

Assignment: Servlets

Overview:

This assignment has eight exercises, ranging between 15-45 minutes. You are expected to complete the course/ reference reading before attempting the exercise.

Learning Objective: This assignment has eight exercises. On completion of these you will be able to implement a Servlet program.

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| S.No | Exercise | Description | Exception |
|------|---|---|--|
| 1 | Develop a web application for online shopping | This exercise is to develop a web application using servlets. | After completion of this exercise, participate will be able to understand how to fetch the data from html and data base and display it in Servlets |
| 2 | Develop a web application for online shopping | This exercise is to develop a web application using servlets. | After completion of this exercise, participate will be able to maintain the session across various pages |

Servlets

Question: 1

Exercise Objective(s): understand how to fetch the data from html and data base and display it in Servlets

Exercise: Develop a web application where a customer can use this application by registering themselves into the site. Once they have registered they can login to the site and start their Shopping.

- Create an index page (/index.jsp) which provides two options for the user.
- If the user is a registered user, he can login with his username and password.
- LoginCheck.java servlet will check whether the user is registered or not and displays the success message if logged in.
- If not, redirect to the index.jsp page with the error message.
- If the user is a registered user but the password entered is wrong, redirect to the index page with the error message and provide a link for resetting the password.
- On clicking Reset Password link, the request is redirected to reset.jsp.
- This page prompts the user to enter the email id and new password.
- If the entered email id doesn't match with registered user's email id, redirect to the index page with error message.
- Else the password of the user is changed and redirect to the index page with success message. If he is not a registered user, he can register himself in register.jsp
- RegisterUser.java servlet will check whether all the user details are entered according to the constraints mentioned below.

Email should be valid [for eg: xxx@gmail.com].

Mobile Number should be of length 10 and should contain only integers.

The password must be converted into respective ASCII value and stored in the database[for eg: AAB-656566].

All fields are mandatory fields.

Recommended duration: 180 minutes

Solution Guidance (if applicable): Use scriptlet.

Question: 2**Exercise Objective(s):** *Session Tracking*

Exercise: Write a servlet program to get the student details in three different pages for which background colour should be chosen in Index page.

You are very much interested in publishing current events and fun activities in and around your city through weekly magazine to your college friends. There was good response from your readers and the same magazine was passed to their friends and went viral around students community.

You wanted to use this opportunity to expand your network and collect all the interested students information in your personal website. You wanted to provide the facility that users can select different background colors during the registration. Now the steps to be followed are,

Steps:

The registration page spans to three different pages,

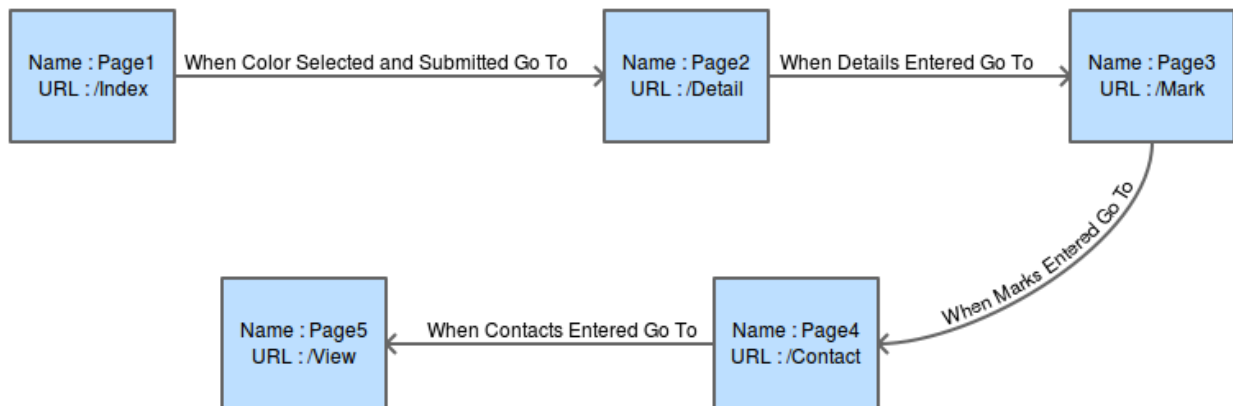
1. Personal information
 1. Name
 2. Age
 3. Gender
2. Curriculum
 1. 10th Mark
 2. 12th Mark
 3. UG Mark
3. Contact Information
 1. E-Mail address
 2. Phone number

In the first page user have to select a color, that color must be the background color for all the remaining pages. This color information is stored in session so that we can use this in multiple pages.

Design Constraints :

1. 1st Page
 1. Color select box should have the name "color"
 2. Add these colour values to the dropdown Pink,Green,Brown,Chocolate,Cyan
2. 2nd Page
 1. Text fields names are "name","age"
 2. Select box name "gender" with options "Male,Female"
3. 3rd Page
 1. Text field name should be "tenthMark"
 2. Text field name should be "twelfthMark"
 3. Text field name should be "ugMark"
4. 4th page
 1. Text field name should be "mail"
 2. Text field name should be "phone"
5. 5th page display all the information
6. From 2nd page to 5th page, all pages should have the selected color displayed as their background. Pages must not contain any hidden fields
7. Use buttons of type 'submit'

Flow:



Recommended duration: 30 minutes

Solution Guidance (if applicable): Use scriptlet.

Guidance (if applicable): Use Session Tracking Techniques.