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TEA 17
Practical No : 6

Aim : Jsp , servlet & mysql (Backend)

Problem statement :
1) Design & build student login page using JSP s.
   servlet & mysql
2) Design & Build employee login page using JSP
   servlet & mysql

Theory :
① Java server Pages :-
   - It is a server side programming technology i.e
     used to create dynamic web-based application
   - JSP have right to use complete Java API's
     including JDBC API to access databases
   - A JSP element is type of Java servlet i.e designed
     accomplished role of user interface for a java
     web appln
   - using JSP, you can collect i/p from uses through webpag
     forms current records from a db

② Why we need JSP :-

JSP is used for design dynamic web page & servlet is used to code the logic i.e present in MVC architect. servlet is controller & JSP Preview

③ Architecture of JSP :-
- The req./response part of JSP defined in below archit.
- The client initiated req. JSP file using browser
- Web server involves JSP file & interpret JSP file
- produce a java code
- once servlet is created, JSP engine compiles servlet
- Now set servlet class is loaded by container & execute it
- engine sends response back to client

④ Syntax of JSP :
```
declare variables <%. text %.>
// hello. jsp
<html> <head>
<title> JSP file </title> </head>
<body> <%.
out.println ("welcome to JSP class");
%.>
</body> </html>
```

⑤ servlet :
A servlet is a server side programming & written in Java. servlet is a web pages. A Java servlet is a Java Program that extends capabilities of server

⑥ Technology :-   ① JSP & servlet
                   ② IDE - Netbeans.7.0
                   ③ Database - MYSQL

⑦ NetBeans :-
NetBeans is an IDE used for quickly & easily developing Java desktop, mobile & web appln as well as HTML5 appln, HTML, JS & CSS

⑧ MySQL :- It is freely available open source relational DB management system. It uses SQL

⑨ Design :-
1. Design HTML & JSP file with extension of .html & .Jsp
2. Write DB connection page using servlet
3. Set mysql username, password & DB name in db connection page
4. Start Tomcat server with port no.
5. Open browser & type localhost : 8084

⑩ Test cases :
Manual testing is used validate fields like username, password, mob.no & emailid's of user entered by user with db

Conclusion :
Hence, we have performed dynamic web appln using JSP, servlet & mysql