Backend and Database Development

13 classes

Day 10 : May 16 2024

Java Technologies

MVC : Model View Controller

In Course 2 : After Servlet and JSP you need to develop course 2 end project with MVC style.

In Course 3 : Spring Framework and Spring boot

Using spring boot we learn how to create rest api those rest api connected database using jdbc or orm or spring data etc.

Using fetch function or axios module you called some rest api.

After course3 using spring boot we will learn how to create backend technologies with database mysql

Course 1 : react with redux with axios

React js using axios they can communicate with spring rest api with database mysql

Course 4 you will learn how to deploy this application using docker with ci and cd tool ie Jenkins on AWS ec2 instance.

Limitation of JSP

1. When we run jsp program internally it convert to servlet. So performance wise JSP is slower than servlet. Converting jsp to servlet is known as page translation.
2. If we write any business logic or database in jsp. It not secure.
3. We can’t do re-usability of jsp code. We can include or forward whole jsp page. But we can use part of the code from the jsp page.

While developing any web application using java (jee) technologies we use servlet and jsp both together.

MVC : Model View Controller : MVC is type of architecture. According to architecture we need to divide our code base upon functionality which help to achieve loosely couple.

View ----🡪 HTML(static contents) / JSP (dynamic contents)

Controller -🡪 Servlet is controller

Model -🡪 JavaBean, Service class , Dao class and resource class etc.

CSS or bootstrap for validation we can use html5 or javascript

Login.jsp --🡪(View)-----🡪LoginController (doPost methods) --🡪

doPost method

receive value from form

set those values to java bean class

create the service class object and pass the value to service method

LoginBean class

Which contains

Variable and setter and getter method

This class object is use to pass from one class to another class as well as this class map to table.

LoginService --🡪 LoginDao resource class

Inside this class providing

We do business logic using jdbc we database connection

If condition true then check username taken care by resource

We can call dao method and password from database

create database ebank;

create table login(emailid varchar(30), password varchar(30), typeofuser enum('manager','customer'));

alter table login modify emailid varchar(30) primary key;

Difference between RequestDispatcher forward method and response.sendRedirect

Output wise both we can see target page.

But in RequestDispatcher forward method request doesn’t destroy means still we are in old request.

Using request dispatcher forward method we can navigate within same application.

response.sendRedirect() new request regenerated means url change.

Using sendRedirect we can navigate within a same application as well as other application.

JSP provided implicit object as session. The object name must session. It is like a HttpSession object.

Login table -🡪emaiid pk , password, typeofuser

Account -🡪 accno(pk) auto increment, emailid (FK), amount -🡪 initial amount , 1000

create table account(accno int primary key auto\_increment,

emailid varchar(30),

amount float,

foreign key(emailid) references login(emailid));

create table transactioninfo(

tid int primary key auto\_increment,

emailid varchar(30),

typeoftransaction varchar(30),

amount float,

dateandtime date,

foreign key(emailid) references login(emailid));