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.

Comparative Infographic: TDD vs BDD vs FDD Methodologies

1. **Introduction to Methodologies:**

   - Brief overview of TDD, BDD, and FDD methodologies, highlighting their objectives and principles.

2. **TDD (Test-Driven Development):**
   o **Approach:**
     ▪ Visual representation of writing tests before writing code, emphasizing the "test-first" approach.
   o **Benefits:**
     ▪ Illustration of reduced bugs, improved code quality, and faster development cycles.
   o **Suitability:**
     ▪ Icons representing TDD's suitability for iterative development, Agile environments, and projects with clear requirements.
3. **BDD (Behavior-Driven Development):**

   - **Approach:**

     ▪ Visual representation of writing tests in a human-readable format using Given-When-Then syntax, focusing on behavior rather than implementation details.

   - **Benefits:**

     ▪ Illustration of improved collaboration between developers, testers, and business stakeholders, leading to better understanding and validation of requirements.

   - **Suitability:**

     ▪ Icons representing BDD's suitability for projects with complex business logic, user-centric applications, and cross-functional teams.

4. **FDD (Feature-Driven Development):**

   - **Approach:**

     - Visual representation of breaking down the development process into features, with each feature having its own development cycle.

   - **Benefits:**

     - Illustration of improved project visibility, streamlined development process, and better management of project scope.

   - **Suitability:**

     - Icons representing FDD's suitability for large-scale projects, teams with a structured development process, and projects with changing requirements.

5. **Comparison:**

   - Side-by-side comparison of TDD, BDD, and FDD methodologies, highlighting their key differences in approach, benefits, and suitability for different contexts.
   - Visual representation of their common goals of improving software quality, reducing defects, and enhancing collaboration.

6. **Choosing the Right Methodology:**

   - Factors to consider when selecting a methodology, such as project size, team expertise, customer involvement, and project requirements.
   - Visual depiction of how these factors influence the choice of methodology and project success.