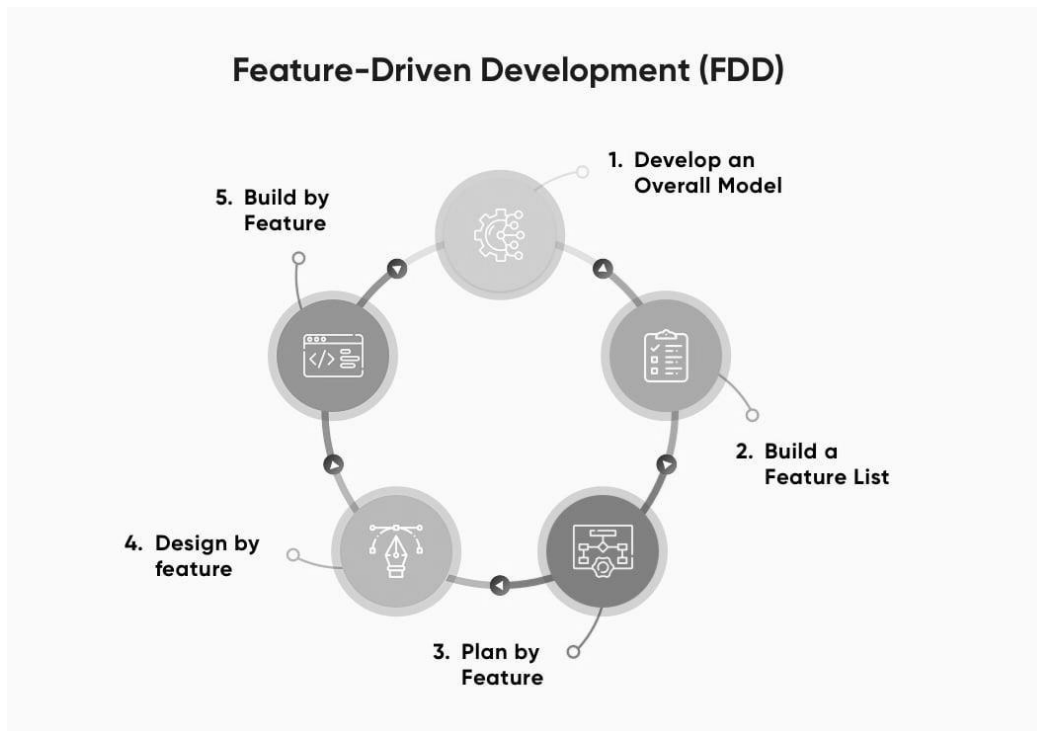
- Improved communication among stakeholders.
- Improves communication by using plain language.
- Clear understanding of requirements.
- Focuses on user needs.

Suitability:

- Well-suited for complex systems with intricate interactions.
- Useful for acceptance testing and end-to-end scenarios.

Examples:

E-commerce platforms, customer-facing applications.

3. Feature-Driven Development (FDD):**Approach:**

- FDD focuses on building features incrementally.
- It involves creating a feature list, designing features, and then implementing them.

Benefits:

- Provides a structured approach to feature development.
- Emphasizes domain modeling and design.
- Scales well for large projects.

Suitability:

- Best for large, team-based projects.
- Works well when features can be modularized.

Examples:

Enterprise systems, multi-feature software projects.