**Lab 3 Short Answers**

1. What is Spring?

- Spring is a widely used framework for building enterprise Java applications, which makes it easier to develop robust, scalable, and maintainable applications.

2. What is Spring Boot?

- Spring Boot is an extension of the Spring framework. It offers a convention-over-configuration approach, reduces the amount of boilerplate code needed to get an application up and running quickly.

3. What is the relation between Spring platform and Spring Boot?

- Spring Boot is built on top of the Spring platform. It leverages many features of the Spring framework while providing additional capabilities for rapid application development and streamlined configuration. Its more of convention in spring-boot over configuration which we do in spring framework.

4. What is the relation between Spring platform and Spring framework?

- The Spring platform encompasses the entire ecosystem of Spring projects, like Spring framework, Spring Boot, Spring Data, Spring Security, etc. The Spring framework, on the other hand, is the foundation of this platform, providing core features such as dependency injection and aspect-oriented programming.

5. What is Dependency Injection and how is it done in the Spring platform/framework?

- Dependency Injection (DI) is a design pattern used to create loosely coupled components in a software application. In Spring, DI is achieved through inversion of control (IoC) containers.

6. What is Inversion of Control (IoC) and how is it related to Spring?

- Inversion of Control (IoC) is a design principle where the control over the flow of a program is transferred to a container or framework. In Spring, IoC is implemented through the use of containers, which manage the instantiation and configuration of application objects. This allows for greater flexibility, modularity, and testability in software development. They also call it The Hollywood principle (Don’t call us, we will call you).