Assignment 2

Test-Driven Development (TDD)

Approach:

Write tests before writing code.

Focus on unit tests to verify individual components.

Benefits:

Early bug detection.

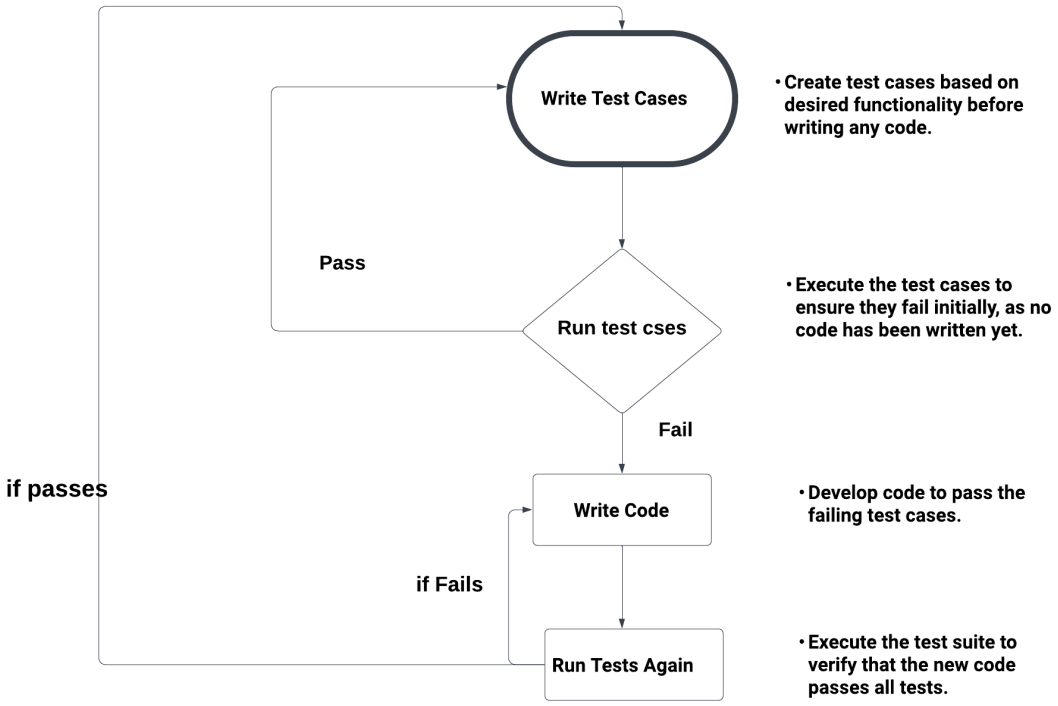
Improved code quality.

Modular and maintainable codebase.

Suitability:

Ideal for projects with well-defined requirements.

Best suited for small to medium-sized teams.



Behavior-Driven Development (BDD)

Approach:

Define behavior in natural language specifications (Given-When-Then).

Automated tests validate behavior from the user's perspective.

Benefits:

Encourages collaboration between developers, testers, and stakeholders.

Focuses on meeting user requirements and business goals.

Suitability:

Well-suited for projects with complex business logic.

Particularly effective for projects with changing requirements or evolving specifications.

Feature-Driven Development (FDD)

Approach:

Emphasizes iterative and incremental development.

Features are developed and delivered incrementally.

Benefits:

Clear focus on delivering tangible business value.

Scalable to large, complex projects.

Suitability:

Suitable for projects with large development teams.

Best suited for projects with a clear understanding of business requirements and a stable development environment.