

## Restaurant Menu Service

Description

### Objective:

To work with `@RestController` and http methods

### Concept Explanation :

1. The **RestController** blends `@Controller` and `@ResponseBody`, turning classes into efficient web controllers that directly handle HTTP requests and quickly return data, skipping over traditional views.
2. The HTTP GET method is the go-to choice for safely retrieving data. It's like the 'read' function of the web, pulling information without altering any server data, perfect for things like viewing web pages or getting search results.

### Concept Implementation:

1. In the REST Controller, named **MenuRestController** for Restaurant App, we should map the endpoint **/menu** to the annotation corresponding to the request, as it is typically used for fetching data.

### Restaurant Menu REST Controller App

Create a **MenuRestController** that should render the service of retrieving the full menu list from a restaurant.

MenuRestController is created with the following service:

**Request URL --> /menu** : This service should invoke the **getMenuList()** method of the class and return the list of menu items.

### Note:

- Restaurant class is already provided as part of the code skeleton to return the list of Menu Items. This Restaurant class should be used inside the MenuRestController - `getAllMenuItems()` to return the list of menu items as JSON.
  - Partial Maven solution for the same is provided. Do not alter the `className/packageName/MethodName`.
  - You can add new methods/attributes/classes if required.
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### RestaurantApp/pom.xml

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
3     xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 https://maven.apache.org/xsd/maven-
4.0.0.xsd">
4     <modelVersion>4.0.0</modelVersion>
5     <parent>
6         <groupId>org.springframework.boot</groupId>
7         <artifactId>spring-boot-starter-parent</artifactId>
8         <version>3.0.6</version>
9         <relativePath/> <!-- lookup parent from repository -->
10    </parent>
11    <groupId>com.example.demo</groupId>
12    <artifactId>RestaurantApp</artifactId>
13    <version>0.0.1-SNAPSHOT</version>
14    <name>RestaurantApp</name>
15    <description>RestaurantApp</description>
16    <properties>
17        <java.version>17</java.version>
18    </properties>
19    <dependencies>
20
21        <dependency>
22            <groupId>org.springframework.boot</groupId>
23            <artifactId>spring-boot-starter-web</artifactId>
24        </dependency>
25        <dependency>
26            <groupId>org.springframework.boot</groupId>
27            <artifactId>spring-boot-starter-test</artifactId>
28            <scope>test</scope>
29        </dependency>
30
31        <dependency>
32            <groupId>org.springframework.restdocs</groupId>
33            <artifactId>spring-restdocs-mockmvc</artifactId>
34            <scope>test</scope>
35        </dependency>
36
37        <dependency>
38            <groupId>junit</groupId>
39            <artifactId>junit</artifactId>
40            <version>4.12</version>
41            <scope>test</scope>
42        </dependency>
43    </dependencies>
44
45
46    <build>
47        <plugins>
48
49            <plugin>
50                <groupId>org.springframework.boot</groupId>
51                <artifactId>spring-boot-maven-plugin</artifactId>
52            </plugin>
53        </plugins>
54    </build>
55
```

```
56
57
58 </project>
59
60
```

*RestaurantApp/src/main/java/com/controller/MenuRestController.java*

```
1  package com.controller;
2
3  import java.util.List;
4
5  import com.model.MenuItem;
6
7  import org.springframework.web.bind.annotation.GetMapping;
8
9  import org.springframework.web.bind.annotation.RestController;
10
11 import com.model.*;
12
13 //include the required annotation to make MenuRestController as RestController
14
15 @RestController
16
17 public class MenuRestController {
18
19     @GetMapping("/menu")
20
21     public List<MenuItem> getAllMenuItems()
22
23     {
24
25         Restaurant restaurant=new Restaurant();
26
27         //Include the required business logic to return the list of menu items
28
29         return restaurant.getMenuList();
30
31     }
32
33 }
34
35
```

*RestaurantApp/src/main/java/com/example/demo/MenuRestAppApplication.java*

```
1  package com.example.demo;
2
3  import org.springframework.boot.SpringApplication;
4  import org.springframework.boot.autoconfigure.SpringBootApplication;
5  import org.springframework.context.annotation.ComponentScan;
6
7  @SpringBootApplication
8  @ComponentScan("com.controller")
9  public class MenuRestAppApplication {
10
11     public static void main(String[] args) {
12         SpringApplication.run(MenuRestAppApplication.class, args);
13     }
14
15 }
16
```

*RestaurantApp/src/main/java/com/model/MenuItem.java*

```
1  package com.model;
2
```

```

3 public class MenuItem
4 {
5     private String name;
6     private String cuisine;
7     private double price;
8
9     public MenuItem(String name, String cuisine, double price) {
10         super();
11         this.name = name;
12         this.cuisine = cuisine;
13         this.price = price;
14     }
15
16     public MenuItem() {
17         super();
18     }
19
20     public String getName() {
21         return name;
22     }
23
24     public void setName(String name) {
25         this.name = name;
26     }
27
28     public String getCuisine() {
29         return cuisine;
30     }
31
32     public void setCuisine(String cuisine) {
33         this.cuisine = cuisine;
34     }
35
36     public double getPrice() {
37         return price;
38     }
39
40     public void setPrice(double price) {
41         this.price = price;
42     }
43
44
45
46
47
48
49
50 }

```

RestaurantApp/src/main/java/com/model/Restaurant.java

```

1 package com.model;
2
3 import java.util.ArrayList;
4
5
6 public class Restaurant {
7
8
9
10     private ArrayList<MenuItem> menuList=new ArrayList<MenuItem>();
11
12
13

```

```

14     public ArrayList<MenuItem> getMenuList() {
15         return menuList;
16     }
17
18
19
20     public void setMenuList(ArrayList<MenuItem> menuList) {
21         this.menuList = menuList;
22     }
23
24
25
26     public Restaurant()
27     {
28         MenuItem menuItem1 = new MenuItem("Pizza Margherita", "Italian", 10.99);
29         MenuItem menuItem2 = new MenuItem("Vegan Burger", "American", 8.99);
30         MenuItem menuItem3 = new MenuItem("Sushi Platter", "Japanese", 15.99);
31         menuList.add(menuItem1);
32         menuList.add(menuItem2);
33         menuList.add(menuItem3);
34     }
35
36
37
38
39 }
40
41

```

*RestaurantApp/src/main/resources/application.properties*

```
1 server.port=5055
```

```
2
```

**Grade**

Reviewed on Friday, 1 August 2025, 4:20 PM by Automatic grade

**Grade** 100 / 100