**Day 3 Assignment(14/01/2021):**

**Assignment 2**

Take n number records through keyboards as Id,Name,Salary,Desg

(array id,name,salary,Desg).

Salary = salary + hra + da – pf;

Hra is 10% salary

Da is 7 % salary

Pf 5 % salary

If desg is manager desg.equals(“Developer”)

15% bonus

If developer 10% bonus

Else

5 % bonus

Id, name, salary( grossSalary +bonus ) and desg.

**Solution:**

import java.util.Scanner;

class Assignment2

{

public static void main(String args[])

{

Scanner sc=new Scanner(System.in);

System.out.println("Enter number of details you want to store:");

int n=sc.nextInt();

int []id= new int[n];

String []name=new String[n];

float []salary=new float[n];

String []desg=new String[n];

for(int i=0;i<n;i++)

{

System.out.println("Enter id of employee "+(i+1));

id[i]=sc.nextInt();

sc.nextLine();

System.out.println("Enter name of employee "+(i+1));

name[i]=sc.nextLine();

System.out.println("Enter salary of employee "+(i+1));

salary[i]=sc.nextFloat();

sc.nextLine();

System.out.println("Enter designation of employee "+(i+1));

desg[i]=sc.nextLine();

System.out.println("\n");

}

for(int k=0;k<n;k++)

{

float hra,da,pf;

hra=salary[k]\*0.1f;

da=salary[k]\*0.07f;

pf=salary[k]\*0.05f;

if(desg[k].equals("manager"))

{

salary[k]=(salary[k]+hra+da-pf)+(salary[k]\*0.15f);

System.out.println("\n");

System.out.println("Details of Employee:"+(k+1));

System.out.println("id="+id[k]);

System.out.println("Name="+name[k]);

System.out.println("Salary="+salary[k]);

System.out.println("Designation="+desg[k]);

}

else if(desg[k].equals("developer"))

{

salary[k]=(salary[k]+hra+da-pf)+(salary[k]\*0.1f);

System.out.println("\n");

System.out.println("Details of Employee:"+(k+1));

System.out.println("id="+id[k]);

System.out.println("Name="+name[k]);

System.out.println("Salary="+salary[k]);

System.out.println("Designation="+desg[k]);

}

else

{

salary[k]=(salary[k]+hra+da-pf)+(salary[k]\*0.05f);

System.out.println("\n");

System.out.println("Details of Employee:"+(k+1));

System.out.println("id="+id[k]);

System.out.println("Name="+name[k]);

System.out.println("Salary="+salary[k]);

System.out.println("Designation="+desg[k]);

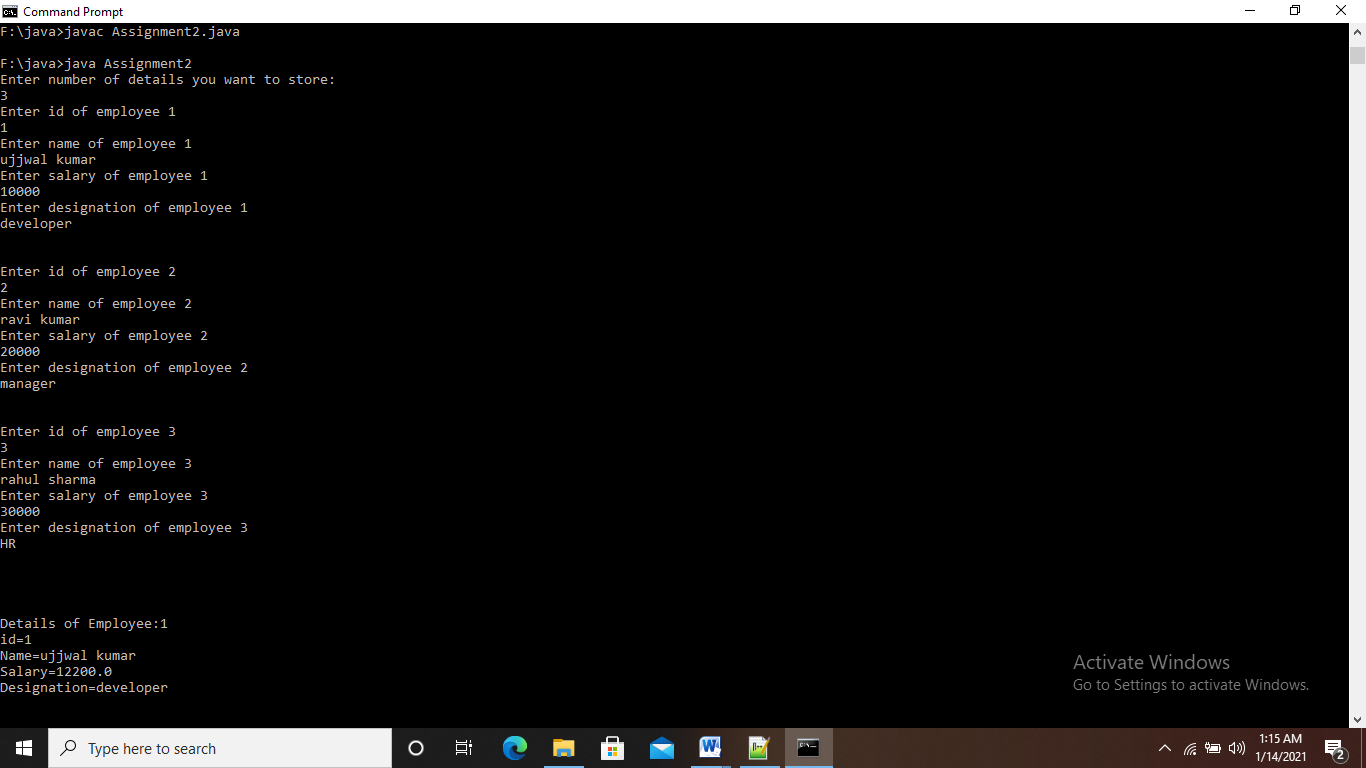
}

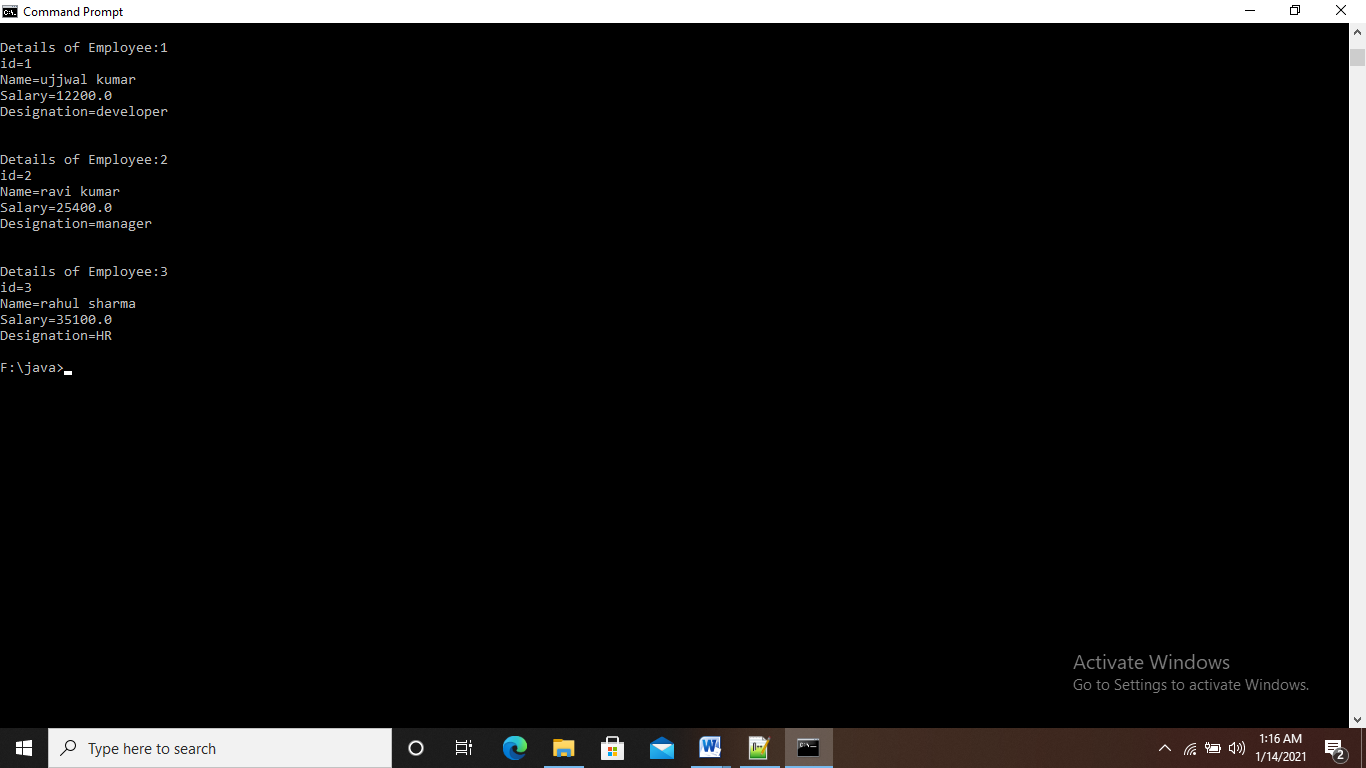
}

}

}

Output:





**Assignment 3**

Create EmployeeDetails class with 4 instance array variables.

EmployeeDetails() : memory size for array id,name,salary, desg must assign in constructor at run time.

read()

read all employee id,name,salary,desg

calSalary()

hra, da, pf local variables.

calculate salary

bonus()

apply bonus

display()

display details

EmployeeTest :

Main methods

Object creation

And calling all methods

Take n number records through keyboards as Id,Name,Salary,Desg

(array id,name,salary,Desg).

Salary = salary + hra + da – pf;

Hra is 10% salary

Da is 7 % salary

Pf 5 % salary

If desg is manager

15% bonus

If developer 10% bonus

Else

5 % bonus

Id, name, salary( grossSalary +bonus ) and desg

**Solution:**

import java.util.Scanner;

class EmployeeDetails

{

Scanner sc=new Scanner(System.in);

int n;

EmployeeDetails(int size)

{

n=size;

id=new int [size];

name=new String [size];

salary=new float [size];

salarycpy=new float[size];

desg=new String [size];

}

int []id;

String []name;

float []salary;

float []salarycpy;

String []desg;

//......................................................................

void read()

{

for(int i=0;i<n;i++)

{

System.out.println("Enter id of employee "+(i+1));

id[i]=sc.nextInt();

sc.nextLine();

System.out.println("Enter name of employee "+(i+1));

name[i]=sc.nextLine();

System.out.println("Enter salary of employee "+(i+1));

salary[i]=sc.nextFloat();

salarycpy[i]=salary[i];

sc.nextLine();

System.out.println("Enter designation of employee "+(i+1));

desg[i]=sc.nextLine();

System.out.println("\n");

}

}

//....................................................................

void calsalary()

{

for(int k=0;k<n;k++)

{

float hra,da,pf;

hra=salary[k]\*0.1f;

da=salary[k]\*0.07f;

pf=salary[k]\*0.05f;

salary[k]=salary[k]+hra+da-pf;

}

}

//.....................................................................

void bonus()

{

for(int k=0;k<n;k++)

{

salary[k]=salarycpy[k];

float hra,da,pf;

hra=salary[k]\*0.1f;

da=salary[k]\*0.07f;

pf=salary[k]\*0.05f;

if(desg[k].equals("manager"))

{

salary[k]=(salary[k]+hra+da-pf)+(salary[k]\*0.15f);

}

else if(desg[k].equals("developer"))

{

salary[k]=(salary[k]+hra+da-pf)+(salary[k]\*0.1f);

}

else

{

salary[k]=(salary[k]+hra+da-pf)+(salary[k]\*0.05f);

}

}

}

//.......................................................................

void display()

{

for(int k=0;k<n;k++)

{

System.out.println("Details of Employee:"+(k+1));

System.out.println("id="+id[k]);

System.out.println("Name="+name[k]);

System.out.println("Salary="+salary[k]);

System.out.println("Designation="+desg[k]);

System.out.println("\n");

}

}

}

//........................................................................

class EmployeeTest

{

public static void main(String args[])

{

Scanner sc=new Scanner(System.in);

System.out.println("Enter Number of records you want to store:");

int x=sc.nextInt();

EmployeeDetails empd=new EmployeeDetails(x);

empd.read();

empd.calsalary();

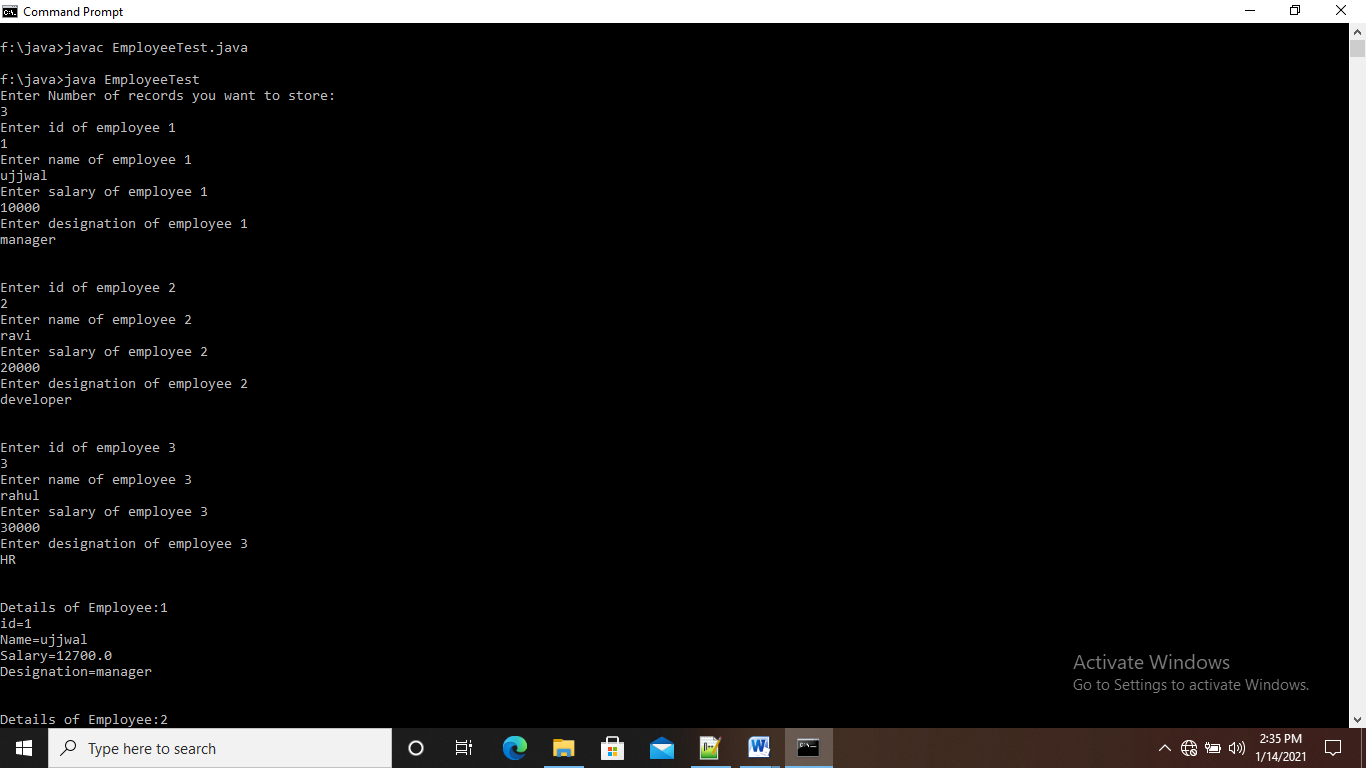
empd.bonus();

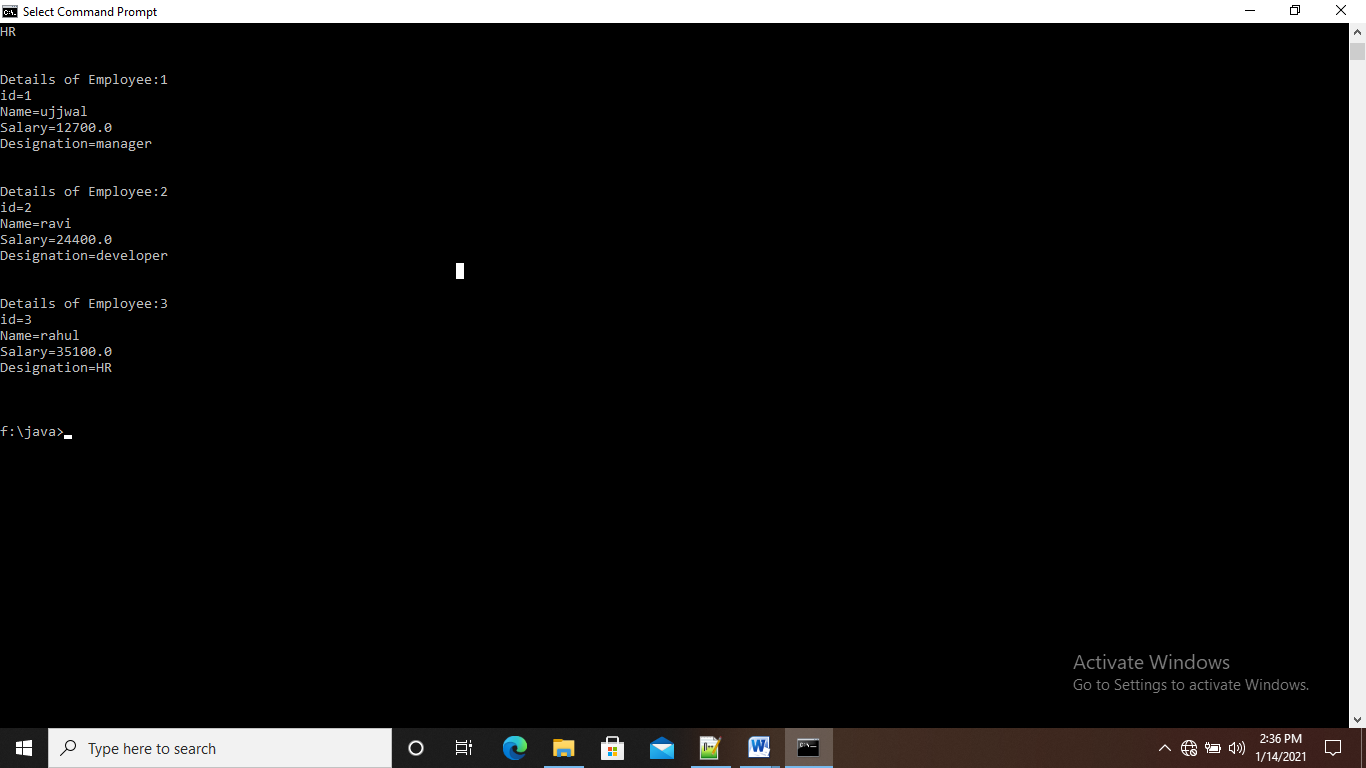
empd.display();

}

}

Output:





**Assignment 1**

do{

Online Examination

1:English , 2 : Math 3 : GK

switch() {

case 1

3 Q

case 2

3 Q

case 3

3 Q

}

Do want to continue ?

}while();

Result g\_total > 70

Result + 10

Result>=90 selected else try next time.

**Solution:**

import java.util.Scanner;

public class OnlineExam

{

public static void main(String args[])

{

System.out.println("Online Examination System");

Scanner sc=new Scanner(System.in);

int choice;

int c=0,d=0,e=0,n=3,marks1=0,marks2=0,marks3=0;

do{

System.out.println("Press 1 for English \nPress 2 for Maths \nPress 3 for GK ");

choice=sc.nextInt();

switch(choice)

{

case 1:if(c==0)

{

System.out.println("Welcome to English Examination");

System.out.println("1.Please,stop.....so many mistakes.");

System.out.println("1. to make\n2. make\n3. making\n4. makes");

int p1=sc.nextInt();

if(p1==3)

{

marks1=marks1+10;

}

else{

System.out.println("Wrong Answer.");

}

System.out.println("2.The English.....English");

System.out.println("1. speak\n2. spoke\n3. spoken\n4. is spoken");

int p2=sc.nextInt();

if(p2==1)

{

marks1=marks1+10;

}

else{

System.out.println("Wrong Answer.");

}

System.out.println("3.The rain comes.....the clouds.");

System.out.println("1. in\n2. near\n3. from\n4. under");

int p3=sc.nextInt();

if(p3==3)

{

marks1=marks1+10;

}

else{

System.out.println("Wrong Answer.");

}

System.out.println("This Section Completed successfully...");

c++;

n--;

break;

}

else{

System.out.println("You have already done this section");

break;

}

case 2:if(d==0)

{

System.out.println("Welcome to Maths Examination");

System.out.println("1.Can we write 0 in the form of p/q?");

System.out.println("1. Yes\n2. No\n3. Cannot be explained\n4. None of the above");

int q1=sc.nextInt();

if(q1==1)

{

marks2=marks2+10;

}

else{

System.out.println("Wrong Answer.");

}

System.out.println("2.Every rational number is:");

System.out.println("1. Whole number\n2. Natural number\n3. Integer\n4. Real number");

int q2=sc.nextInt();

if(q2==4)

{

marks2=marks2+10;

}

else{

System.out.println("Wrong Answer.");

}

System.out.println("3.If the coordinates of a point are(0,-4),then it lies in:");

System.out.println("1. X-axis\n2. Y-axis\n3. At origin\n4. Between x-axis and y-axis");

int q3=sc.nextInt();

if(q3==2)

{

marks2=marks2+10;

}

else{

System.out.println("Wrong Answer.");

}

System.out.println("This Section Completed successfully...");

d++;

n--;

break;

}

else{

System.out.println("You have already done this section");

break;

}

case 3:if(e==0)

{

System.out.println("Welcome to GK Examination");

System.out.println("1.Which is longest river in the world?");

System.out.println("1. Ganga\n2. Nile\n3. Amazon\n4. Niger");

int r1=sc.nextInt();

if(r1==2)

{

marks3=marks3+10;

}

else{

System.out.println("Wrong Answer.");

}

System.out.println("2.Which is the biggest continent in the world?");

System.out.println("1. North America\n2. Aisa\n3. Africa\n4. Australia");

int r2=sc.nextInt();

if(r2==2)

{

marks3=marks3+10;

}

else{

System.out.println("Wrong Answer.");

}

System.out.println("3.Which is india's first super computer?");

System.out.println("1. Param8000\n2. param80000\n3. param800\n4. param8");

int r3=sc.nextInt();

if(r3==1)

{

marks3=marks3+10;

}

else{

System.out.println("Wrong Answer.");

}

System.out.println("This Section Completed successfully...");

e++;

n--;

break;

}

else{

System.out.println("You have already done this section");

break;

}

default:System.out.println("invalied choice...");

}

if(n!=0)

{

System.out.println("Do you want to continue with another section?\nPress 1 for YES \nPress 2 for NO ");

int ch=sc.nextInt();

switch(ch)

{

case 1:System.out.println("YES");

break;

case 2:System.out.println("NO");

if(c==0 || d==0 || e==0)

{

System.out.println("You have not completed the Exam...Please Complete");

}

break;

default:System.out.println("invalied choice...");

}

}

else{

System.out.println("Exam Completed");

System.out.println("Thank You");

}

}while(n!=0);

int result=0;

System.out.println("Marks in english="+marks1);

System.out.println("Marks in maths="+marks2);

System.out.println("Marks in GK="+marks3);

int totalmarks=marks1+marks2+marks3;

System.out.println("Total Marks="+totalmarks);

if(totalmarks>=70)

{

result=totalmarks+10;

System.out.println("Final Marks="+result);

}

if(result>=90)

{

System.out.println("Congratulations. You are Selected");

}

else{

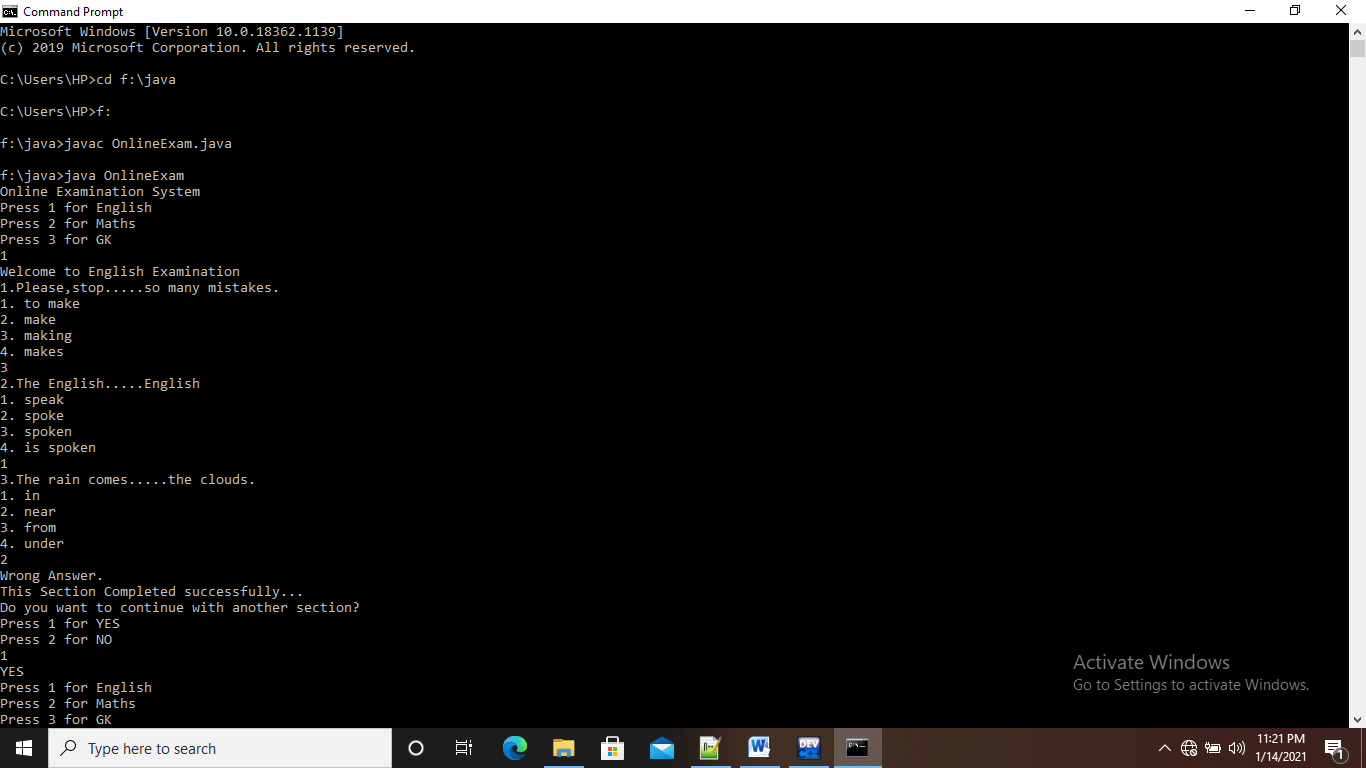
System.out.println("Sorry, not passed. Please try next time");

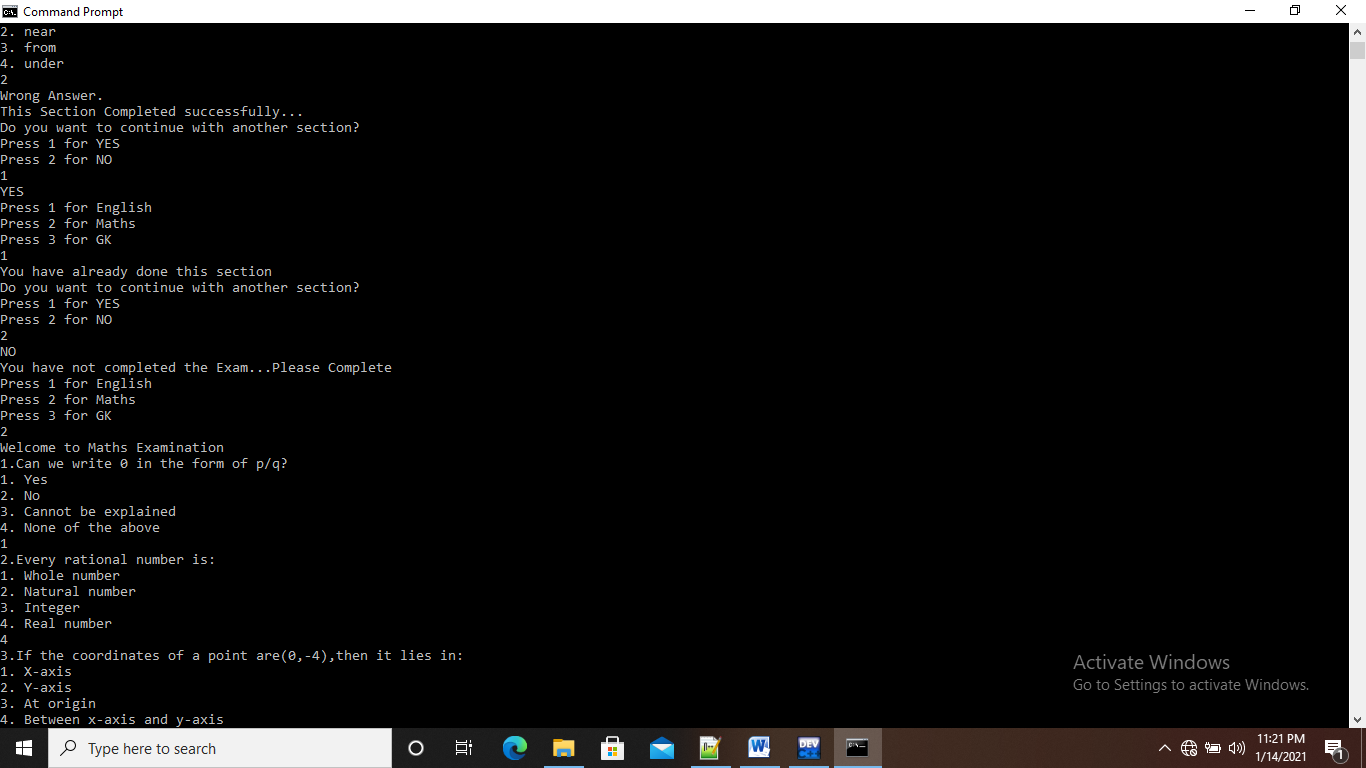
}

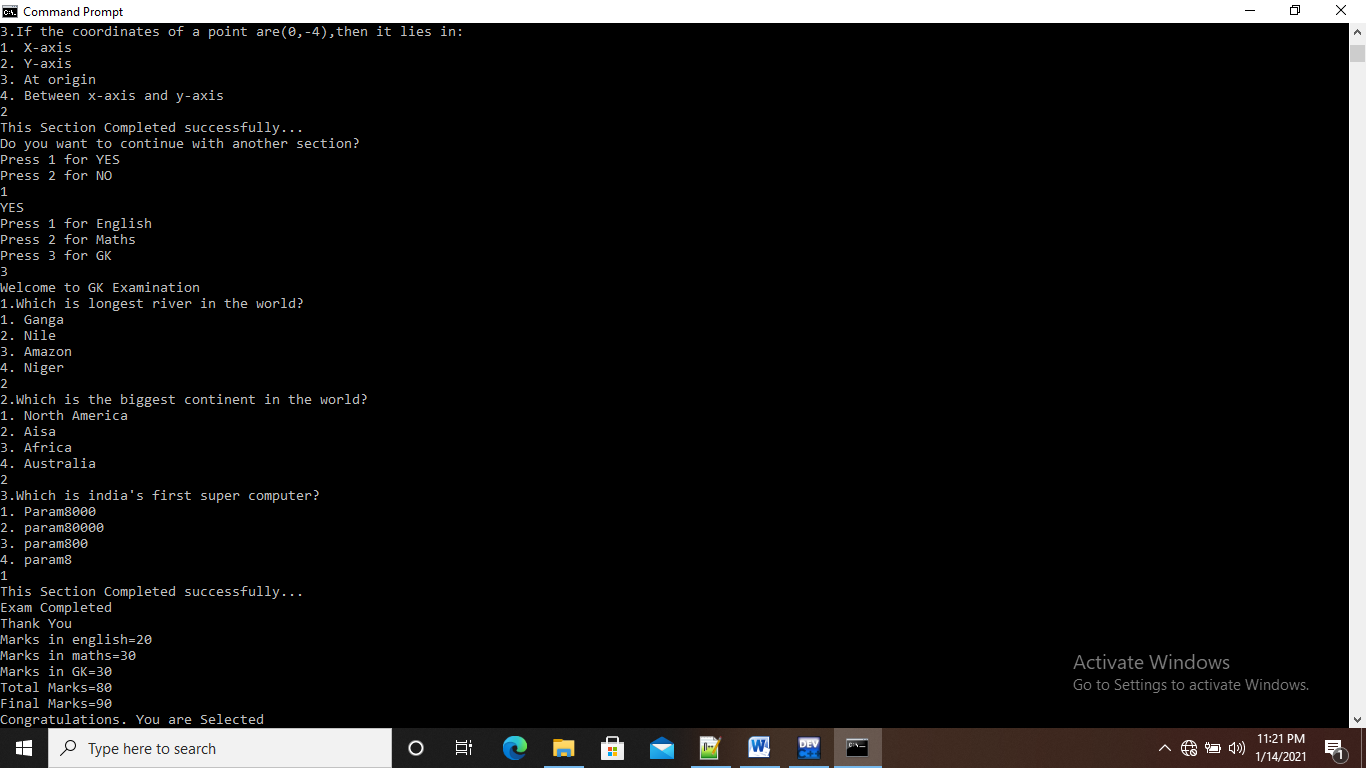
}

}

**Output:**

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****

****

**Day 4 Assignment:**

**Assignment 4:**

Manager / Programmer is a Employee

Employee has a Address

class Employee { super class must be generic

id,name,salary

Scanner obj = new Scanner(System.in);

Address add = new Address();

methods

read() id,name,salary

, calSalary() : hra, da and pf

dislay()

}

class Manager extends Employee { sub must be specific

numberOfEmp : numbers

readMgr() numberOfEmp

add.readAdd();

disMgr();

numberOfEmp

add.disAdd();

}

class Programmer extends Employee{ sub must be specific

projectName: string

readPrg()

projectName

add.readAdd();

disPrg();

}

class Address {

city, state, pinCode

Scanner obj = new Scanner();

readAdd()

read city,state and pincode

disAdd();

city, state and pincode

}

EmployeeTest

Main Don’t create the Employee class object.

S.O.P(ManagerDetails);

Manager mgr

mgr.read() 3 details

mgr.readMgr() 1 own details, 3 address details

S.O.P(ProgramerDetails)

Programmer prg

prg.read()

prg.readPrg()

mgr.calSalary();

prg.calSalary()

Display Manager and Programmer details.

**Solution:**

import java.util.Scanner;

class Employee

{

int id;

String name;

float salary;

Scanner sc=new Scanner(System.in);

Address add=new Address();

void read()

{

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

id=sc.nextInt();

sc.nextLine();

System.out.println("Enter Name:");

name=sc.nextLine();

System.out.println("Enter salary:");

salary=sc.nextFloat();

}

void calsalary()

{

float hra,da,pf;

hra=salary\*0.1f;

da=salary\*0.07f;

pf=salary\*0.05f;

salary=salary+hra+da-pf;

}

void display()

{

System.out.println("\n");

System.out.println("Id="+id);

System.out.println("name="+name);

System.out.println("salary="+salary);

}

}

//..........................................................................

class Manager extends Employee

{

int number;

void readmgr()

{

System.out.println("Enter Number of Employee:");

number=sc.nextInt();

add.readadd();

}

void dismgr()

{

System.out.println("Number of Employee="+number);

add.disadd();

}

}

//.......................................................................

class Programmer extends Employee

{

String projectname;

void readprg()

{

sc.nextLine();

System.out.println("Enter name of project:");

projectname=sc.nextLine();

add.readadd();

}

void disprg()

{

System.out.println("Project="+projectname);

add.disadd();

}

}

//.......................................................................

class Address

{

String city,state;

int pincode;

Scanner obj=new Scanner(System.in);

void readadd()

{

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

city=obj.nextLine();

System.out.println("Enter state:");

state=obj.nextLine();

System.out.println("Enter pincode:");

pincode=obj.nextInt();

}

void disadd()

{

System.out.println("city="+city);

System.out.println("state="+state);

System.out.println("pincode="+pincode);

}

}

//.......................................................................

class Employeetesting

{

public static void main(String args[])

{

System.out.println("Manager Details");

Manager mgr=new Manager();

mgr.read();

mgr.readmgr();

System.out.println("Programmer Details");

Programmer prg=new Programmer();

prg.read();

prg.readprg();

mgr.calsalary();

prg.calsalary();

mgr.display();

mgr.dismgr();

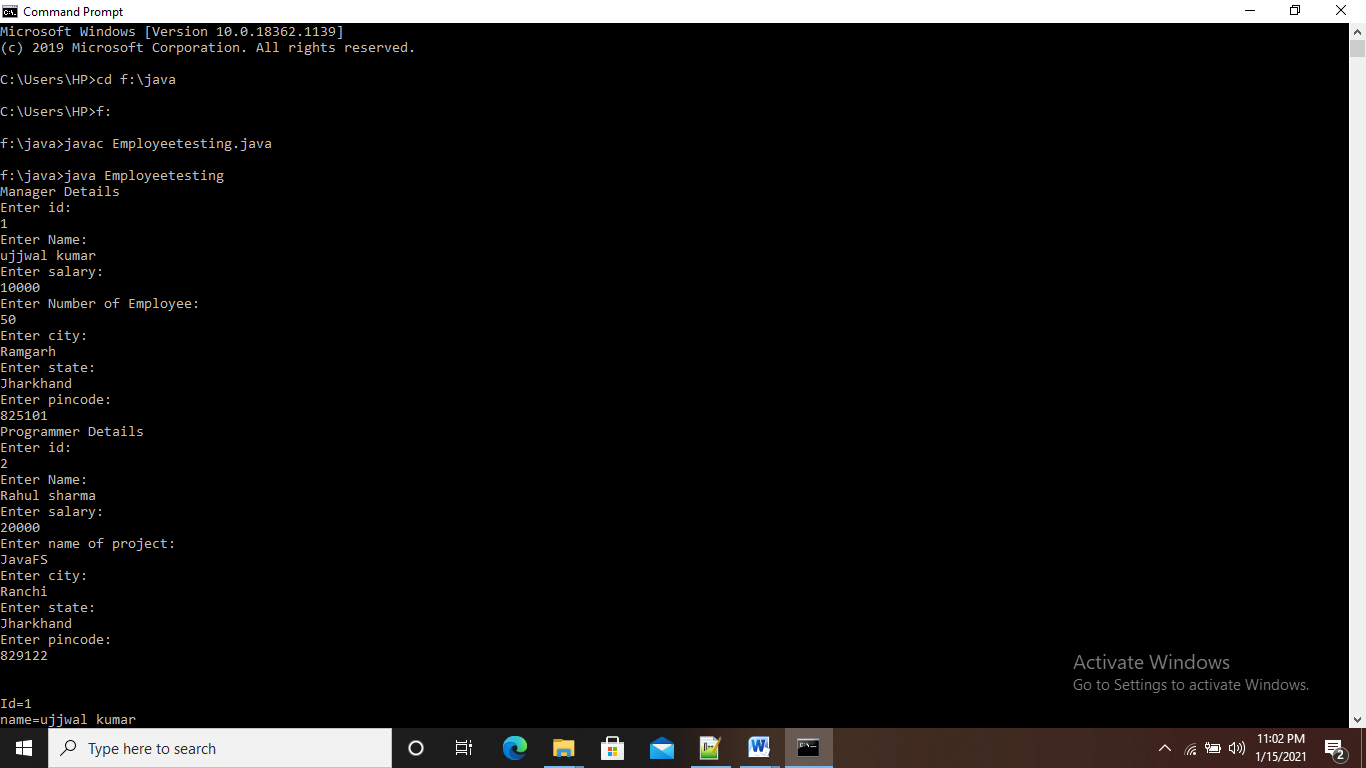
prg.display();

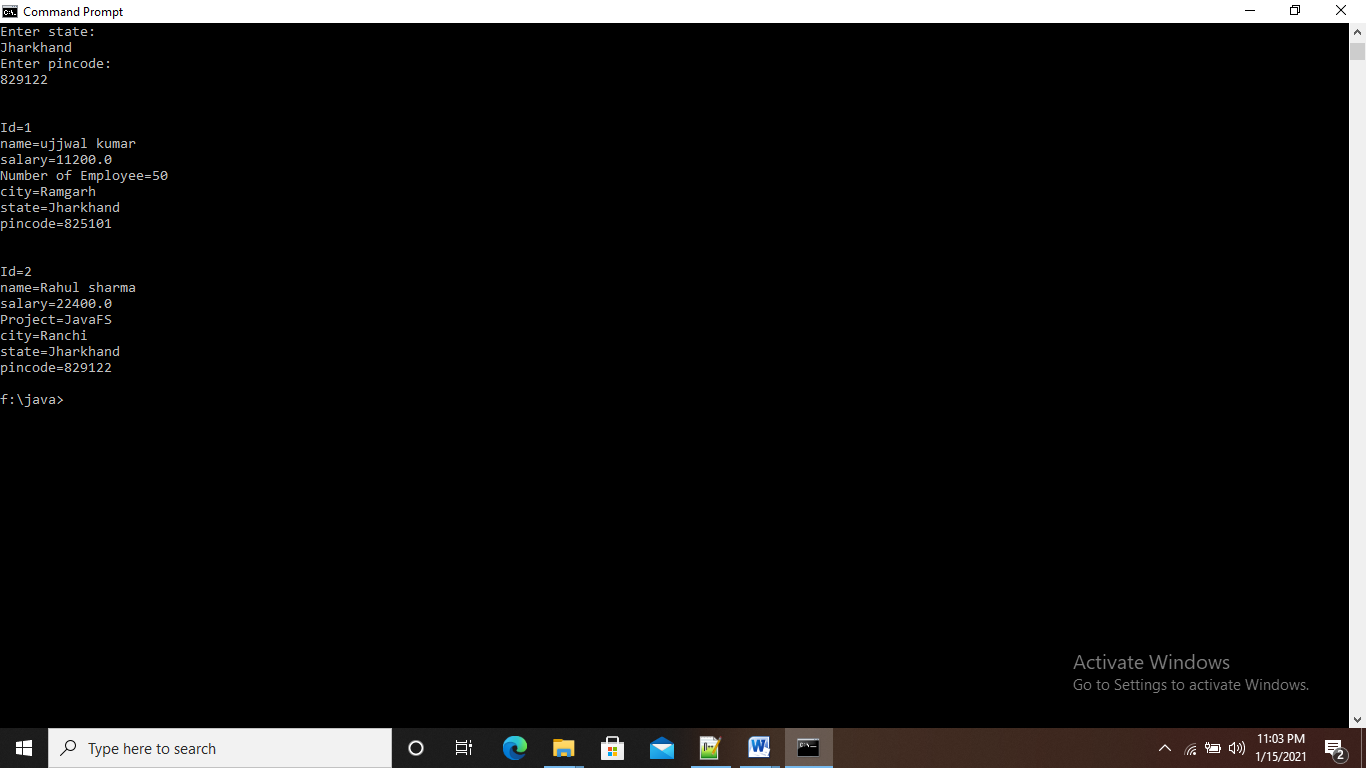
prg.disprg();

}

}

**Output:**

****

****

**Assignment 5:**

import java.util.Scanner;

class Student

{

int id;

String name;

int age;

int []marks=new int[4];

char g;

Scanner sc=new Scanner(System.in);

void read()

{

System.out.println("Enter Details of student:");

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

id=sc.nextInt();

sc.nextLine();

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

name=sc.nextLine();

System.out.println("Enter age:");

age=sc.nextInt();

System.out.println("Enter marks of Phy, che, maths, bio:");

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

{

marks[i]=sc.nextInt();

}

}

void calgrade()

{

int total=0,avg;

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

{

total=total+marks[i];

}

avg=total/4;

if(avg>90)

g='A';

else if(avg>80)

g='B';

else if(avg>70)

g='C';

else if(avg>55)

g='D';

else

g='E';

}

void display()

{

System.out.println("id="+id);

System.out.println("name="+name);

System.out.println("age="+age);

System.out.println("Grade="+g);

}

}

class StudentTest

{

public static void main(String args[])

{

Scanner sc=new Scanner(System.in);

System.out.println("How many student details you want to store");

int n=sc.nextInt();

Student std[]=new Student[n];

for(int i=0;i<n;i++)

{

std[i]=new Student();

std[i].read();

}

for(int i=0;i<n;i++)

{

std[i].calgrade();

}

for(int i=0;i<n;i++)

{

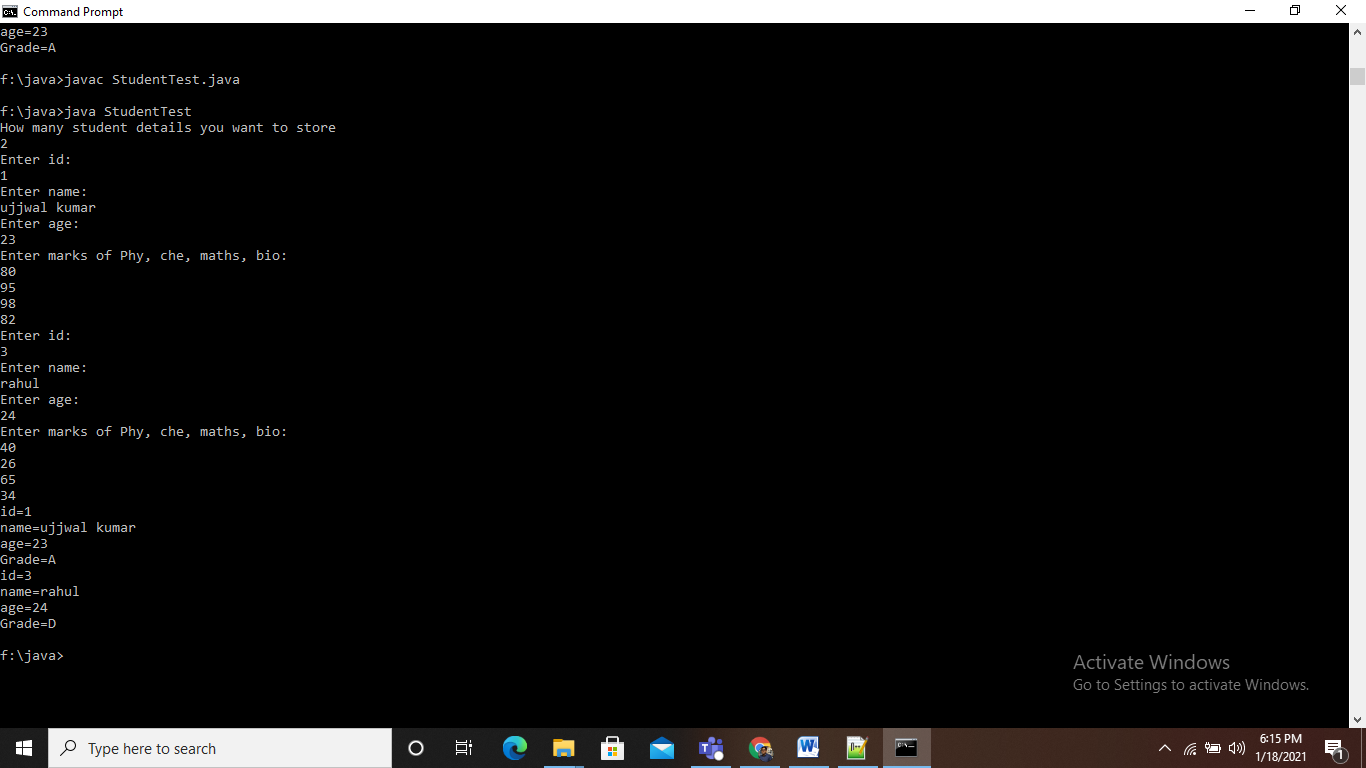
std[i].display();

}

}

}

**Output:**

****

**Assignment 6:** BankApplication

import java.util.Scanner;

package com.service;

import com.bean.Account;

abstract class AccountInitialization

{

public static int accountcount=0,accountcount1=0,i=0,j=0;

public static int accno=100;

public static int accno1=100;

public String name;

public int amount;

public Account accounts[]=new Account[10];

void accountcreate()

{

if(accountcount<10)

{

name="Unknown";

amount=500;

accounts[i]=new Account(accno,name,amount);

accno++;

i++;

accountcount++;

}

else

{

accountcount1=1;

System.out.println("Account Limit exceed.");

}

}

void accountcreate(String name,int amount)

{

if(accountcount1<10)

{

if(amount>500)

{

this.name=name;

this.amount=amount;

accounts[j].setaccno(this.accno1);

accounts[j].setname(this.name);

accounts[j].setamount(this.amount);

System.out.println("Name="+accounts[j].getname());

System.out.println("Account Number="+accounts[j].getaccno());

System.out.println("Amount="+accounts[j].getamount());

accountcount1++;

accno1++;

j++;

}

else

{

System.out.println("Amount should be greater than 500.");

}

}

else

{

System.out.println("Account Limit exceed.");

}

}

abstract void transfer(int fromaccno,int toaccno,int amount);

}

package com.service;

interface Bank

{

void withdraw(int accno,int amount);

void deposit(int accno,int amount);

void checkbalance(int accno);

}

package com.bean;

class Account

{

private int accno;

private String name;

private int amount;

public Account(int accno, String name, int amount)

{

this.accno=accno;

this.name=name;

this.amount=amount;

}

public void setname(String name)

{

this.name=name;

}

public void setaccno(int accno)

{

this.accno=accno;

}

public void setamount(int amount)

{

this.amount=amount;

}

public String getname()

{

return name;

}

public int getaccno()

{

return accno;

}

public int getamount()

{

return amount;

}

}

class MyException extends Exception

{

MyException()

{

super();

}

MyException(String msg)

{

super(msg);

}

}

package com.service;

class MyBank extends AccountInitialization implements Bank

{

public void transfer(int fromaccno, int toaccno,int amount)

{

if(accountcount!=0)

{

for(i=0;i<10;i++)

{

try

{

if(accounts[i].getaccno()==fromaccno)

{

for(int j=0;j<10;j++)

{

try

{

if(accounts[j].getaccno()==toaccno)

{

if(accounts[i].getamount()-amount>500)

{

accounts[i].setamount(accounts[i].getamount()-amount);

accounts[j].setamount(accounts[j].getamount()+amount);

break;

}

else

{

System.out.println("Minimum balance 500 should be maintained.");

}

}

throw new MyException("to account number not matched");

}

catch(MyException e)

{

System.out.println(e.toString());

break;

}

}

break;

}

throw new MyException("from account number not matched");

}

catch(MyException e){

System.out.println(e.toString());

break;

}

}

}

else

{

System.out.println("Account is not created. Create Your account first");

}

}

public void withdraw(int accno1,int amount1)

{

if(accountcount!=0)

{

for(int i=0;i<10;i++)

{

try

{

if(accounts[i].getaccno()==accno1)

{

if((accounts[i].getamount()-amount1)>500)

{

accounts[i].setamount(accounts[i].getamount()-amount1);

System.out.println("Amount withdrawn successfully");

break;

}

else

{

System.out.println("Minimum balance 500 should be maintained.");

}

}

throw new MyException("Account mismatch");

}

catch(MyException e){

System.out.println(e.toString());

break;

}

}

}

else

{

System.out.println("Account is not Created. Create your account first.");

}

}

public void deposit(int accno1, int amount1)

{

if(accountcount!=0)

{

for(int i=0;i<10;i++)

{

try

{

if(accounts[i].getaccno()==accno1)

{

if(amount1<50000)

{ accounts[i].setamount(accounts[1].getamount()+amount1);

System.out.println("Amount Deposited successfully.");

}

else

{

System.out.println("Amount is more than 50000. Pancard is compulsary.");

break;

}

}

throw new MyException("Account mismatch");

}

catch(MyException e){

System.out.println(e.toString());

break;

}

}

}

else

{

System.out.println("Account is not created. create your account first.");

}

}

public void checkbalance(int accno1)

{

if(accountcount!=0)

{

for(int i=0;i<10;i++)

{

try

{

if(accounts[i].getaccno()==accno1)

{

System.out.println("Available Balance:"+accounts[i].getamount());

break;

}

throw new MyException("Account mismatch");

}

catch(MyException e){

System.out.println(e.toString());

break;

}

}

}

else

{

System.out.println("Account is not Created. Create your account first.");

}

}

}

import com.service.MyBank;

class BankTestApp

{

public static void main(String args[])

{

System.out.println("Welcome to Bank Application");

Scanner sc=new Scanner(System.in);

String name;

boolean value=true;

int accno, toaccno,amount;

MyBank mybank=new MyBank();

do

{

System.out.println("Press 1 for Create Account\nPress 2 for check Account Balance\nPress 3 for withdraw the amount\nPress 4 for Deposit\nPress 5 for Transfer\nPress 6 for exit the Application: ");

int choose= sc.nextInt();

switch(choose)

{

case 1:

System.out.println("Press 1 for Default details\nPress 2 for name and Amount pass:");

int ch=sc.nextInt();

switch(ch)

{

case 1: mybank.accountcreate();

break;

case 2: System.out.println("Enter Name:");

name=sc.next();

System.out.println("Enter amount:");

amount=sc.nextInt();

mybank.accountcreate(name,amount);

break;

default:

System.out.println("Invalied choice.");

}

case 2: System.out.println("For Check Balance");

System.out.println("Enter Account Number:");

accno=sc.nextInt();

mybank.checkbalance(accno);

break;

case 3: System.out.println("Withdraw Money");

System.out.println("Enter Account Number:");

accno=sc.nextInt();

System.out.println("Enter Amount:");

amount=sc.nextInt();

mybank.withdraw(accno,amount);

break;

case 4: System.out.println("Deposit Money");

System.out.println("Enter Account Number:");

accno=sc.nextInt();

System.out.println("Enter Amount:");

amount=sc.nextInt();

mybank.deposit(accno,amount);

break;

case 5: System.out.println("Transfer Money");

System.out.println("Enter Your Account Number:");

accno=sc.nextInt();

System.out.println("Enter Account Number to be transfered:");

toaccno=sc.nextInt();

System.out.println("Enter Amount to be transfered:");

amount=sc.nextInt();

mybank.transfer(accno,toaccno,amount);

break;

case 6: System.out.println("Thank you for using this bank");

value=false;

break;

default:

System.out.println("invalied choice.");

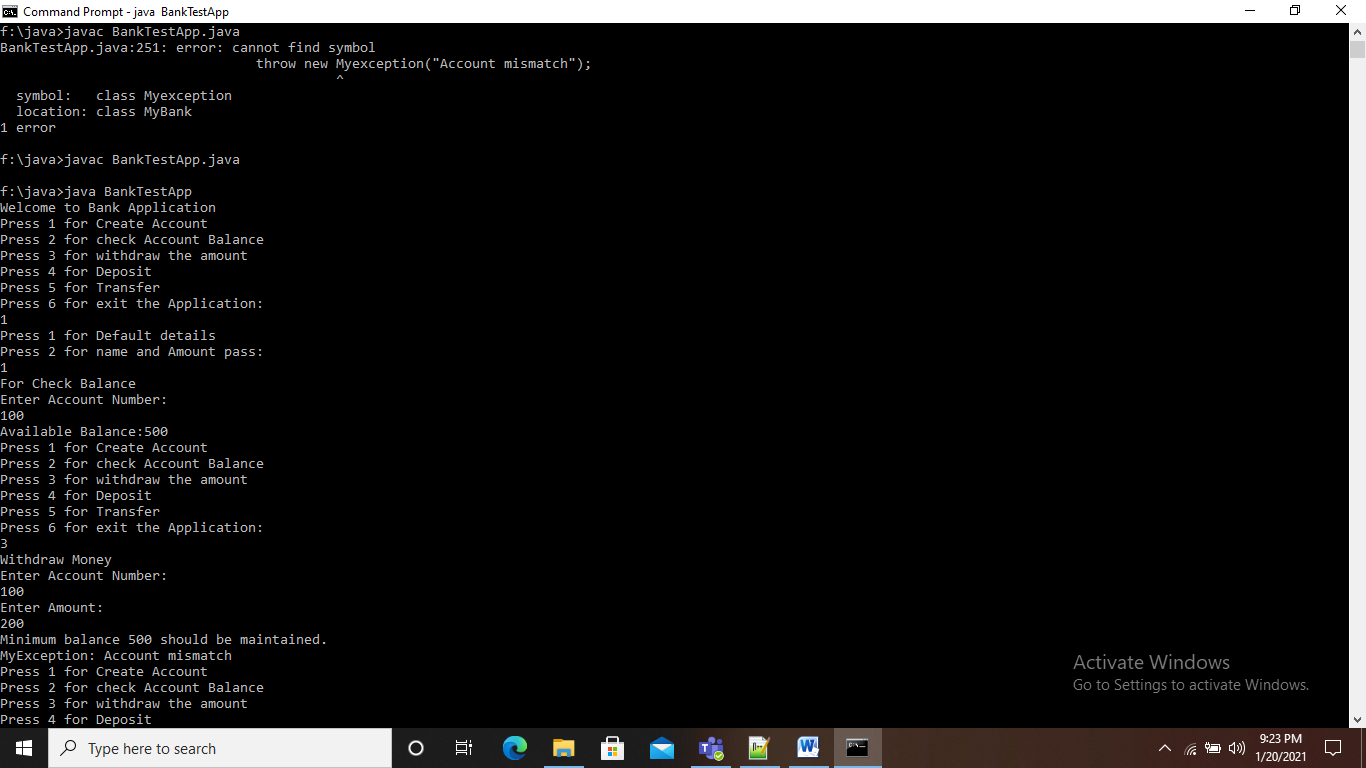
}

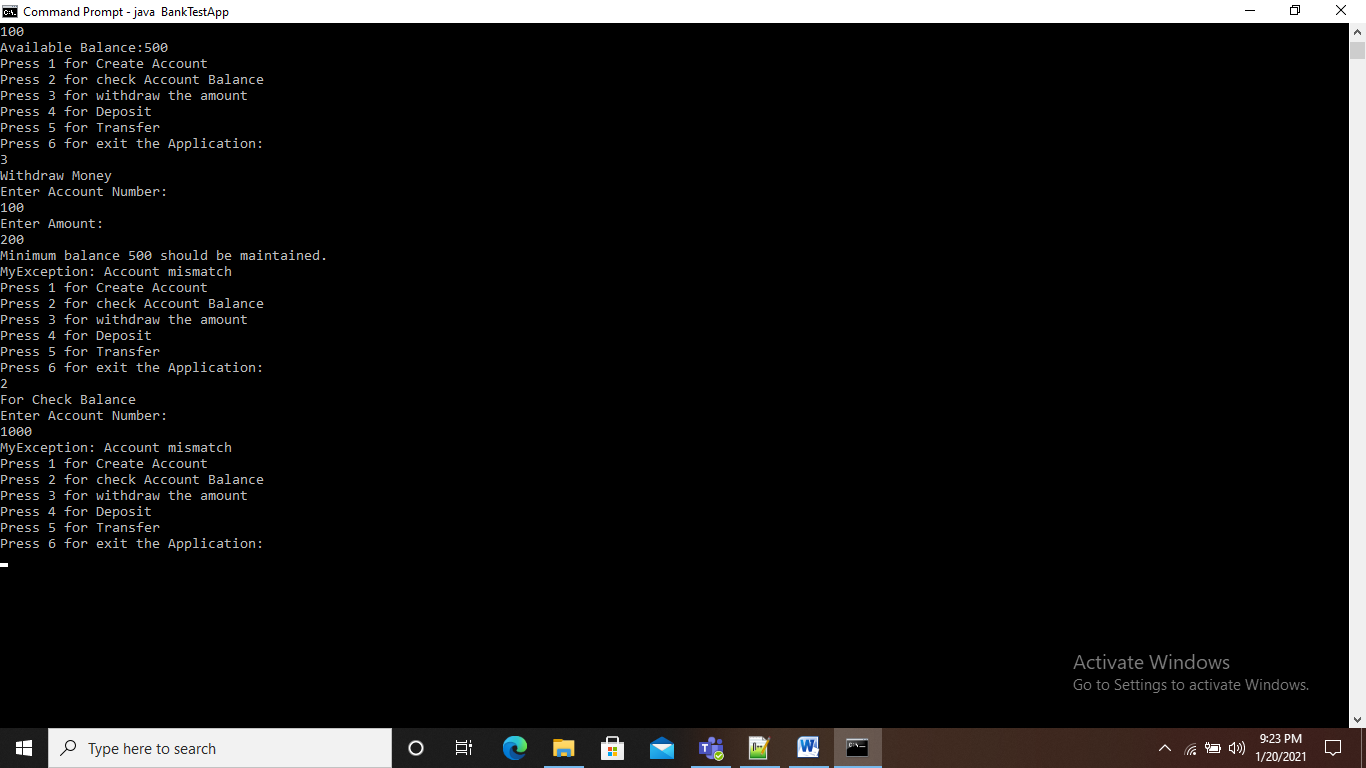
}while(value);

}

}

**Output:**

****

****

**Day 7: (19/01/2021)**

**Assignment 7:**

Take n number of names through keywords and display those names in ascending or descending order. (Ignore case sensitive).

String names[]={“Raj”,”ravi”,”Akash”,”ajay”};

**Solution:**

public class StringDemo {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

System.out.println("Enter number of strings:");

int n=sc.nextInt();

String []str=new String[n];

System.out.println("Enter strings:");

for(int i=0;i<n;i++)

{

str[i]=sc.next();

}

for(int i=0;i<n;i++)

{

for(int j=0;j<n;j++)

{

String str1 = str[i];

String str2 = str[j];

int c=str1.compareToIgnoreCase(str2);

if(c<0)

{

String str3=str[j];

str[j]=str[i];

str[i]=str3;

}

}

}

for(int i=0;i<n;i++)

{

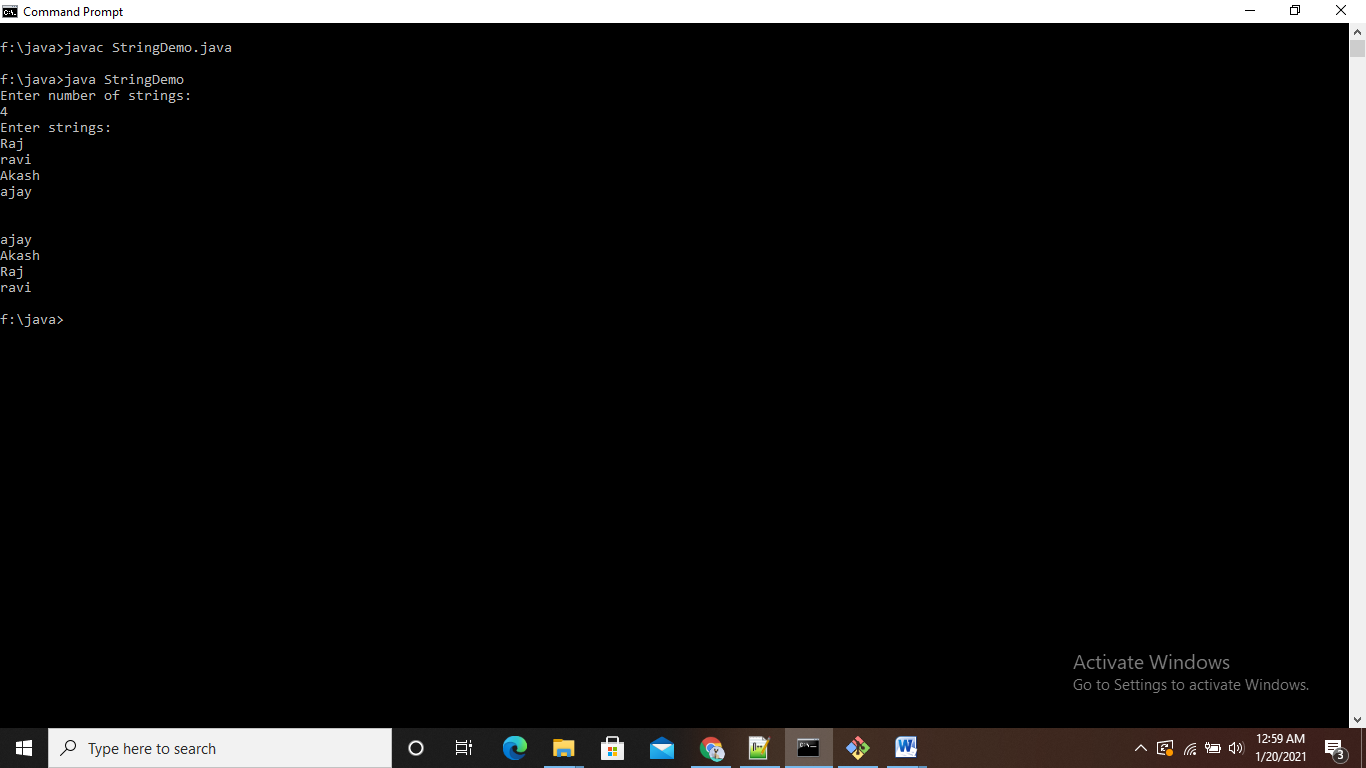
System.out.println(str[i]);

}

}

}

**Output:**

****