

Exercise 2: Implementing Dependency Injection

```
package com.example.demo;
```

```
public interface GreetingService {  
    String greet();  
}
```

```
package com.example.demo;
```

```
import org.springframework.stereotype.Service;
```

```
@Service
```

```
public class GreetingServiceImpl implements GreetingService {
```

```
    @Override
```

```
    public String greet() {  
        return "Hello from the Greeting Service!";  
    }  
}
```

```
}
```

```
package com.example.demo;
```

```
import org.springframework.web.bind.annotation.GetMapping;
```

```
import org.springframework.web.bind.annotation.RestController;
```

```
@RestController
```

```
public class GreetingController {
```

```
    private final GreetingService greetingService;
```

```

public GreetingController(GreetingService greetingService) {

    this.greetingService = greetingService;

}

@GetMapping("/greet")

public String greet() {

    return greetingService.greet();

}

}

```

OUTPUT:

The screenshot shows the Eclipse IDE with the following components:

- Project Explorer:** Shows the project structure with folders like `11_SpringBootLoginDemo`, `ControlStructureProject`, `course-registration-service`, `course-service`, `demo [boot]`, and `dependency-injection-demo [boot]`. The `src/main/java` folder is expanded, showing the package `com.example.demo` with files `DependencyInjectionDemoApplic`, `GreetingController.java`, `GreetingService.java`, and `GreetingServiceImpl.java`.
- Editor:** Displays the `GreetingController.java` file with the following code:


```

11
12= public GreetingController(GreetingService greetingService) {
13     this.greetingService = greetingService;
14 }
15
16= @GetMapping("/greet")
17 public String greet() {
18     return greetingService.greet();
19 }
20 }
21

```
- Console:** Shows the output of the application:


```

DependencyInjectionDemoApplication (Java Application) C:\Users\BORRA Panitha\p2\pool\plugins\org.eclipse.just\openjdk.hotspot.jre.full.win32.x86_64-17.0.5.v20221102-0933\jre\bin\javaw.exe (6 Jul 2025, 11:51:06 am)
DependencyInjectionDemoApplication : Starting DependencyInjectionDemoApplication using Java 17
DependencyInjectionDemoApplication : No active profile set, falling back to 1 default profile:
.w.embedded.tomcat.TomcatWebServer : Tomcat initialized with port 9090 (http)
che.catalina.core.StandardService : Starting service [Tomcat]
che.catalina.core.StandardEngine : Starting Servlet engine: [Apache Tomcat/10.1.42]
.c.C.[Tomcat].[localhost].[/] : Initializing Spring embedded WebApplicationContext
.ServletWebServerApplicationContext : Root WebApplicationContext: initialization completed in 1
.w.embedded.tomcat.TomcatWebServer : Tomcat started on port 9090 (http) with context path '/'
DependencyInjectionDemoApplication : Started DependencyInjectionDemoApplication in 3.108 secor
.c.C.[Tomcat].[localhost].[/] : Initializing Spring DispatcherServlet 'dispatcherServlet'
ab.servlet.DispatcherServlet : Initializing Servlet 'dispatcherServlet'
ab.servlet.DispatcherServlet : Completed initialization in 2 ms

```

Hello from the Greeting Service!