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import java.util.Scanner;
import java.util.*;
class Task2
{
    Scanner sc = new Scanner(System.in);
    HashMap<String,Integer> info = new HashMap<String,Integer>();
    public void login()
    {
        info.put("amaan1",1111);
        info.put("amaan2",2222);
        info.put("amaan3",3333);
        info.put("amaan4",4444);
        info.put("amaan5",5555);
        String id;
        int pwd;
        System.out.println("LOGIN");
        System.out.println("Enter Username : ");
        id = sc.next();
        System.out.println("Enter Password : ");
        pwd = sc.nextInt();
        if(info.containsKey(id) && info.get(id)==pwd)
        {
            System.out.println("\nLogin successful!");
            menu();
        }
        else
        {
            System.out.println("\nIncorrect user ID or password!\nTry again!\n");
            login();
        }
    }
    public void menu()
    {
        int ch;
        System.out.println("\nEnter Choice : ");
        System.out.println("1.Update profile \n2.Start Exam \n3.Logout");
        ch = sc.nextInt();
        switch(ch)
        {
            case 1:
                info = update();
                menu();
                break;
            case 2:
                startExam();
                menu();
                break;
            case 3:
                System.exit(0);
                break;
            default:
                System.out.println("Choose correct choice : ");
        }
    }
    public HashMap<String,Integer> update()

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{
    String update_id;
    int update_pwd;
    System.out.println("Enter Username : ");
    update_id = sc.next();
    System.out.println("Enter Old Password : ");
    update_pwd = sc.nextInt();
    if(info.containsKey(update_id) && info.get(update_id)==update_pwd)
    {
        System.out.println("Enter New Password : ");
        update_pwd = sc.nextInt();
        info.replace(update_id,update_pwd);
        System.out.println("PASSWORD CHANGED SUCCESSFULLY");
    }
    else
    {
        System.out.println("User not found\n");
    }
    return info;
}
public void startExam()
{
    long startTime = System.currentTimeMillis();
    long endTime = startTime + 30;
    int score = 0,ans;

    while(System.currentTimeMillis()<endTime)
    {
        System.out.println("-----");
        System.out.println("Q1.The device through which data and instructions are entered into a compute
r?");
        System.out.println("1.Input device \t2.Output device \t3.Software \t4.Hardware");
        System.out.print("Answer : ");
        ans = sc.nextInt();
        if(ans == 1)
            score+=5;
        else
            score--;

        System.out.println("-----");
        System.out.println("Q2.ALU stands for ? ");
        System.out.println("1. Arithmetic Lexical Unit\t2. Arithmetic Logical Unit\t3. Arrival Location Time \t
4. None");
        System.out.print("Answer : ");
        ans = sc.nextInt();
        if(ans == 2)
            score+=5;
        else
            score--;

        System.out.println("-----");
        System.out.println("Q3.Which is operating system?");
        System.out.println("1. Linux\t2. MySQL\t3. JetBrains\t4. Eclipse");
        System.out.print("Answer : ");
        ans = sc.nextInt();
    }
}

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    if(ans == 1)
        score+=5;
    else
        score--;

    System.out.println("-----");
    System.out.println("Q4.Inventor of Computer?");
    System.out.println("1. Elon Musk\t2. Charles Babbage\t3. Tata Jamshed\t4. Bill Gates");
    System.out.print("Answer : ");
    ans = sc.nextInt();
    if(ans == 2)
        score+=5;
    else
        score--;

    System.out.println("-----");
    System.out.println("Q5.Full form of CPU?");
    System.out.println("1. Computer Principle Unit\t2.) Computer Processing Unit\t3. Central Processi
ng Unit\t4.Control Processing Unit");
    System.out.print("Answer : ");
    ans = sc.nextInt();
    if(ans == 3)
        score+=5;
    else
        score--;
    System.out.println("-----");
    break;
}
System.out.println("Exam Finished");
System.out.println();
System.out.println("Grade = "+score);
if(score>10)
    System.out.println("Congratutaions\nYou are Pass.");
else
    System.out.println("You are Fail\nBetter Luck Next Time.");
}
public static void main(String args[])
{
    Task2 obj = new Task2();
    obj.login();
}
}

```