

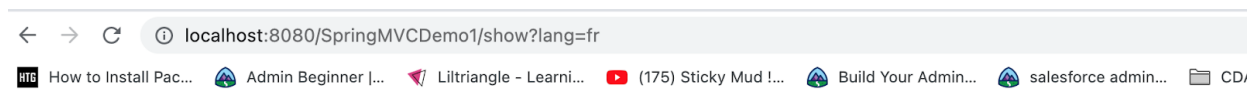
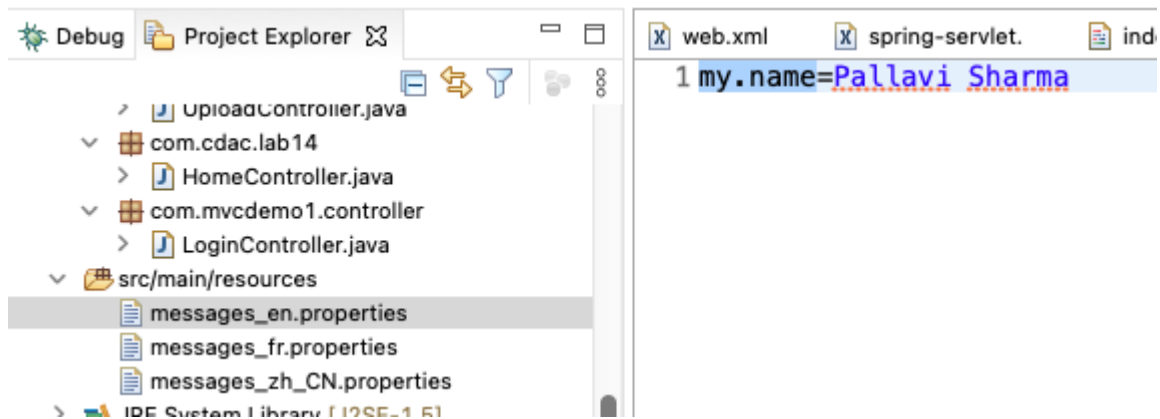
07-01-2023

Lab Assignment 14

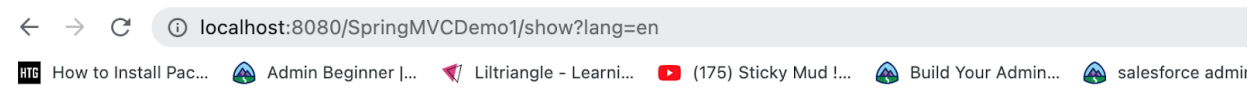
Q1 Create a webpage to print your name in English, French and Chinese.

```
1 package com.cdac.lab14;
2
3 import org.springframework.stereotype.Controller;
4 import org.springframework.web.bind.annotation.RequestMapping;
5
6 @Controller
7 public class HomeController {
8
9     @RequestMapping("/show")
10    public String home() {
11        return "index14";
12    }
13 }
```

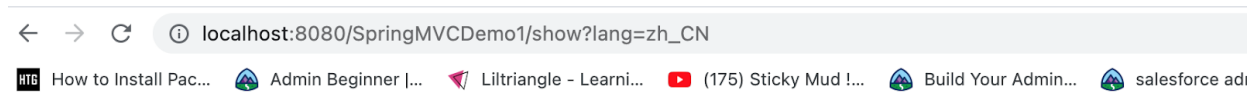
```
web.xml  spring-servlet.  index.jsp  index14.jsp  HomeController.  LoginController  LoginController
1 <@ page language="java" contentType="text/html; charset=UTF-8"
2   pageEncoding="ISO-8859-1"%>
3 <@ taglib prefix="spring" uri="http://www.springframework.org/tags"%>
4 <!DOCTYPE html>
5 <html>
6 <head>
7   <meta charset="ISO-8859-1">
8   <title>Info Page</title>
9   <meta name="viewport" content="width=device-width, initial-scale=1">
10  <link rel="stylesheet"
11    href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css">
12  <script
13    src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>
14  <script
15    src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></script>
16 </head>
17 <body>
18   <div class="container">
19     <h2 style="color: slateblue; text-align: center">
20       <spring:message code="my.name" text="Pallavi Sharma" />
21     </h2>
22   </div>
23 </body>
24 </html>
```



Aimée Sharma

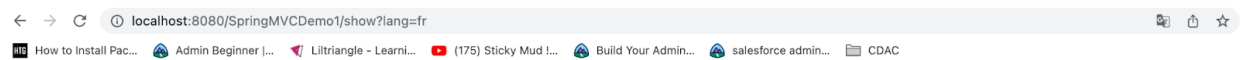


Pallavi Sharma



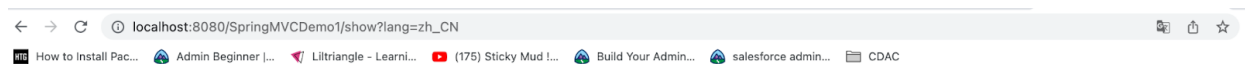
帕拉维夏尔马

Q2 .Using Internationalization(i18n) in spring MVC,Make an application to show employee details [Employee ID,Firstname, Last name etc..That ready to support various languages.



Tous les employés du système

Identifiant de employé	première	nom de famille
------------------------	----------	----------------



系统中的所有员工

员工ID	名字	姓
------	----	---

spring-servlet. index14.jsp messages_en.pro messages_fr.pro messages_zh_CN. H

```

1 package com.cdac.lab14;
2
3 import org.springframework.stereotype.Controller;
4 import org.springframework.web.bind.annotation.RequestMapping;
5
6 @Controller
7 public class HomeController {
8
9     @RequestMapping("/show")
10    public String home() {
11        return "index14";
12    }
13 }

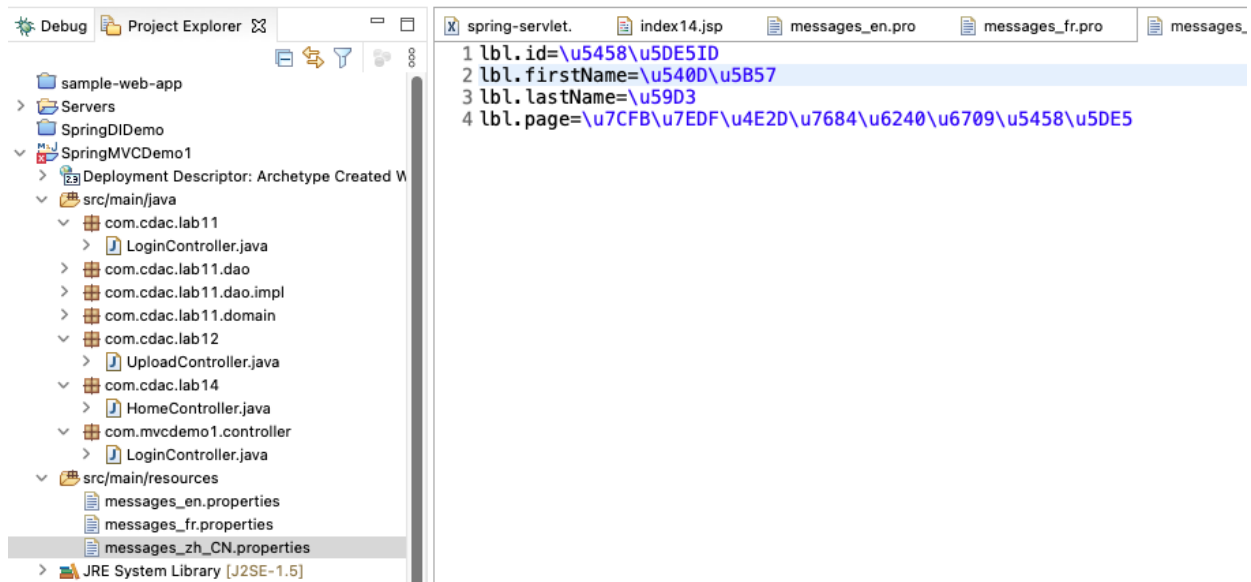
```

spring-servlet. index14.jsp messages_en.pro messages_fr.pro messages_zh_CN. HomeController. Login Demo

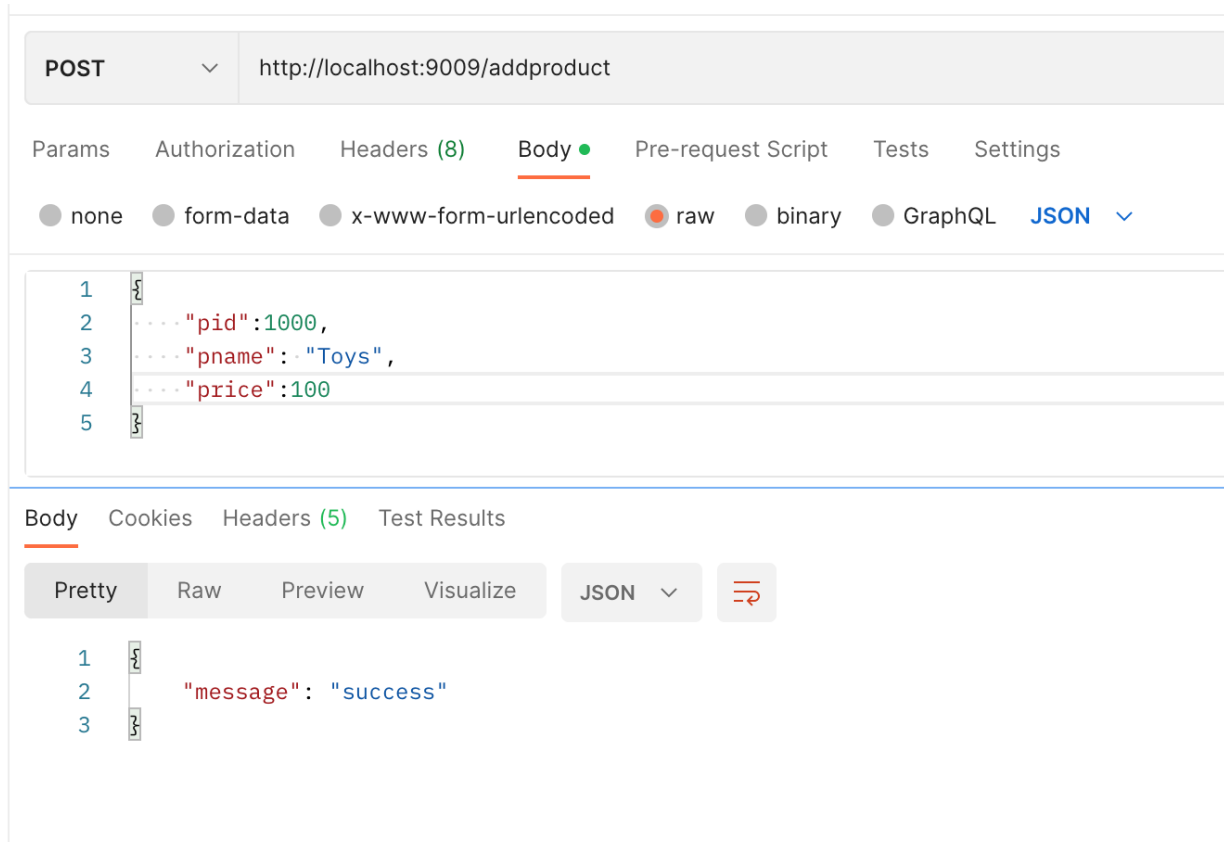
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1 <?@ page language="java" contentType="text/html; charset=UTF-8"
2   pageEncoding="ISO-8859-1"%>
3 <%@ taglib prefix="spring" uri="http://www.springframework.org/tags" %>
4 <!DOCTYPE html>
5 <html>
6 <head>
7   <meta charset="ISO-8859-1">
8   <title>Info Page</title>
9   <meta name="viewport" content="width=device-width, initial-scale=1">
10  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css">
11  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>
12  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></script>
13 </head>
14 <body>
15   <div class="container">
16     <h2 style="color:slateblue;text-align:center">
17       <spring:message code="lbl.page" text="All Employees in System" />
18     </h2>
19
20     <table style="color:tomato"
21       class="table table-bordered">
22       <tr>
23         <th><spring:message code="lbl.id" text="Employee Id" /></th>
24         <th><spring:message code="lbl.firstName" text="First Name" /></th>
25         <th><spring:message code="lbl.lastName" text="Last Name" /></th>
26       </tr>
27     </table>
28   </div>
29 </body>
30 </html>

```



Q3.Using AOP in spring boot to Create a product table with [Product id ,name and Price] do the operations like add ,search, update and delete .[it include AOP aspects and AOP advice methods]



GET

▼

http://localhost:9009/getallproducts

ParamsAuthorizationHeaders (8)Body ●Pre-request ScriptTestsSettings

● none

● form-data

● x-www-form-urlencoded

● raw

● binary

● GraphQL

JSON

1

5

BodyCookiesHeaders (5)Test Results

PrettyRawPreviewVisualize

JSON ▼

1

2

3

4

5

6

7

[

{

"pid": 1000,

"pname": "Toys",

"price": 100

}

]

GET

▼

http://localhost:9009/searchproduct?id=1001

Params ●AuthorizationHeaders (8)Body ●Pre-request ScriptTestsSettings

● none

● form-data

● x-www-form-urlencoded

● raw

● binary

● GraphQL

JSON

1

5

BodyCookiesHeaders (5)Test Results

PrettyRawPreviewVisualize

JSON ▼

1

2

3

4

5

{

"pid": 1001,

"pname": "Cosmetic",

"price": 500

}

http://localhost:9009/deleteproduct/1000

DELETE



http://localhost:9009/deleteproduct/1000

Params

Authorization

Headers (8)

Body ●

Pre-request Script

Tests



none



form-data



x-www-form-urlencoded



raw



binary



GraphQL

1



Body

Cookies

Headers (5)

Test Results

Pretty

Raw

Preview

Visualize

JSON



1



2

"message": "success"

3



```

1 package com.springbootdemo.controller;
2
3 import java.util.HashMap;
4
5 @RestController
6 public class ProductController {
7
8     @Autowired
9     private ProductDao daoImpl;
10
11     /*
12     * url : http://localhost:9009/getallproducts
13     * method : GET
14     */
15     @GetMapping("/getallproducts")
16     public List<Product> getAll() {
17         List<Product> lst = daoImpl.getAllProducts();
18         return lst;
19     }
20
21     /*
22     * url : http://localhost:9009/searchproduct?id=4
23     * method : GET
24     */
25     @GetMapping("/searchproduct")
26     public Product searchProduct(@RequestParam("id") String productId) {
27
28         int prdId = Integer.parseInt(productId);
29
30         Product product = daoImpl.searchProduct(prdId);
31
32         return product;
33     }
34
35     /*
36     * url : http://localhost:9009/addproduct
37     * method : POST
38     * request header : Content-Type : application/json
39     * json to be sent : {
40     *     "pid" : 1233,
41     *     "pname" : "pendrive",
42     *     "price" : 450
43     * }
44     */
45     @PostMapping("/addproduct")
46     public HashMap<String, String> addProduct(@RequestBody Product prd) {
47
48         HashMap<String, String> hmap = new HashMap<>();
49
50         if(daoImpl.addNewProduct(prd)) {
51             hmap.put("message", "success");
52         }
53         else {
54             hmap.put("message", "failure");
55         }
56
57         return hmap;
58     }
59
60     /*
61     * url : http://localhost:9009/updateproduct
62     * method : PUT
63     * request header : Content-Type : application/json
64     * json to be sent : {
65     *     "pid" : 16
66     *     "pname" : "kingston",
67     *     "price" : 400
68     * }
69     */
70     @PutMapping("/updateproduct")
71     public HashMap<String, String> updateProduct(@RequestBody Product prd) {
72
73         HashMap<String, String> hmap = new HashMap<>();
74
75         if(daoImpl.updateProduct(prd)) {
76             hmap.put("message", "success");
77         }
78         else {
79             hmap.put("message", "failure");
80         }
81
82         return hmap;
83     }
84
85     /*
86     * url : http://localhost:9009/deleteproduct/16
87     * method : DELETE
88     */
89     @DeleteMapping("/deleteproduct/{id}")
90     public HashMap<String, String> deleteProduct(
91         @PathVariable("id") String prdId) {
92
93         int pid = Integer.parseInt(prdId);
94         HashMap<String, String> hmap = new HashMap<>();
95
96         if(daoImpl.deleteProduct(pid)) {
97             hmap.put("message", "success");
98         }
99         else {
100             hmap.put("message", "failure");
101         }
102
103         return hmap;
104     }
105 }

```



```
1 package com.springbootdemo.daoimpl;
2
3 import java.util.ArrayList;
4
5
6
7
8
9
10
11 @Repository
12 public class ProductDaoImpl implements ProductDao {
13
14     private List<Product> lstProducts = new ArrayList<>();
15
16     @Override
17     public List<Product> getAllProducts() {
18         return lstProducts;
19     }
20
21     @Override
22     public Product searchProduct(int id) {
23         Product product = null;
24
25         for(Product prd : lstProducts)
26         {
27             if(prd.getPid() == id) {
28                 return prd;
29             }
30         }
31
32         throw new RuntimeException("product not found");
33     }
34
35     @Override
36     public boolean addNewProduct(Product product) {
37         lstProducts.add(product);
38         return true;
39     }
40
41     @Override
42     public boolean updateProduct(Product product) {
43
44         for(Product prd : lstProducts)
45         {
46             if(prd.getPid() == product.getPid()) {
47                 int index = lstProducts.indexOf(prd);
48                 lstProducts.set(index, product);
49                 return true;
50             }
51         }
52
53         return false;
54     }
55
56     @Override
57     public boolean deleteProduct(int id) {
58         return lstProducts.removeIf(item -> item.getPid() == id);
59     }
60 }
61
62
```

```

ProductController.java ProductDaoImpl.java ProductAfterAspect.java X ProductBeforeAspect.java Product
1 package com.springbootaopdemo.aspect;
2
3 import org.aspectj.lang.JoinPoint;
4
5
6
7
8 @Aspect
9 @Component
10 public class ProductAfterAspect {
11
12     @After(value =
13         "execution (* com.springbootaopdemo.daoimpl.ProductDaoImpl.addNewProduct(*))")
14     public void afterAdvice(JoinPoint jp) {
15         System.out.println("after Advice called after the method : " +
16             jp.getSignature());
17     }
18
19     @AfterReturning(value =
20         "execution (* com.springbootaopdemo.daoimpl.ProductDaoImpl.addNewProduct(*))",
21         returning = "status")
22     public void afterReturning(boolean status) {
23         System.out.println("after Advice called ");
24         System.out.println("the method returned : " + status);
25     }
26
27     @AfterThrowing(value =
28         "execution (* com.springbootaopdemo.daoimpl.ProductDaoImpl.searchProduct(*))",
29         throwing = "issue")
30     public void afterThrowing(Exception issue) {
31         System.out.println("after throwing advice executed after below exception was"
32             + " thrown : " + issue);
33     }
34 }
35
36
37
38

```

```

ProductController.java ProductDaoImpl.java ProductAfterAspect.java ProductBeforeAspect.java X Product
1 package com.springbootaopdemo.aspect;
2
3 import org.aspectj.lang.JoinPoint;
4
5
6
7
8 @Aspect
9 @Component
10 public class ProductBeforeAspect {
11
12     @Before(value =
13         "execution (* com.springbootaopdemo.daoimpl.ProductDaoImpl.getAllProducts())")
14     public void beforeAdvice(JoinPoint jp) {
15         System.out.println("before advice has been called before the method : "
16             + jp.getSignature());
17     }
18 }
19
20

```

1 package com.springbootaopdemo.aspect;
2
3 import org.aspectj.lang.JoinPoint;
4
5
6
7
8
9
10 @Aspect
11 @Component
12 public class ProductAfterAspect {
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com.springboot
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Markers Properties Servers Snippets Terminal Console X Progress

SpringBootAopDemo - SpringBootAopDemoApplication [Spring Boot App] /Library/Internet Plug-Ins/JavaAppletPlugin.plugin/Contents/Home/bin/java (08-Jan-2023, 12:40:43 pm) [pid: 90403]
2023-01-08 12:41:12.265 INFO 90403 --- [restartedMain] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port(s): 9009 (http) with context path ''
2023-01-08 12:41:12.276 INFO 90403 --- [restartedMain] c.s.SpringBootAopDemoApplication : Started SpringBootAopDemoApplication in 22.103 seconds (JVM runni
2023-01-08 12:42:11.329 INFO 90403 --- [nio-9009-exec-1] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring DispatcherServlet 'dispatcherServlet'
2023-01-08 12:42:11.329 INFO 90403 --- [nio-9009-exec-1] o.s.web.servlet.DispatcherServlet : Initializing Servlet 'dispatcherServlet'
2023-01-08 12:42:11.330 INFO 90403 --- [nio-9009-exec-1] o.s.web.servlet.DispatcherServlet : Completed initialization in 1 ms
before advice has been called before the method : List com.springbootaopdemo.daoimpl.ProductDaoImpl.getAllProducts()
after Advice called
the method returned : true
after Advice called after the method : boolean com.springbootaopdemo.daoimpl.ProductDaoImpl.addNewProduct(Product)
before advice has been called before the method : List com.springbootaopdemo.daoimpl.ProductDaoImpl.getAllProducts()
after Advice called
the method returned : true
after Advice called after the method : boolean com.springbootaopdemo.daoimpl.ProductDaoImpl.addNewProduct(Product)
before advice has been called before the method : List com.springbootaopdemo.daoimpl.ProductDaoImpl.getAllProducts()