1.

**College Class**

import com.opencsv.CSVReader;

import java.io.FileNotFoundException;

import java.io.FileReader;

import java.io.IOException;

import java.util.Scanner;

public class College {

public static String filePath = "D:\\LTI\\CaseStudy1\\colleges.csv";

public static Scanner scanner = new Scanner(System.in);

private static String collegeId, fees, pinCode, collegeName, courseType, city;

private static int choice;

public static void main(String[] args) {

System.out.println("Welcome to University Manager");

selectChoice();

while (choice != 4) {

switch (choice) {

case 1:

System.out.println("Enter college id");

collegeId = College.scanner.next();

boolean flag = true;

try {

CSVReader csvReader = new CSVReader(new FileReader(College.filePath));

String[] nextLine;

while ((nextLine = csvReader.readNext()) != null) {

for (String token : nextLine) {

if (token.equals(collegeId)) {

flag = false;

}

}

}

csvReader.close();

} catch (FileNotFoundException e) {

e.printStackTrace();

} catch (IOException e) {

e.printStackTrace();

}

if (flag) {

System.out.println("Enter college name");

collegeName = scanner.next();

System.out.println("Enter course type");

courseType = scanner.next();

System.out.println("Enter city");

city = scanner.next();

System.out.println("Enter fees");

fees = scanner.next();

System.out.println("Enter pin code");

pinCode = scanner.next();

RegisterCollege.registerCollege(collegeId, collegeName, courseType, city, fees, pinCode);

selectChoice();

}

else {

System.out.println("College id exists! Please change your college id");

choice = 1;

}

break;

case 2:

SearchColleges.searchColleges();

selectChoice();

break;

case 3:

RemoveCollege.removeCollege();

selectChoice();

break;

default:

System.out.println("Please choose the correct option");

System.out.println("1. Enter new college\n2. Search colleges based on city\n3. Remove college\n4. Exit application");

break;

}

}

}

private static void selectChoice() {

System.out.println("Choose any options below");

System.out.println("1. Enter new college\n2. Search colleges based on city\n3. Remove college\n4. Exit application\n");

choice = scanner.nextInt();

}

}

**RegisterCollege Class**

import com.opencsv.CSVReader;

import com.opencsv.CSVWriter;

import java.io.FileWriter;

import java.io.IOException;

public class RegisterCollege {

public static void registerCollege(String collegeId, String collegeName, String courseType, String city, String fees, String pinCode) {

String[] college = {collegeId, collegeName, courseType, city, fees, pinCode};

try {

CSVWriter csvWriter = new CSVWriter(new FileWriter(College.filePath, true));

csvWriter.writeNext(college);

csvWriter.flush();

csvWriter.close();

System.out.println("Data entered successfully!");

} catch (IOException e) {

e.printStackTrace();

}

}

}

import com.opencsv.CSVReader;

import com.opencsv.CSVWriter;

**RemoveCollege Class**

import java.io.FileNotFoundException;

import java.io.FileReader;

import java.io.FileWriter;

import java.io.IOException;

import java.util.ArrayList;

import java.util.List;

public class RemoveCollege {

public static void removeCollege() {

System.out.println("Enter college id");

String id = College.scanner.next();

try {

CSVReader csvReader = new CSVReader(new FileReader(College.filePath));

String[] nextLine;

List<String[]> allColleges = new ArrayList<>();

int rowIndexToDelete = -1;

int rowIndex = 0;

while ((nextLine = csvReader.readNext()) != null) {

allColleges.add(nextLine);

for (String token : nextLine) {

if (token.equals(id)) {

rowIndexToDelete = rowIndex;

}

}

rowIndex++;

}

csvReader.close();

if (rowIndexToDelete != -1) {

allColleges.remove(rowIndexToDelete);

CSVWriter csvWriter = new CSVWriter(new FileWriter(College.filePath));

csvWriter.writeAll(allColleges);

csvWriter.close();

System.out.println("College removed!");

} else if (rowIndexToDelete == -1) {

System.out.println("College id not found");

}

} catch (FileNotFoundException e) {

e.printStackTrace();

} catch (IOException e) {

e.printStackTrace();

}

}

}

**SearchColleges Class**

import com.opencsv.CSVReader;

import java.io.FileNotFoundException;

import java.io.FileReader;

import java.io.IOException;

import java.util.ArrayList;

import java.util.List;

public class SearchColleges {

public static void searchColleges() {

System.out.println("Enter city");

String searchCity = College.scanner.next();

System.out.println("Enter course type");

String searchCourseType = College.scanner.next();

String[] nextLine;

List<String[]> searchResult = new ArrayList<>();

try {

CSVReader csvReader = new CSVReader(new FileReader(College.filePath));

while ((nextLine = csvReader.readNext()) != null) {

int flag = 0;

for (String token : nextLine) {

if (token.equals(searchCity) || token.equals(searchCourseType)) {

flag++;

}

}

if (flag == 2) {

searchResult.add(nextLine);

}

}

csvReader.close();

if (searchResult.isEmpty()) {

System.out.println("No colleges found");

} else {

for (String[] result : searchResult) {

for (String token : result) {

System.out.print(token + "\t\t");

}

System.out.println();

}

}

} catch (FileNotFoundException e) {

e.printStackTrace();

} catch (IOException e) {

e.printStackTrace();

}

}

}

Index.html

2.

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Document</title>

</head>

<body onload="checkCookie()">

<p id="error-message" style="color: red;"></p>

<form name="loginform" onsubmit="return validateForm()" action="./welcome.html" method="GET">

<label>User name</label>

<input type="text" name="usr" placeholder="username"></br>

<label>Password</label>

<input type="password" name="pword" placeholder="password"></br>

<input type="checkbox" id="checkbox" name="checkbox"/>

<label>Remember me</label></br>

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

</form>

<script src="./script.js"></script>

</body>

</html>

**Welcome.html**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Document</title>

</head>

<body>

<h1>Welcome</h1>

</body>

</html>

**Script.js**

function validateForm() {

var un = document.loginform.usr.value;

var pw = document.loginform.pword.value;

var checkbox = document.getElementById("checkbox").checked;

var username = "LTI";

var password = "123";

if ((un == username) && (pw == password)) {

alert ("Login was successful");

if (checkbox) {

setCookie("username", un, 1);

setCookie("password", pw, 1);

}

return true;

}

else {

alert ("Login was unsuccessfull.............");

document.getElementById("error-message").innerHTML = "Incorrect Username/Password invaild!";

return false;

}

}

function checkCookie() {

var usernameCookie = getCookie("username");

var passwordCookie = getCookie("password");

if (usernameCookie != "" && passwordCookie != "") {

if (usernameCookie == "LTI" && passwordCookie == "123") {

window.location = "welcome.html";

}

}

}

function setCookie(cname, cvalue, exdays) {

var d = new Date();

d.setTime(d.getTime() + (exdays\*24\*60\*60\*1000));

var expires = "expires="+ d.toUTCString();

document.cookie = cname + "=" + cvalue + ";" + expires + ";path=/";

}

function getCookie(cname) {

var name = cname + "=";

var decodedCookie = decodeURIComponent(document.cookie);

var ca = decodedCookie.split(';');

for(var i = 0; i <ca.length; i++) {

var c = ca[i];

while (c.charAt(0) == ' ') {

c = c.substring(1);

}

if (c.indexOf(name) == 0) {

return c.substring(name.length, c.length);

}

}

return "";

}