

Date : 22/02/2021
Spring Boot 9AM
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Web MVC : Forms (HTML Form)

*) ModelAttribute | HTML Form Data:

Form are mostly used concept is realtime application.

Form a Collection of Inputs where collects data from EndUser.

ex: Register Form, Login Form, Feedback Form,
Comment Form, Enquery Form, Payment Forms...etc

--Servlets---

Input : [_____] <input type="text" name="ename" />

Read:

String ename = request.getParameter("ename");

*) If Form contain n inputs then n time we should write getParam code.

*) In WEB MVC, when we click on submit FORM DATA is CONVERTED to
OBJECT ,

by Spring Container, using below steps.

- a. Creating Object (using default const)
- b. Reading data from FORM INPUT (req.getParam)
- c. Parse Data if required (Integer.parseInt)
- d. set data to object (setEid(__))

*) For this Programmer has to define one class (Model Class)

- a. Define one public class with any name
- b. Define Default constrcutor
- c. Define variables with set/get method
(count ?? No. Form Inputs == No.Of variable in class)
- d.*** Variable name must match with Form Input name attribute
<input type="" name="VariableName" ...
<select name="VariableName" ...
<textarea name="VariableName" ...

*)Finally, Programmer can read object in Controller From Spring
container

using below code as Request Method Parameter.

Q) @ModelAttribute works same as @Autowired what is the differece?

A) An object created at runtime based on end user data (FORM DATA)
is called as @ModelAttribute. (for web app, only FORMS)

An object created while starting application using static data/props
(like DB Connection, JPA EntityManager..etc) To read those into code
use @Autowired.

code

Name: SpringBoot2MvcBasicForm

Dep : Spring web, Lombok

1. Model class

```
package in.nareshit.raghu.model;
```

```
import lombok.Data;
```

```
@Data
```

```
public class Employee {
```

```
    private Integer empId;
```

```
    private String empName;
```

```
    private Double empSal;
```

```
}
```

2. Controller class

```
package in.nareshit.raghu.controller;
```

```
import org.springframework.stereotype.Controller;
```

```
import org.springframework.ui.Model;
```

```
import org.springframework.web.bind.annotation.GetMapping;
```

```
import org.springframework.web.bind.annotation.ModelAttribute;
```

```
import org.springframework.web.bind.annotation.PostMapping;
```

```
import in.nareshit.raghu.model.Employee;
```

```
@Controller
```

```
public class EmployeeController {
```

```
    //1. Show Form
```

```
    @GetMapping("/register")
```

```
    public String showReg() {
```

```
        return "EmpReg";
```

```
    }
```

```
    //2. Read Form Data (on submit)
```

```
    //@RequestMapping(value = "/save", method = RequestMethod.POST)
```

```
    @PostMapping("/save")
```

```
    public String readData(
```

```
        @ModelAttribute("employee") Employee emp,
```

```
        Model model
```

```
    )
```

```
    {
```

```
        System.out.println("Data is => " + emp);
```

```
        model.addAttribute("employee", emp);
```

```
        return "EmpData";
```

```
    }
```

```
}
```

3. UI Pages:

```
-- EmpReg.jsp-----
<html> <body>
<h3>WELCOME TO EMPLOYEE REGISTER PAGE!</h3>
<form action="save" method="POST">
<pre>
ID   : <input type="text" name="empId"/>
NAME : <input type="text" name="empName"/>
SAL  : <input type="text" name="empSal"/>
      <input type="submit" value="Create"/>
</pre>
</form> </body> </html>
-----
```

```
-- EmpData.jsp---
<html>
<body>
<h3>
FORM DATA IS : ${employee}
</h3>
</body>
</html>
```

```
4. application.properties
server.port=9898
spring.mvc.view.prefix=/WEB-INF/pages/
spring.mvc.view.suffix=.jsp
```

```
5. Run Application Enter URL
Ex:
http://localhost:9898/register
```

Fill Data and click on submit.

```
-----
****) Note:
If FORM INPUT is Checkbox/Multi-Select DropDown

then define collection(Set/List) variable in Model class
```

```
--code#2-----
```

```
1. EmpReg.jsp
<html>
<body>
<h3>WELCOME TO EMPLOYEE REGISTER PAGE!</h3>
<form action="save" method="POST">
<pre>
ID   : <input type="text" name="empId"/>
NAME : <input type="text" name="empName"/>
SAL  : <input type="text" name="empSal"/>
```

```
GENDER:
      <input type="radio" name="empGen" value="Male"> Male
      <input type="radio" name="empGen" value="Female"> Female
```

```
PROJECT:
      <select name="empPrj">
        <option value="">-SELECT-</option>
```

```

        <option value="NIT">NIT</option>
        <option value="HTC">HTC</option>
        <option value="ORCL">ORCL</option>
    </select>

    ADDRESS:
        <textarea name="empAddr"></textarea>

    LANGUAGES:
        <input type="checkbox" name="empLangs" value="ENG"> ENG
        <input type="checkbox" name="empLangs" value="HIN"> HIN
        <input type="checkbox" name="empLangs" value="TEL"> TEL
        <input type="checkbox" name="empLangs" value="KAN"> KAN

    VENDORS:
        <select name="empVendors" multiple>
            <option value="R-Com">R-Com</option>
            <option value="PEGGATE">PEGGATE</option>
            <option value="JONSON">JONSON</option>
            <option value="LandT">LandT</option>
        </select>

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

</pre>
</form>
</body>
</html>

```

2. Model class

```

package in.nareshit.raghu.model;

import java.util.List;

import lombok.Data;

@Data
public class Employee {

    private Integer empId;
    private String empName;
    private Double empSal;
    private String empGen;
    private String empPrj;
    private String empAddr;

    private List<String> empLangs;
    private List<String> empVendors;
}

```

```

--Task-----
Student Register Form
SID
SNAME
SFEE
GENDER [Radio button]

```

ADDRESS [text area]
Mobile [text]
Email [text]
COURSES [DropDown]
SLOTS [checkbox 9AM, 11AM, 7AM, 6PM, 8PM, 2PM]
CERTIFACTES [Multi-select DropDown]
[OCPJP, OCWCD, MSDI, SAA-C02]
[Submit button]

Good Package:
ReactJS + Spring Boot + AWS -- SAA-C02