**import** java.util.\*;

**public** **class** Diary

{

**public** String name;

**public** String date;

**public** String time;

**public** String place;

**public** String data;

**public** Diary next;

**public** Diary(String name,String date,String time,String place,String data)

{

**this**.name=name;

**this**.date=date;

**this**.time=time;

**this**.place=place;

**this**.data=data;

}

**public** **void** display()

{

System.***out***.println(name);

System.***out***.println(date);

System.***out***.println(time);

System.***out***.println(place);

System.***out***.println(data);

}

**public** **static** **boolean** isValid(String password)

{

Boolean atleastOneLower=**false**;

Boolean atleastOneDigit=**false**;

**if**(password.length()<8)

{

**return** **false**;

}

**for**(**int** i=0;i<password.length();i++)

{

**if** (Character.*isLowerCase*(password.charAt(i)))

{

atleastOneLower = **true**;

}

**else** **if** (Character.*isDigit*(password.charAt(i)))

{

atleastOneDigit = **true**;

}

}

**return**(atleastOneLower&&atleastOneDigit);

}

**public** String toString()

{

**return** date;

}

**public** **static** **void** main(String[] args)

{

String Name;

String Date=**null**;

String Time;

String Place;

String Data;

String password;

String confirm;

**int** choice;

**char** ch;

**char** ch1;

**char** ch2;

**char** ch3;

**char** ch4;

String str;

Scanner s=**new** Scanner(System.***in***);

linklist ll=**new** linklist();

System.***out***.println("------PASSWORD PROTECTED PERSONAL DIARY------");

System.***out***.println("\*\*\*\*SET PASSWORD\*\*\*\*");

System.***out***.println("....There should be minimum 8 characters and should contains a numeric value too....");

System.***out***.print("Please enter password : ");

password=s.next();

System.***out***.print("Please re-enter the password to confirm : ");

confirm=s.next();

**boolean** condition;

condition=*isValid*(password);

**while**(!password.equals(confirm)&&(!condition))

{

System.***out***.println("The password is invalid");

System.***out***.println("Please enter the password again : ");

String Password=s.nextLine();

System.***out***.println("Please re-enter the password to confirm : ");

String Confirm=s.nextLine();

}

**if** (*isValid*(password))

{

System.***out***.println("The password is valid");

}

**while**(**true**)

{

System.***out***.println("------PASSWORD PROTECTED PERSONAL DIARY------");

System.***out***.println("Enter Password : ");

password=s.next();

**if** (password.equals(confirm))

{

System.***out***.println("Access Granted... Welcome");

System.***out***.println("1.ADD RECORD");

System.***out***.println("2.DELETE FIRST RECORD");

System.***out***.println("3.VIEW RECORD");

System.***out***.println("4.SEARCH RECORD");

System.***out***.println("5.DELETE RECORD");

System.***out***.println("-----Enter your choice-----");

choice=s.nextInt();

**switch**(choice)

{

**case** 1:

{

**do**

{

System.***out***.println("\*\*\*Enter name\*\*\*");

Name=s.next();

System.***out***.println("\*\*\*Enter date\*\*\*");

Date=s.next();

System.***out***.println("\*\*\*Enter time\*\*\*");

Time=s.next();

System.***out***.println("\*\*\*Enter place\*\*\*");

Place=s.next();

System.***out***.println("\*\*\*Enter data\*\*\*");

Data=s.nextLine();

Data=s.nextLine();

ll.insertlink(Name,Date,Time,Place,Data);

System.***out***.println("Do you want to add more records : y/n");

ch4=s.next().charAt(0);

}

**while**(ch4=='y');

**break**;

}

**case** 2:

{

System.***out***.println("\*\*\*Do you want to remove first record : y/n\*\*\*");

ch3=s.next().charAt(0);

**if**(ch3=='y')

{

ll.remove();

}

System.***out***.println("RECORD DELETED SUCCESSFULLY...!!!");

**break**;

}

**case** 3:

{

**do**

{

System.***out***.println("\*\*\*(a)View whole record\*\*\*");

System.***out***.println("\*\*\*(b)View Record according to date\*\*\*");

System.***out***.println("Enter choice : ");

ch1=s.next().charAt(0);

**if**(ch1=='a')

{

ll.display();

}

**else** **if**(ch1=='b')

{

ll.displaydat();

}

System.***out***.println("Do you want to view more records : y/n");

ch2=s.next().charAt(0);

}

**while**(ch2=='y');

**break**;

}

**case** 4:

{

System.***out***.println("\*\*\*Search Record according to date\*\*\*");

System.***out***.println("Enter date : ");

Date=s.next();

ll.find(Date);

System.***out***.println(Date +" date found");

ll.displaydat();

**break**;

}

**case** 5:

{

System.***out***.println("\*\*\*Delete Record ccording to date\*\*\*");

System.***out***.println("Enter date : ");

Date=s.next();

ll.del(Date);

System.***out***.println("RECORD DELETED SUCCESSFULLY...!!!");

**break**;

}

**default**:

{

System.***out***.println("Wrong Choice");

**break**;

}

}

System.***out***.println("do you want to continue : yes/no :");

str=s.next();

}

**else**

{

System.***out***.println("Invalid Password");

}

}

/\*while(str=="yes");\*/

}

}

**class** linklist

{

**public** Diary start;

linklist()

{

start=**null**;

}

**public** **boolean** isEmpty()

{

**return**(start==**null**);

}

**public** **void** insertlink(String name,String date,String time,String place,String data)

{

Diary temp=**new** Diary(name,date,time,place,data);

temp.next=start;

start=temp;

}

**public** Diary remove()

{

Diary temp1=start;

**if**(!isEmpty())

{

start=start.next;

}

**else**

{

System.***out***.println("empty linked list");

}

**return** temp1;

}

**public** **void** display()

{

Diary temp2=start;

**if**(start==**null**)

{

System.***out***.println("---NO RECORD FOUND---");

}

**while**(temp2!=**null**)

{

temp2.display();

temp2=temp2.next;

System.***out***.println();

}

}

**public** Diary find(String date)

{

Diary temp2=start;

**if**(!isEmpty())

{

**while**(temp2.date!=date)

{

**if**(temp2.next==**null**)

{

**return** **null**;

}

**else**

{

temp2=temp2.next;

}

}

}

**else**

{

System.***out***.println("empty linked list");

}

**return** temp2;

}

**public** Diary del(String date)

{

Diary currentlink=start;

Diary prevlink=start;

**while**(currentlink.date.equals(date) == **false**)

{

**if**(currentlink.next==**null**)

{

**return** **null**;

}

**else**

{

prevlink=currentlink;

currentlink=currentlink.next;

}

}

**if**(currentlink==start)

{

start=start.next;

}

**else**

{

prevlink.next=currentlink.next;

}

**return** currentlink;

}

**public** Diary displaydat()

{

String date=**null**;

Scanner s1=**new** Scanner(System.***in***);

Diary temp2=start;

System.***out***.println("enter date : ");

date=s1.nextLine();

**if**(start==**null**)

{

System.***out***.println("--NO DATA PRESENT--");

}

**else**

{

**while**(temp2!=**null**)

{

**while**(temp2.date.equals(date))

{

**if**(temp2.date.equals(date))

{

System.***out***.println(temp2.name);

System.***out***.println(temp2.date);

System.***out***.println(temp2.time);

System.***out***.println(temp2.place);

System.***out***.println(temp2.data);

}

**else**

{

System.***out***.println("DATE NOT FOUND");

}

temp2=temp2.next;

}

temp2=temp2.next;

System.***out***.println();

}

}

**return** temp2;

}

}