

## UNIVERSITY INSTITUTE OF ENGINEERING

## **Department of Computer Science & Engineering**

## **Subject Name:**

Subject Code: 20CSP 321

Submitted to: Submitted by:

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UID:20BCS1812

Section:20BCS\_WM-702

Group: A

### **INDEX**

Ex. No	List of Experiments	Date	Condu ct (MM: 12)	Viva (MM: 10)	Record (MM: 8)	Total (MM: 30)	Remarks/ Signature
1.1	Create an application to save the employees information using arrays	16/8/22					
1.2	Design and implement a simple inventory control system for a small video rental store	26/8/22					
1.3	Calculate interest based on the type of the account and the status of the account holder. The rates of interest changes according to the amount (greater than or less than 1 crore), age of account holder (General or Senior citizen) and number of days if the type of account is FD or RD.	6/9/22					
2.1	Create a program to set view of Keys from Java Hashtable.	16/9/22					
2.2	Create a program to show the usage of set of collection interface.	4/10/22					
2.3	Write a program to perform the basic operations like insert delete display and search in list.List contains string object items where the operation are to be performed.	30/9/22					
2.4	Create a menu based java application with the following options I) add an employee ii) display all iii) exit	11/10/22					

3.1	Create a palindrome creator application for making a longest possible palindrome out of given input string	01/11/22			
3.2					
3.3					

# **Experiment 3.1**

Student Name: Rajiv Paul UID: 20BCS1812

Branch: CSE Section/Group: 702A

Semester: 5th Date of Performance: 01/11/2022

Subject Name: PBLJ Lab Subject Code: 20CSP 321

1. **Aim:** 

Create a palindrome creator application for making a longest possible palindrome out of given input string

## 2. Requirements:

#### **Software:**

IntelliJ IDEA, JDK, MacOs, Netbeans

#### Hardware:

Macbook(Laptop)

Ram:4GB(Minimum)

Processor: M1

#### 3. Code:

#### Index.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
<style>
    body {
       background: linear-gradient(45deg, red, blue);
       backgroung-size: cover;
       color: white;
       align-items: center;
    }
    h1{
       text-align:center;
    .fall{
       border: 2px solid orange; background: blue;
       padding: 5px;
       max-width: 500px;
       height: 100px;
       margin: auto;
       font-size: 19px;
    input{
       width: 250px;
    button{
       position: relative;
       left: 170px;
       margin: 10px; width: 60px; height: 30px;
       cursor:pointer;border-radius:5px;
    button:hover{
       color: white;
       background: black;
    }
</style>
</head>
<body>
       <h1>find the Longest Palindromic Substring</h1>
       <form class="fall" name="funcitons"</pre>
action="<%=request.getContextPath()%>/functions" method="post">
            Enter the Palindromic String: <input class="check" type="text"</pre>
name="pal" size="50"><br>
            <button type="submit">Submit
            <button type="reset">Reset/button>
       </form>
       <h1> longest Palindromic SubString <br/>
<%=request.getAttribute("ans") %></h1>
</body>
</html>
```

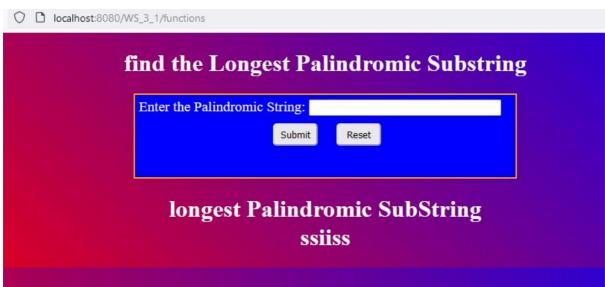
### Functions.java

```
package fun;
import java.io.IOException;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
/**
* Servlet implementation class functions
 */
@WebServlet(name="functions",urlPatterns={"/functions"})
public class functions extends HttpServlet {
      protected void doPost(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
            String a=request.getParameter("pal");
//
            String fun=request.getParameter("fun");
            try {
//
                  System.out.println(a+fun);
                  int n=a.length();
                  String ans;
                  if(n \le 1) {
                        ans=a;
                        request.setAttribute("ans",ans);
request.getRequestDispatcher("index.jsp").forward(request,response);
                  else {
                        int len=1,s=0;
                        int low, high;
```

```
for(int i=1;i<n;i++) {</pre>
                                low=i-1;
                                high=i+1;
                                while(high<n&&a.charAt(high)==a.charAt(i)) {</pre>
                                       high++;
                                }
                                while(high<n&&a.charAt(low)==a.charAt(i)) {</pre>
                                       low++;
                                }
                                while(low>=0 && high<n &&
a.charAt(low)==a.charAt(high)) {
                                       low--;
                                       high++;
                                }
                                int length=high-low-1;
                                if(len<length) {</pre>
                                       len=length;
                                       s=low+1;
                                }
                          }
                          ans=a.substring(s,s+len);
                     request.setAttribute("ans",ans);
request.getRequestDispatcher("index.jsp").forward(request,response);
                   }
             }catch(Exception e) {
                   System.out.println(e);
             }
      }
}
```

## 4. Output:





# **Learning outcomes (What I have learnt):**

- 1. Learnt about the Servlet.
- 2. Learnt about jsp and dynamic web project.
- **3.** Learnt about the tomcat server and its integrations with the java.