

## Assignment 1: Test-Driven Development (TDD) Process Infographic

Step	Description
Introduction	Test-Driven Development (TDD) ensures code functionality and reliability from the outset.
TDD Process	<ol style="list-style-type: none"><li>1. Write Test: Developers write a failing test case.</li><li>2. Write Code: Minimum code to pass test.</li><li>3. Run Tests: Ensure new code passes and existing functionalities remain intact.</li><li>4. Refactor Code: Improve structure without altering functionality.</li><li>5. Repeat for each new functionality/change.</li></ol>
Benefits of TDD	<ul style="list-style-type: none"><li>- Bug Reduction: Early detection of bugs.</li><li>- Improved Design: Encourages modular, loosely coupled code.</li><li>- Faster Development: Reduces debugging time.</li><li>- Increased Confidence: Stakeholders gain confidence in reliability.</li></ul>
Fostering Reliability	<ul style="list-style-type: none"><li>- Every piece of code is thoroughly tested.</li><li>- Constant testing and refactoring improve overall quality.</li><li>- Reduces unexpected issues in production.</li></ul>

## Assignment 2: Comparative Infographic of TDD, BDD, and FDD

Aspect	TDD (Test-Driven Development)	BDD (Behavior-Driven Development)	FDD (Feature-Driven Development)
Approach	Write tests before code.	Focuses on behaviors and outcomes.	Breaks development into small, manageable features.
Benefits	<ul style="list-style-type: none"><li>- Bug Reduction</li><li>- Improved Design</li><li>- Faster Development</li><li>- Increased Confidence</li></ul>	<ul style="list-style-type: none"><li>- Enhanced Collaboration</li><li>- Clarity of Requirements</li></ul>	<ul style="list-style-type: none"><li>- Scalability</li><li>- Tangible Deliverables</li><li>- Progress Tracking</li></ul>
Suitable for	Agile Environments Iterative Development Projects with Evolving Requirements	Projects with Complex Business Logic Customer-Centric Development	Large-Scale Projects Teams with Diverse Skill Sets Projects with Fixed Deadlines