**5. Spring MVC**

**1. Spring Data JPA Components:**

• **Theory:**

**1.** **Overview of the MVC (Model-View-Controller) design pattern:-** The MVC (Model-View-Controller) design pattern is a structured approach for developing applications by separating concerns into three components:

**1️.Model** – Represents the data and business logic.  
**2️.View** – Handles the user interface (UI).  
**3️.Controller** – Manages user requests and updates the model/view.

**2. Explanation of the Spring MVC framework and how it simplifies web development**:- Spring MVC (Model-View-Controller) is a web framework in the Spring ecosystem that simplifies the development of Java web applications by handling request processing, response generation, and UI rendering efficiently.

**How Spring MVC Works? (Request Flow)**

1️.User sends a request (e.g., accessing a webpage).  
2️.DispatcherServlet (Front Controller) intercepts the request.  
3️.Controller processes the request using @Controller and @RequestMapping.  
4️.Service Layer (Model) handles business logic & data fetching.  
5️.View Resolver selects the appropriate view (JSP, Thymeleaf, etc.).  
6️.Response is sent back to the user.