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Day-8 class Assignment

Case Study 1: Java-Based Configuration Project

Title: Online Food Ordering System

Configuration Type: Java-based Spring Configuration

1.Customer.java

```
package com.spring.foodorder;

import org.springframework.stereotype.Component;

@Component

public class Customer {

    private String name = "Murthy";

    private String contactInfo = "6305753701";

    private String preferredCuisine = "Indian";


    public String getName() { return name; }

    public String getContactInfo() { return contactInfo; }

    public String getPreferredCuisine() { return preferredCuisine; }

}
```

2.Restaurant.java

```
package com.spring.foodorder;

import org.springframework.stereotype.Component;

@Component

public class Restaurant {
```

```
private String name = "Sky Villa";  
private String location = "vizag";  
private String availableCuisine = "Indian";  
  
public String getName() { return name; }  
public String getLocation() { return location; }  
public String getAvailableCuisine() { return availableCuisine; }  
}
```

3.FoodOrderService.java

```
package com.spring.foodorder;  
  
import org.springframework.beans.factory.annotation.Autowired;  
import org.springframework.stereotype.Component;  
  
@Component  
public class FoodOrderService {  
    private Customer customer;  
    private Restaurant restaurant;  
  
    @Autowired  
    public FoodOrderService(Customer customer, Restaurant restaurant) {  
        this.customer = customer;  
        this.restaurant = restaurant;  
    }  
  
    public void processOrder() {  
        if (customer.getPreferredCuisine().equalsIgnoreCase(restaurant.getAvailableCuisine())) {  
            System.out.println("Order placed successfully from " + restaurant.getName() + " for " +  
customer.getName());  
        } else {
```

```

        System.out.println("No matching cuisine found for " + customer.getName());
    }
}

```

4.MainApp.java

```

package com.spring.foodorder;

import org.springframework.context.ApplicationContext;
import org.springframework.context.annotation.AnnotationConfigApplicationContext;
import org.springframework.context.annotation.ComponentScan;
import org.springframework.context.annotation.Configuration;

@Configuration
@ComponentScan(basePackages = "com.spring.foodorder")

public class MainApp {

    public static void main(String[] args) {

        ApplicationContext context = new AnnotationConfigApplicationContext(MainApp.class);

        FoodOrderService orderService = context.getBean(FoodOrderService.class);

        orderService.processOrder();

    }

}

```

Case Study 2: Annotation-Based Configuration

Project Title: Smart Home Automation System Configuration

Type: Annotation-based Spring Configuration

Code Implementation

User.java

```
package com.smartHome;

import org.springframework.stereotype.Component;

@Component

public class User {

    private String name = "Murthy";

    private String homeld = "2-130";

    public String getName() {

        return name;

    }

    public String getHomeld() {

        return homeld;

    }

}
```

2.Device.java

```
package com.smartHome;

import org.springframework.stereotype.Component;

@Component

public class Device {

    private String deviceType = "Light";

    private String status = "Off";


    public String getDeviceType() {

        return deviceType;

    }

}
```

```
public String getStatus() {  
    return status;  
}  
  
public void turnOn() {  
    status = "On";  
    System.out.println(deviceType + " is turned ON.");  
}  
}
```

3.AutomationService.java

```
package com.smartHome;  
  
import org.springframework.beans.factory.annotation.Autowired;  
import org.springframework.stereotype.Service;  
  
@Service  
public class AutomationService {  
    @Autowired  
    private User user;  
  
    @Autowired  
    private Device device;  
  
    public void controlDevice() {  
        System.out.println("User " + user.getName() + " is controlling the device.");  
        device.turnOn();  
    }  
}
```

4.AppConfig.java

```
package com.smartHome;

import org.springframework.context.annotation.ComponentScan;
import org.springframework.context.annotation.Configuration;

@Configuration
@ComponentScan(basePackages = "com.smartHome")

public class AppConfig {

}
```

5.MainApp.java

```
package com.smartHome;

import org.springframework.context.ApplicationContext;
import org.springframework.context.annotation.AnnotationConfigApplicationContext;

public class MainApp {

    public static void main(String[] args) {

        ApplicationContext context = new AnnotationConfigApplicationContext(AppConfig.class);

        AutomationService service = context.getBean(AutomationService.class);

        service.controlDevice();

    }

}
```