

Day 5

Task 1: Migrate front-end form handling to Spring MVC controllers.

First we have to create html page

```
<!DOCTYPE html>

<html>

<head>

    <meta charset="UTF-8">

    <title>Claim Submission Form</title>

    <link rel="stylesheet" href="styles.css">

</head>

<body>

    <h2>Claim Submission Form</h2>


    <form action="{pageContext.request.contextPath}/submitClaim" method="post">

        <label for="policyNumber">Policy Number:</label>

        <input type="text" id="policyNumber" name="policyNumber" required><br><br>


        <label for="claimAmount">Claim Amount:</label>

        <input type="text" id="claimAmount" name="claimAmount" required><br><br>


        <label for="claimDetails">Claim Details:</label><br>

        <textarea id="claimDetails" name="claimDetails" rows="4" cols="50"
required></textarea><br><br>


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

    </form>


</body>

</html>
```

Now we have to create mvc controller

```
package com.example.controller;
```

```

import org.springframework.stereotype.Controller;
import org.springframework.ui.Model;
import org.springframework.web.bind.annotation.PostMapping;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RequestParam;
@Controller
@RequestMapping("/claim")
public class ClaimController {
    @PostMapping("/submitClaim")
    public String submitClaim(@RequestParam("policyNumber") String policyNumber,
                              @RequestParam("claimAmount") Double claimAmount,
                              @RequestParam("claimDetails") String claimDetails,
                              Model model) {
        model.addAttribute("successMessage", "Claim submitted successfully!");
        return "claimConfirmation";
    }
}

```

Task 2: Configure Thymeleaf as the view layer for dynamic content rendering in Spring MVC.

First add thymeleaf dependency

```
package com.example.config;
```

```

import org.springframework.context.annotation.Bean;
import org.springframework.context.annotation.Configuration;
import org.springframework.web.servlet.ViewResolver;
import org.springframework.web.servlet.config.annotation.EnableWebMvc;
import org.springframework.web.servlet.config.annotation.WebMvcConfigurer;
import org.springframework.web.servlet.view.InternalResourceViewResolver;

```

```
import org.thymeleaf.spring5.SpringTemplateEngine;
import org.thymeleaf.spring5.view.ThymeleafViewResolver;
import org.thymeleaf.templateengine.TemplateEngine;
import org.thymeleaf.templateresolver.ClassLoaderTemplateResolver;
```

@Configuration

@EnableWebMvc

```
public class WebConfig implements WebMvcConfigurer {
```

@Bean

```
public ClassLoaderTemplateResolver templateResolver() {
    ClassLoaderTemplateResolver templateResolver = new ClassLoaderTemplateResolver();
    templateResolver.setPrefix("/WEB-INF/views/");
    templateResolver.setSuffix(".html");
    templateResolver.setTemplateMode(TemplateEngine.HTML);
    return templateResolver;
}
```

@Bean

```
public SpringTemplateEngine templateEngine() {
    SpringTemplateEngine templateEngine = new SpringTemplateEngine();
    templateEngine.setTemplateResolver(templateResolver());
    return templateEngine;
}
```

@Bean

```
public ViewResolver thymeleafViewResolver() {
    ThymeleafViewResolver resolver = new ThymeleafViewResolver();
    resolver.setTemplateEngine(templateEngine());
    resolver.setCharacterEncoding("UTF-8");
    return resolver;
}
```

```
}  
}
```

Task 3: Implement data binding and server-side validation within the Spring MVC framework.

```
package com.example.model;  
  
import javax.validation.constraints.NotBlank;  
import javax.validation.constraints.NotNull;  
  
public class Claim {  
    @NotBlank(message = "Policy number is required")  
    private String policyNumber;  
    @NotNull(message = "Claim amount is required")  
    private Double claimAmount;  
    @NotBlank(message = "Claim details are required")  
    private String claimDetails;  
    public String getPolicyNumber() {  
        return policyNumber;  
    }  
    public void setPolicyNumber(String policyNumber) {  
        this.policyNumber = policyNumber;  
    }  
    public Double getClaimAmount() {  
        return claimAmount;  
    }  
    public void setClaimAmount(Double claimAmount) {  
        this.claimAmount = claimAmount;  
    }  
    public String getClaimDetails() {  
        return claimDetails;  
    }  
    public void setClaimDetails(String claimDetails) {
```

```
        this.claimDetails = claimDetails;  
    }  
}
```