Online Course enrollment System

1. Course.java

package com.enrollment.model;

public class Course {

    private String id;

    private String name;

    public Course() {}

    public Course(String id, String name) {

        this.id = id;

        this.name = name;

    }

    // Getters & Setters

}

---

2. Student.java

package com.enrollment.model;

public class Student {

    private String name;

    private String email;

    private String course;

    // Getters and Setters

}

---

3. CourseController.java

```java
package com.enrollment.controller;

import com.enrollment.model.Course;

import com.enrollment.model.Student;

import org.springframework.stereotype.Controller;

import org.springframework.ui.Model;

import org.springframework.web.bind.annotation.*;

import java.util.*;

@Controller

public class CourseController {


    private List<Course> courseList = Arrays.asList(
            new Course("C101", "Java Basics"),
            new Course("C102", "Spring Framework"),
            new Course("C103", "Web Development")
    );


    @GetMapping("/courses")
    public String showCourses(Model model) {
        model.addAttribute("courses", courseList);
        return "courses";
    }


    @GetMapping("/enroll")
    public String showEnrollForm(Model model) {
        model.addAttribute("student", new Student());
        model.addAttribute("courses", courseList);
```

```java
        return "enroll";

    }


    @PostMapping("/submitEnrollment")

    public String submitEnrollment(@ModelAttribute("student") Student student, Model
model) {

        model.addAttribute("student", student);

        return "success";

    }
}
```

4. AppConfig.java

```java
package com.enrollment.config;

import org.springframework.context.annotation.*;

import org.springframework.web.servlet.config.annotation.*;

import org.springframework.web.servlet.view.*;

@Configuration

@EnableWebMvc

@ComponentScan(basePackages = "com.enrollment")

public class AppConfig implements WebMvcConfigurer {


    @Bean

    public InternalResourceViewResolver resolver() {

        InternalResourceViewResolver resolver = new InternalResourceViewResolver();

        resolver.setPrefix("/WEB-INF/views/");

        resolver.setSuffix(".jsp");

        return resolver;
```

```
        }
    }
```

---

5. web.xml

```xml
<web-app xmlns="http://xmlns.jcp.org/xml/ns/javaee"
        xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
        xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/javaee
        http://xmlns.jcp.org/xml/ns/javaee/web-app_4_0.xsd"
        version="4.0">


    <servlet>
        <servlet-name>dispatcher</servlet-name>
        <servlet-class>org.springframework.web.servlet.DispatcherServlet</servlet-class>
        <init-param>
            <param-name>contextClass</param-name>
            <param-value>

org.springframework.web.context.support.AnnotationConfigWebApplicationContext
            </param-value>
        </init-param>
        <init-param>
            <param-name>contextConfigLocation</param-name>
            <param-value>com.enrollment.config.AppConfig</param-value>
        </init-param>
        <load-on-startup>1</load-on-startup>
    </servlet>
```

```
    <servlet-mapping>

        <servlet-name>dispatcher</servlet-name>

        <url-pattern>/</url-pattern>

    </servlet-mapping>

</web-app>
```

---

6. courses.jsp

```
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>

<html>

<body>

<h2>Available Courses</h2>

<ul>

    <c:forEach var="course" items="${courses}">

        <li>${course.name}</li>

    </c:forEach>

</ul>

<a href="enroll">Enroll Now</a>

</body>

</html>
```

7.enroll.jsp

```
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>

<html>

<body>

<h2>Enrollment Form</h2>

<form action="submitEnrollment" method="post">

    Name: <input type="text" name="name"/><br/>
```

```
    Email: <input type="email" name="email"/><br/>

    Course:

    <select name="course">

        <c:forEach var="course" items="${courses}">

            <option value="${course.name}">${course.name}</option>

        </c:forEach>

    </select><br/>

    <input type="submit" value="Submit"/>

</form>

</body>

</html>
```

8.success.jsp

```
<html>

<body>

<h2>Enrollment Successful!</h2>

<p>Name: ${student.name}</p>

<p>Email: ${student.email}</p>

<p>Enrolled Course: ${student.course}</p>

</body>

</html>
```

---

9. pom.xml

```
<dependencies>

    <dependency>

        <groupId>org.springframework</groupId>

        <artifactId>spring-webmvc</artifactId>

        <version>5.3.33</version> <!-- latest compatible with Java 17 -->
```

```xml
        </dependency>
        <dependency>
            <groupId>javax.servlet</groupId>
            <artifactId>javax.servlet-api</artifactId>
            <version>4.0.1</version>
            <scope>provided</scope>
        </dependency>
        <dependency>
            <groupId>javax.servlet.jsp.jstl</groupId>
            <artifactId>jstl-api</artifactId>
            <version>1.2</version>
        </dependency>
        <dependency>
            <groupId>taglibs</groupId>
            <artifactId>standard</artifactId>
            <version>1.1.2</version>
        </dependency>
    </dependencies>
```