SCHOOL OF ENGINEERING

Google Class Code:22u2lc7

SPRING BOOT

Presentation Material

Department of Computer Science & Engineering

Course Code:
22CS3509

Semester: V

Course Title: SPRING BOOT

Year: III

Faculty Name: Dr. Gokulakrishnan S

Iteration-1 Tightly Coupled

Demo1Application.java × MarioGame.java GameRunner.java

```java
1  package com.example1.demo1;
2
3  import org.springframework.boot.SpringApplication;
8
9  @SpringBootApplication
10 public class Demo1Application {
11
12     public static void main(String[] args) {
13         SpringApplication.run(Demo1Application.class, args);
14         MarioGame game=new MarioGame();
15         GameRunner runner=new GameRunner(game);
16         runner.run();
17     }
18
19 }
20
```

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MarioGame.java × GameRunner.java

```java
1 package com.example1.demo1.game;
2
3 public class MarioGame {
4    void up()
5    {
6        System.out.println("Mario UP");
7    }
8
9 }
10
```

Demo1Application.java   MarioGame.java   **GameRunner.java** ×

```java
1 package com.example1.demo1.game;
2
3 public class GameRunner {
4    private MarioGame game;
5    public GameRunner(MarioGame game)
6    {
7        this.game=game;
8    }
9
10   public void run()
11   {
12       game.up();
13   }
14 }
```

Problems Servers Terminal Data Source Explorer Properties **Console** ×

<terminated> Demo1Application [Java Application] C:\Users\HP\OneDrive\DSU\Subjects Related\SpringBoot\eclipse-jee-2024-09-R-win32-x86_64\eclips

```
\\/  ___)| |_)| | | | | | || (_| |  ) ) ) )
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 :: Spring Boot ::                (v3.3.3)

2024-09-19T10:34:55.947+05:30  INFO 6928 --- [demo1] [        main] com.example1.demo1.Demo1Application
2024-09-19T10:34:55.951+05:30  INFO 6928 --- [demo1] [        main] com.example1.demo1.Demo1Application
2024-09-19T10:34:56.696+05:30  INFO 6928 --- [demo1] [        main] com.example1.demo1.Demo1Application
Mario UP
```

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Iteration-2 Loosely Coupled- Level 2 - Java Interfaces

Demo1Application.java × | MarioGame.java | GameRunner.java | Gamingconsole.java | Pacman.java

```java
 1 package com.example1.demo1;
 2
 3 import org.springframework.boot.SpringApplication;
 9
10 @SpringBootApplication
11 public class Demo1Application {
12
13     public static void main(String[] args) {
14         SpringApplication.run(Demo1Application.class, args);
15         //MarioGame game=new MarioGame();
16         Pacman game=new Pacman();
17         GameRunner runner=new GameRunner(game);
18         runner.run();
19     }
20
21 }
22
```

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Demo1Application.java | MarioGame.java × | GameRunner.java

```java
1 package com.example1.demo1.game;
2
3 public class MarioGame implements Gamingconsole {
4     public void up()
5     {
6         System.out.println("DSU Mario UP");
7     }
8
9 }
10
```

Demo1Application.java | MarioGame.java | GameRunner.java | Gamingconsole.java | Pacman.java ×

```java
1 package com.example1.demo1.game;
2
3 public class Pacman implements Gamingconsole {
4     public void up()
5     {
6         System.out.println("DSU Pacman UP");
7     }
8
9 }
10
```

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Demo1Application.java   MarioGame.java   GameRunner.java ×

```java
1  package com.example1.demo1.game;
2
3  public class GameRunner {
4      private Gamingconsole game;
5      public GameRunner(Gamingconsole game)
6      {
7          this.game=game;
8      }
9
10     public void run()
11     {
12         game.up();
13     }
14 }
15
```

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Demo1Application.java   MarioGame.java   GameRunner.java   Gamingconsole.java ×

```java
1 package com.example1.demo1.game;
2
3 public interface Gamingconsole {
4     void up();
5 }
6
```

:: Spring Boot ::   (v3.3.3)

```
2024-09-19T11:14:36.506+05:30  INFO 9176 --- [demo1] [        main] com.example1.demo1.Demo1Application
2024-09-19T11:14:36.512+05:30  INFO 9176 --- [demo1] [        main] com.example1.demo1.Demo1Application
2024-09-19T11:14:37.558+05:30  INFO 9176 --- [demo1] [        main] com.example1.demo1.Demo1Application
DSU Pacman UP
```

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Demo1Application.java × | MarioGame.java | GameRunner.java | Gamingconsole.java | Pacman.java

```java
 1 package com.example1.demo1;
 2
 3 import org.springframework.boot.SpringApplication;
 4 import org.springframework.boot.autoconfigure.SpringBootApplication;
 5
 6 import com.example1.demo1.game.GameRunner;
 7 import com.example1.demo1.game.MarioGame;
 8 import com.example1.demo1.game.Pacman;
 9 import com.example1.demo1.game.Gamingconsole;
10
11 @SpringBootApplication
12 public class Demo1Application {
13
14     public static void main(String[] args) {
15         SpringApplication.run(Demo1Application.class, args);
16         //MarioGame game=new MarioGame();
17         Gamingconsole game=new Pacman();
18         GameRunner runner=new GameRunner(game);
19         runner.run();
20     }
21
```

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Iteration-3 Loosely Coupled- Level 2 -Spring Framework

Demo1Applic... ✕ GameRunner.java   Pacman.java   Game3.java   GamingConso...   component.java

```java
1 package com.example1.demo1;
2
3 import org.springframework.boot.SpringApplication;
4 import org.springframework.boot.autoconfigure.SpringBootApplication;
5 import org.springframework.context.ConfigurableApplicationContext;
6
7 import com.example1.demo1.game.Game3;
8 import com.example1.demo1.game.GameRunner;
9 import com.example1.demo1.game.MarioGame;
10 import com.example1.demo1.game.Pacman;
11 import com.example1.demo1.game.Gamingconsole;
12
13 @SpringBootApplication
14 public class Demo1Application {
15
16     public static void main(String[] args) {
17         ConfigurableApplicationContext context = SpringApplication.run(Demo1Application.class, args);
18
19 //    MarioGame game=new MarioGame();
20 //    Pacman game=new Pacman();
21         //Game3 game=new Game3();
22         //GameRunner runner=new GameRunner(game);
23         GameRunner runner=context.getBean(GameRunner.class);
24         runner.run();
25     }
26
27 }
28
```

Demo1Applic... GameRunner.java × Pacman.java   Game3.java   GamingConso...   component.java

```java
1 package com.example1.demo1.game;
2
3 import org.springframework.beans.factory.annotation.Autowired;
4 import org.springframework.stereotype.Component;
5
6 import com.example1.demo1.gamee.GamingConsole;
7 @Component
8 public class GameRunner {
9     @Autowired
10    private GamingConsole game;
11    //private Pacman game;
12    //private Game3 game;
13    public GameRunner(GamingConsole game)
14    {
15        this.game=game;
16    }
17
18    public void run()
19    {
20        game.up();
21    }
22 }
23
```

Demo1Applic...　　J GameRunner.java　　J Pacman.java ×　J Game3.

```java
1 package com.example1.demo1.game;
2
3 import org.springframework.stereotype.Component;
4
5 import com.example1.demo1.gamee.GamingConsole;
6 @Component
7 public class Pacman implements GamingConsole {
8     public void up()
9     {
10          System.out.println("DSU Pacman UP");
11     }
12
13 }
14
```

Demo1Applic...   GameRunner.java   Pacman.java   Game3.java ×

```java
1 package com.example1.demo1.game;
2
3 import org.springframework.context.annotation.Primary;
4 import org.springframework.stereotype.Component;
5
6 import com.example1.demo1.gamee.GamingConsole;
7 @Component
8 @Primary
9 public class Game3 implements GamingConsole{
10     public void up()
11     {
12         System.out.println("GAME 3 LEFT");
13     }
14
15 }
16
```

Demo1Applic...   MarioGame.java   GameRunner.java   Pacman.java   Game3.java   GamingConso... ×

```java
1 package com.example1.demo1;
2
3 public interface GamingConsole {
4 void up();
5 }
6
```
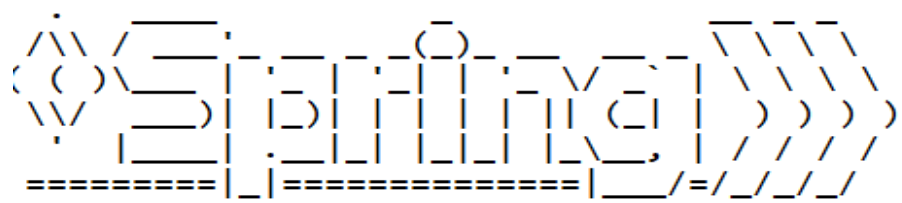
Tabs: Demo1Applic... | MarioGame.java | GameRunner.java | Pacman.java | Game3.java × | GamingConso... | »₁

```java
package com.example1.demo1.game;


import org.springframework.context.annotation.Primary;
import org.springframework.stereotype.Component;


import com.example1.demo1.gamee.GamingConsole;
@Component
@Primary
public class Game3 implements GamingConsole{
    public void up()
    {
        System.out.println("GAME 3 LEFT");
    }

}
```

Problems | Servers | Terminal | Data Source Explorer | Properties | Console ×

```
terminated> Demo1Application [Java Application] C:\Users\HP\OneDrive\DSU\Subjects Related\SpringBoot\eclipse-jee-2024-09-R-win32-


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 :: Spring Boot ::                (v3.3.3)

2024-09-27T13:02:22.457+05:30  INFO 8664 --- [demo1] [                main] com.example1.demo1.Demo1Appli
2024-09-27T13:02:22.459+05:30  INFO 8664 --- [demo1] [                main] com.example1.demo1.Demo1Appli
2024-09-27T13:02:23.244+05:30  INFO 8664 --- [demo1] [                main] com.example1.demo1.Demo1Appli
GAME 3 LEFT
```