### **Development Methodlogies**

### **Domain-Driven Development (DDD)**

Focuses on the **core business logic** and the problems that software is meant to solve.

* Developers and domain experts **collaborate closely**.
* Software is built around a **domain model** (a real-world concept).
* Ideal for complex business applications.  
   *“Understand the business deeply before coding.”*

### **2️ Test-Driven Development (TDD)**

In TDD, tests are **written before the code**.

* Developers first write a **failing test**, then write code to pass it.
* Ensures **better code quality** and fewer bugs.
* ✅ Encourages clean, bug-free, and well-tested code.  
   🔁 *Red → Green → Refactor (Fail → Pass → Improve)*

### **3️ Behavior-Driven Development (BDD)**

An extension of TDD that focuses on **user behavior**.

* Uses **plain language (Given-When-Then)** to describe test cases.
* Involves developers, testers, and non-technical stakeholders.
* ✅ Makes tests more understandable and aligns with **user needs**.  
   🗣️ *“Let’s write tests the way users think.”*

### **Feature-Driven Development (FDD)**

Builds the system **feature by feature**, based on client-valued functionality.

* Each feature goes through **design, build, and test** steps.
* Highly structured and scalable.
* ✅ Great for large teams and big projects.  
   📋 *“Plan, design, and build small features one at a time.”*