**Muhammad Shahid Faqeer**

**(20-Arid-906)**

**BSSE 5(B)-Evening**

**UIIT**

**Assignment 2**

**Sir Azhar**

**Software Construction**

**Program:**

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\* Click nbfs://nbhost/SystemFileSystem/Templates/Project/Maven2/JavaApp/src/main/java/${packagePath}/${mainClassName}.java to edit this template

\*/

package com.mycompany.softwareconstruction1;

import java.util.\*;

class Candidate

{

private String name;

private int age;

private int CNIC;

private String Qualification;

Candidate(){

name="none";

age=0;

CNIC=0;

Qualification="none";

}

public void apply()

{

System.out.println("Apply for(1/2)");

System.out.println(availablePosts());

}

public String availablePosts()

{

return "Soldier Recruitment\nPMA Long Course";

}

public String getName()

{

return name;

}

public int getAge()

{

return age;

}

public int getCNIC()

{

return CNIC;

}

public String getQualification()

{

return Qualification;

}

public void setName(String name)

{

this.name=name;

}

public void setAge(int age)

{

this.age=age;

}

public void setCNIC(int CNIC)

{

this.CNIC=CNIC;

}

public void setQualification(String Qualification)

{

this.Qualification=Qualification;

}

}

abstract class Posts

{

protected Candidate candidate=new Candidate();

Posts()

{

//Constructor

}

Posts(Candidate candidate)

{

this.candidate=candidate;

}

public abstract boolean CheckEligibility();

}

class SoldierRecruitment extends Posts

{

SoldierRecruitment()

{

super();

}

SoldierRecruitment(Candidate candidate)

{

super(candidate);

}

@Override

public boolean CheckEligibility()

{

return candidate.getAge()<22 && candidate.getQualification().equals("Matric");

}

}

class PmaLongCourse extends Posts

{

PmaLongCourse()

{

super();

}

PmaLongCourse(Candidate candidate)

{

super(candidate);

}

public boolean CheckEligibility()

{

return candidate.getAge()<22 && candidate.getQualification().equals("FSC");

}

}

class Applicant

{

private String ID;

private String password;

Applicant()

{

ID="Applicant";

password="applicant";

}

public void changePassword()

{

Scanner sc=new Scanner(System.in);

System.out.println("Enter old password:");

if(sc.next().equals(password))

{

System.out.println("Enter new password");

password=sc.next();

}

else

{

System.out.println("Wrong Password!");

}

}

public void Applyfor()

{

System.out.println("Which post you want to apply for?\nEnter:\n\t1for Soldier Recruitment\n\t2 for PMA Long Course");

Scanner sc=new Scanner(System.in);

switch(sc.nextInt())

{

case 1 -> {

Posts p=new SoldierRecruitment();

}

case 2 -> {

Posts p=new PmaLongCourse();

}

default -> {

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

return;

}

}

}

}

class Criteria

{

private String Qualification;

private int height;

private int weight;

private int eyesight;

private int chest;

Criteria()

{

Qualification="none";

height=0;

weight=0;

eyesight=0;

chest=0;

}

public void setQualification(String Qualification)

{

this.Qualification=Qualification;

}

public void setHeight(int height)

{

this.height=height;

}

public void setWeight(int weight)

{

this.weight=weight;

}

public void setEyesight(int eyesight)

{

this.eyesight=eyesight;

}

public void setChest(int chest)

{

this.chest=chest;

}

public String getQualification()

{

return Qualification;

}

public int getHeight()

{

return height;

}

public int getWeight()

{

return weight;

}

public int getEyesight()

{

return eyesight;

}

public int getChest()

{

return chest;

}

}

class Admin

{

private String Name="Admin";

private String password="12345678";

Criteria SoldierCriteria=new Criteria();

Criteria pmaLongCriteria=new Criteria();

Admin()

{

//constructor

}

public void changePassword()

{

Scanner sc=new Scanner(System.in);

System.out.println("Enter old password:");

if(sc.next().equals(password))

{

System.out.println("Enter new password");

password=sc.next();

}

else

{

System.out.println("Wrong Password!");

}

}

public void setSoldierCriteria()

{

Scanner sc=new Scanner(System.in);

System.out.println("Enter Criteria for Soldier(Qualification, height, weight, eyesight, chest");

System.out.println("Enter required Qualification:");

SoldierCriteria.setQualification(sc.next());

System.out.println("Enter required height:");

SoldierCriteria.setHeight(sc.nextInt());

System.out.println("Enter required weight:");

SoldierCriteria.setWeight(sc.nextInt());

System.out.println("Enter required Eye Sight:");

SoldierCriteria.setEyesight(sc.nextInt());

System.out.println("Enter required chest size:");

SoldierCriteria.setChest(sc.nextInt());

}

public void SetPmaLongCriteria()

{

Scanner sc=new Scanner(System.in);

System.out.println("Enter Criteria for PMA Long(Qualification, height, weight, eyesight, chest");

System.out.println("Enter required Qualification:");

pmaLongCriteria.setQualification(sc.next());

System.out.println("Enter required height:");

pmaLongCriteria.setHeight(sc.nextInt());

System.out.println("Enter required weight:");

pmaLongCriteria.setWeight(sc.nextInt());

System.out.println("Enter required Eye Sight:");

pmaLongCriteria.setEyesight(sc.nextInt());

System.out.println("Enter required chest size:");

pmaLongCriteria.setChest(sc.nextInt());

}

public Criteria getSoldierCriteria()

{

return SoldierCriteria;

}

public Criteria getPmaLongCriteria()

{

return pmaLongCriteria;

}

}

class ITGDirMan

{

private String Name="ITGDM";

private String password="12345678";

Criteria SoldierCriteria=new Criteria();

Criteria pmaLongCriteria=new Criteria();

ITGDirMan()

{

//constructor

}

public void changePassword()

{

Scanner sc=new Scanner(System.in);

System.out.println("Enter old password:");

if(sc.next().equals(password))

{

System.out.println("Enter new password");

password=sc.next();

}

else

{

System.out.println("Wrong Password!");

}

}

public void setSoldierCriteria()

{

Scanner sc=new Scanner(System.in);

System.out.println("Enter Criteria for Soldier(Qualification, height, weight, eyesight, chest");

System.out.println("Enter required Qualification:");

SoldierCriteria.setQualification(sc.next());

System.out.println("Enter required height:");

SoldierCriteria.setHeight(sc.nextInt());

System.out.println("Enter required weight:");

SoldierCriteria.setWeight(sc.nextInt());

System.out.println("Enter required Eye Sight:");

SoldierCriteria.setEyesight(sc.nextInt());

System.out.println("Enter required chest size:");

SoldierCriteria.setChest(sc.nextInt());

}

public void SetPmaLongCriteria()

{

Scanner sc=new Scanner(System.in);

System.out.println("Enter Criteria for PMA Long(Qualification, height, weight, eyesight, chest");

System.out.println("Enter required Qualification:");

pmaLongCriteria.setQualification(sc.next());

System.out.println("Enter required height:");

pmaLongCriteria.setHeight(sc.nextInt());

System.out.println("Enter required weight:");

pmaLongCriteria.setWeight(sc.nextInt());

System.out.println("Enter required Eye Sight:");

pmaLongCriteria.setEyesight(sc.nextInt());

System.out.println("Enter required chest size:");

pmaLongCriteria.setChest(sc.nextInt());

}

public Criteria getSoldierCriteria()

{

return SoldierCriteria;

}

public Criteria getPmaLongCriteria()

{

return pmaLongCriteria;

}

public List<Applicant> ShortListApplicants()

{

List<Applicant> list=new ArrayList<>();

return list;

}

}

class Login

{

private String userName;

private String password;

Login()

{

userName="none";

password="none";

}

public void Register(String userName, String password)

{

this.userName=userName;

this.password=password;

}

}

/\*\*

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\* @author Shahid

\*/

public class SoftwareConstruction1 {

public static void main(String[] args) {

System.out.println("Main Code canbe written as required!");

}

}