**Teacher Portal Java Project**

**Prerequisites :**

The things you need before installing the project source code.

1.You need to have basic knowledge of Java syntax.

2.You need to have understanding of Classes and Functions.

3.Don't forget to have Java and Netbeans installed (you can use other editors as well i.e Intelij & Eclipse)

**About :**

For our semester project we have decided to design a console based Teachers’ Portal System using Eclipse (IDE for java). This project aims at creating a portal for teachers where they can sign into their accounts using their respective assigned Usernames and Passwords, incorrect or invalid username or password will prompt the user to again sign in, consecutive 4 wrong attempts will lead to permanent block for the account.

Once logged in to their account, teacher will have access to the following options:

Inserting Marks for the following:

1. Quizzes.

2. Mid Term Examination.

3. Terminal Examination.

Inserting Attendance Status for the following:

1. Class Attendance.

2. Lab Attendance.

Viewing Marks for the following:

1. Quizzes.

2. Mid Term Examination.

3. Terminal Examination.

Viewing Attendance for the following:

1. Class Attendance.

2. Lab Attendance.

After performing the desired actions, the user will then get the option to log out of their portal

**CODE :**

/\*

For Login : Two accounts namely Teacher 1 and Teacher 2

Passwords : To login -> 111 and 222, respectively!

\*/

import java.io.BufferedReader;

import java.io.BufferedWriter;

import java.io.FileReader;

import java.io.FileWriter;

import java.io.IOException;

import java.util.Scanner;

public class FInal\_project {

public static void main(String[] args) {

//Initial details..

String[] userName = {"Teacher 1", "Teacher 2"};

String[] passwordKey = {"111", "222"};

//Declaration of variables ..

int desireOption = 0;

int choiceMarks = 0;

int choiceAttend = 0;

int choiceMarksView = 0;

int choiceAttendView = 0;

int tries = 0;

while (true) {

//login console...

Scanner input = new Scanner(System.in);

System.out.print("Enter Username: ");

String email = input.nextLine().trim();

System.out.print("Enter Password Key: ");

String password = input.next();

if ((email.equals(userName[0])) && (password.equals(passwordKey[0]))) {

String[] studentNames = {"Student 1 ", "Student 2", "Student 3", "Student 4 ", "Student 5 ", "Student 6 "};

do {

System.out.println("\*\*PROGRAMMING FUNDAMENTAL TEACHER PORTAL\*\*");

System.out.println("Welcome Teacher 1!");

System.out.println("Enter number to perform corresponding opeartion");

System.out.println("1: Insert marks");

System.out.println("2: Insert attendance");

System.out.println("3: View marks");

System.out.println("4: View attendance");

System.out.println("5: To log out");

desireOption = input.nextInt();

switch (desireOption) {

case 1:

do {

//To insert marks respectivley..

System.out.println("\* Insert Marks \*\*");

System.out.println("1: Enter Quiz 1 marks.");

System.out.println("2: Enter Quiz 2 marks.");

System.out.println("3: Enter Mid marks.");

System.out.println("4: Enter Terminal marks.");

System.out.println("5: Exit.");

System.out.println("Select respective choice: ");

choiceMarks = input.nextInt();

switch (choiceMarks) {

case 1:

//to write Quiz-1 marks..

String fileName = "pfQuiz\_1.txt";

String type = "Quizzes:";

String marksTotal = " 20 ";

int marks[] = new int[studentNames.length];

initializerQuiz(marks);

fileWriterMarks(fileName, type, marksTotal, marks);

break;

case 2:

//to write Quiz-2 marks..

fileName = "pfQuiz\_2.txt";

type = "Quizzes:";

marksTotal = " 20 ";

marks = new int[studentNames.length];

initializerQuiz(marks);

fileWriterMarks(fileName, type, marksTotal, marks);

break;

case 3:

//to write Mids marks..

fileName = "pfMid.txt";

type = "Mids:";

marksTotal = " 30 ";

marks = new int[studentNames.length];

initializerMid(marks);

fileWriterMarks(fileName, type, marksTotal, marks);

break;

case 4:

//to write terminal marks..

fileName = "pfTerminal.txt";

type = "Terminals:";

marksTotal = " 50 ";

marks = new int[studentNames.length];

initializerTerminal(marks);

fileWriterMarks(fileName, type, marksTotal, marks);

break;

case 5:

//Using the choice as a FLAG Variable to break loop..

choiceMarks = 5;

break;

default:

System.out.println("Invalid Input, please select a valid option");

}

} while (choiceMarks != 5);

break;

case 2:

do {

System.out.println("\* Mark Attendance \*\*");

System.out.println("1: Lab Attendance.");

System.out.println("2: Class Atendance.");

System.out.println("3: Exit.");

System.out.print("Your Choice: ");

choiceAttend = input.nextInt();

switch (choiceAttend) {

case 1:

//for lab attendance....

String fileName = "pflabAttendance.txt";

fileWriterAttendance(fileName);

break;

case 2:

//for class Attendance

fileName = "pfclassAttendance.txt";

fileWriterAttendance(fileName);

break;

case 3:

choiceAttend = 3;

break;

default:

//If user enters other than choices --> prompt this..

System.out.println("Invalid Input, please select a valid option");

}

} while (choiceAttend != 3);

break;

case 3:

do {

//To View marks respectivley..

System.out.println("\* View Marks \*\*");

System.out.println("1: View Quiz 1 marks.");

System.out.println("2: View Quiz 2 marks.");

System.out.println("3: View Mid marks.");

System.out.println("4: View Terminal marks.");

System.out.println("5: Exit.");

System.out.println("Select respective choice: ");

choiceMarksView = input.nextInt();

switch (choiceMarksView) {

case 1:

//to view Quiz-1 marks..

String n = "pfQuiz\_1.txt";

reader(n);

break;

case 2:

//to view Quiz-2 marks..

n = "pfQuiz\_2.txt";

reader(n);

break;

case 3:

//to view Mids marks..

n = "pfMid.txt";

reader(n);

break;

case 4:

//to view Terminals marks..

n = "pfTerminal.txt";

reader(n);

break;

case 5:

//flag variable to logout..

choiceMarksView = 5;

break;

default:

System.out.println("Invalid Input, please select a valid option");

}

} while (choiceMarksView != 5);

break;

case 4:

do {

System.out.println("\* View Attendance \*\*");

System.out.println("1: Lab Attendance.");

System.out.println("2: Class Atendance.");

System.out.println("3: Exit.");

System.out.print("Your Choice: ");

choiceAttendView = input.nextInt();

switch (choiceAttendView) {

case 1:

//to view Lab attendance..

String n = "pfLabAttendance.txt";

reader(n);

break;

case 2:

//to view class attendance..

n = "pfClassAttendance.txt";

reader(n);

break;

case 3:

//flag variable ..

choiceAttendView = 3;

break;

default:

//prompt for choices other than above case..

System.out.println("Invalid Input, please select a valid option");

}

} while (choiceAttendView != 3);

break;

case 5:

//Flag Variable for Logout to Login console..

desireOption = 5;

break;

default:

System.out.println("Invalid Input, please select a valid option");

}

} while (desireOption != 5);

System.out.println("Logging Out!");

break;

} else if ((email.equals(userName[1])) && (password.equals(passwordKey[1]))) {

String[] studentNames = {"Student 1 ", "Student 2", "Student 3", "Student 4 ", "Student 5 ", "Student 6 "};

do {

System.out.println("\*\*FUNDAMENTALS OF GENETICS TEACHER PORTAL\*\*");

System.out.println("Welcome Teacher 2!");

System.out.println("Enter number to perform corresponding opeartion");

System.out.println("1: Insert marks");

System.out.println("2: Insert attendance");

System.out.println("3: View marks");

System.out.println("4: View attendance");

System.out.println("5: To log out");

desireOption = input.nextInt();

switch (desireOption) {

case 1:

do {

//To insert marks respectivley..

System.out.println("\* Insert Marks \*\*");

System.out.println("1: Enter Quiz 1 marks.");

System.out.println("2: Enter Quiz 2 marks.");

System.out.println("3: Enter Mid marks.");

System.out.println("4: Enter Terminal marks.");

System.out.println("5: Exit.");

System.out.println("Select respective choice: ");

choiceMarks = input.nextInt();

switch (choiceMarks) {

case 1:

//to write Quiz-1 marks..

String fileName = "genQuiz\_1.txt";

String type = "Quizzes:";

String marksTotal = " 20 ";

int marks[] = new int[studentNames.length];

initializerQuiz(marks);

fileWriterMarks(fileName, type, marksTotal, marks);

break;

case 2:

//to write Quiz-2 marks.

fileName = "genQuiz\_2.txt";

type = "Quizzes:";

marksTotal = " 20 ";

marks = new int[studentNames.length];

initializerQuiz(marks);

fileWriterMarks(fileName, type, marksTotal, marks);

break;

case 3:

//to write Mids marks...

fileName = "genMid.txt";

type = "Mids:";

marksTotal = " 30 ";

marks = new int[studentNames.length];

initializerMid(marks);

fileWriterMarks(fileName, type, marksTotal, marks);

break;

case 4:

//to write terminal marks.

fileName = "genTerminals.txt";

type = "Terminals:";

marksTotal = " 50 ";

marks = new int[studentNames.length];

initializerTerminal(marks);

fileWriterMarks(fileName, type, marksTotal, marks);

break;

case 5:

//Using the choice as a FLAG Variable to break loop..

choiceMarks = 5;

break;

default:

//flag variable..

System.out.println("Invalid Input, please select a valid option");

}

} while (choiceMarks != 5);

break;

case 2:

do {

// to mark attendance ..

System.out.println("\* Mark Attendance \*\*");

System.out.println("1: Lab Attendance.");

System.out.println("2: Class Atendance.");

System.out.println("3: Exit.");

System.out.print("Your Choice: ");

choiceAttend = input.nextInt();

switch (choiceAttend) {

case 1:

//for lab attendance....

String fileName = "genLabAttendance.txt";

fileWriterAttendance(fileName);

break;

case 2:

//for class Attendance

fileName = "genClassAttendance.txt";

fileWriterAttendance(fileName);

break;

case 3:

choiceAttend = 3;

break;

default:

System.out.println("Invalid Input, please select a valid option");

}

} while (choiceAttend != 3);

break;

case 3:

do {

//To View marks respectivley..

System.out.println("\* View Marks \*\*");

System.out.println("1: View Quiz 1 marks.");

System.out.println("2: View Quiz 2 marks.");

System.out.println("3: View Mid marks.");

System.out.println("4: View Terminal marks.");

System.out.println("5: Exit.");

System.out.println("Select respective choice: ");

choiceMarksView = input.nextInt();

switch (choiceMarksView) {

case 1:

//to view Quiz-1 marks..

String n = "genQuiz\_1.txt";

reader(n);

break;

case 2:

//to view Quiz-2 marks..

n = "genQuiz\_2.txt";

reader(n);

break;

case 3:

//to view Mids marks..

n = "genMid.txt";

reader(n);

break;

case 4:

//to view Terminals marks..

n = "genTerminals.txt";

reader(n);

break;

case 5:

//flag variable to Exit..

choiceMarksView = 5;

break;

default:

System.out.println("Invalid Input, please select a valid option");

}

} while (choiceMarksView != 5);

break;

case 4:

do {

//to view Lab attendance..

System.out.println("\* View Attendance \*\*");

System.out.println("1: Lab Attendance.");

System.out.println("2: Class Atendance.");

System.out.println("3: Exit.");

System.out.print("Your Choice: ");

choiceAttendView = input.nextInt();

switch (choiceAttendView) {

case 1:

//to view lab attendance..

String n = "genLabAttendance.txt";

reader(n);

break;

case 2:

//to view class attendance

n = "genClassAttendance.txt";

reader(n);

break;

case 3:

// flag variable

choiceAttendView = 3;

break;

default:

//prompt for choices other than above case..

System.out.println("Invalid Input, please select a valid option");

}

} while (choiceAttendView != 3);

break;

case 5:

//Flag Variable for Logout to Login console..

desireOption = 5;

break;

default:

System.out.println("Invalid Input, please select a valid option");

}

} while (desireOption != 5);

System.out.println("Logging Out!");

break;

} else {

if (tries == 3) {

break;

}

System.out.println("Try Again ( You have " + (3 - tries) + " tries)");

System.out.println(" ");

System.out.println("Invalid Key!");

System.out.println(" ");

tries++;

}

}

}

//Method --> Initializer For Quiz Marks entry to avoid repitition of same code ..

private static int[] initializerQuiz(int[] marks) {

Scanner input = new Scanner(System.in);

int j = 1;

int i = 0;

while (i < marks.length) {

System.out.print("Enter obtained marks for registeration number " + j + ": ");

int mark = input.nextInt();

//Condition to avoid invalid input ..

if (mark >= 0 && mark <= 20) {

marks[i] = mark;

j++;

i++;

} else {

System.out.println("Invalid input !");

}

}

return marks;

}

//Method --> Initializer For mids Marks entry to avoid repitition of same code ..

private static int[] initializerMid(int[] marks) {

Scanner input = new Scanner(System.in);

int j = 1;

int i = 0;

while (i < marks.length) {

System.out.print("Enter obtained marks for registeration number " + j + ": ");

int mark = input.nextInt();

//Condition to avoid invalid input ..

if (mark >= 0 && mark <= 30) {

marks[i] = mark;

j++;

i++;

} else {

System.out.println("Invalid input !");

}

}

return marks;

}

//Method --> Initializer For Terminal Marks entry to avoid repitition of same code ..

private static int[] initializerTerminal(int[] marks) {

Scanner input = new Scanner(System.in);

int j = 1;

int i = 0;

while (i < marks.length) {

System.out.print("Enter obtained marks for registeration number " + j + ": ");

int mark = input.nextInt();

//Condition to avoid invalid input ..

if (mark >= 0 && mark <= 50) {

marks[i] = mark;

j++;

i++;

} else {

System.out.println("Invalid input !");

}

}

return marks;

}

//Method --> Initializer For Attendance to avoid repitition of same code ..

private static String[] initializer(String[] attendance) {

String[] x = {"p", "a", "P", "A"};

Scanner input = new Scanner(System.in);

int j = 1;

int i = 0;

while (i < attendance.length) {

System.out.print("Enter attendance status for registeration number " + j + ": ");

String attend = input.next();

if (attend.equals(x[0]) || attend.equals(x[1]) || attend.equals(x[2]) || attend.equals(x[3])) {

attendance[i] = attend;

j++;

i++;

} else {

System.out.println("Invalid Input");

}

}

return attendance;

}

//Method --> Reader For File reading of file which is passed as an argument ..

private static void reader(String n) {

try {

BufferedReader reader = new BufferedReader(new FileReader(n));

Scanner sc = new Scanner(reader);

while (sc.hasNextLine()) {

String Line = sc.nextLine();

System.out.println(Line);

}

} catch (IOException e) {

e.printStackTrace();

}

}

//Method --> File writer for Marks to avoid repitition of same code ..

private static void fileWriterMarks(String a, String b, String c, int[] marks2) {

String[] studentNames = {"Student 1 ", "Student 2", "Student 3", "Student 4 ", "Student 5 ", "Student 6 "};

try {

int[] marks = marks2;

BufferedWriter writer = new BufferedWriter(new FileWriter(a));

writer.write(b);

writer.write("\n Name: Marks: Obtained:");

for (int i = 0; i < studentNames.length; i++) {

writer.write("\n ");

writer.write(studentNames[i]);

writer.write(c);

writer.write(Integer.toString(marks[i]));

}

writer.close();

} catch (IOException e) {

e.printStackTrace();

}

}

//Method --> File writer for Attendance to avoid repitition of same code ..

private static void fileWriterAttendance(String a) {

String[] studentNames = {"Student 1 ", "Student 2", "Student 3", "Student 4 ", "Student 5 ", "Student 6 "};

try {

String attendance[] = new String[studentNames.length];

initializer(attendance);

BufferedWriter writer = new BufferedWriter(new FileWriter(a));

writer.write("Attendance:");

writer.write("\n Name: Attendance:");

for (int i = 0; i < studentNames.length; i++) {

writer.write("\n ");

writer.write(studentNames[i]);

writer.write("\t\t" + attendance[i]);

}

writer.close();

} catch (IOException e) {

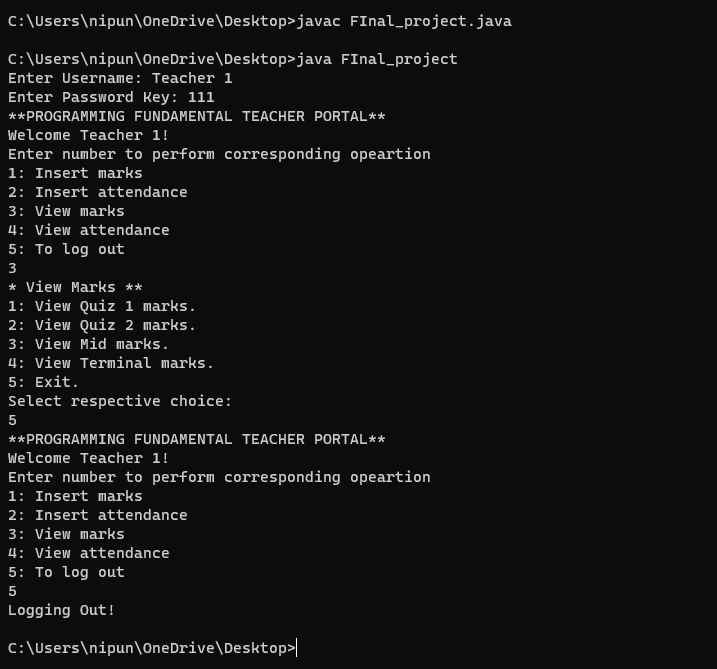
e.printStackTrace();

}

}

}

/\* Code By NIPUN KUMAR \*/

**OUTPUT :**

**Java Project Teacher Portal :-**

**SUBMITTED BY –** Nipun Kumar

**SUBMITTED TO –** Mr. R Nagendran

**CLASS –** B.TECH CSE SEC-5

**ADMISSION NO. –**22SCSE1010833

**SUBJECT –** Java and Javascript

**COURSE CODE –** E2UC304C

**ENROLLMENT NO. -** 22131010873