//Q 1 WAP using parameterized constructor with two parameters id and name. While creating the objects obj1 and obj2

// passed two arguments so that this constructor gets invoked after creation of obj1 and obj2

**package** com.day3;

**import** java.util.Scanner;

**public** **class** Assignment3\_1 {

**int** id;

String name;

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

Assignment3\_1(){

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

**int** i=s.nextInt();

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

String n=s.next();

System.***out***.println("Id is: "+i+" and name is "+n);

}

Assignment3\_1(**int** i,String n){

System.***out***.println("Id is: "+i+" and name is "+n);

}

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

Assignment3\_1 a31=**new** Assignment3\_1(20,"sudhakar"); //Parameterized constructor

Assignment3\_1 a31\_2=**new** Assignment3\_1();//Non-Parameterized constructor

}

}

OutPut:

Id is: 20 and name is sudhakar

Enter Id:

35

Enter name:

sud

Id is: 35 and name is sud

//Q 2 Write a program by creating an 'Employee' class having the following methods and print the final salary.

//1 - 'getInfo()' which takes the salary, number of hours of work per day of employee as parameter

//2 - 'AddSal()' which adds 10000 to salary of the employee if it is less than 50000.

//3 - 'AddWork()' which adds 5000 to salary of employee if the number of hours of work per day is more than 6 hours.

**package** com.day3;

**import** java.util.Scanner;

**class** Employee{

**float** salary;

**int** hours;

Scanner s=**new** Scanner(System.***in***);//System.in takes input from the user

**void** getinfo() {

System.***out***.println("Enter Salary of an Employee: ");

salary=s.nextFloat();

System.***out***.println("Enter number of working hours: ");

hours=s.nextInt();

}

**void** AddSal() {

**if**(salary<50000) {

System.***out***.println("which adds 10000 to salary of the employee if it is less than 50000.");

salary=salary+10000;

System.***out***.println("new Salary: "+salary);

}

}

**void** AddWork() {

**if**(hours>6) {

System.***out***.println("which adds 5000 to salary of employee if the number of hours of work per day is more than 6 hours.");

salary=salary+5000;

System.***out***.println("new Salary: "+salary);

}

}

}

**public** **class** Assignment3\_2 {

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

Employee e=**new** Employee();

e.getinfo();

e.AddSal();

e.AddWork();

}

}

Enter Salary of an Employee:

25000

Enter number of working hours:

8

which adds 10000 to salary of the employee if it is less than 50000.

new Salary: 35000.0

which adds 5000 to salary of employee if the number of hours of work per day is more than 6 hours.

new Salary: 40000.0

//Q 3 Write a program to create a room class, the attributes of this class is roomno, roomtype,

//roomarea and ACmachine. In this class the member functions are setdata and displaydata.

**package** com.day3;

**import** java.util.Scanner;

**class** Room{

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

**int** roomno;

String roomtype;

**float** roomarea;

String ACmachine;

**void** setdata() {

System.***out***.println("Enter room number: ");

roomno=s.nextInt();

System.***out***.println("Enter room type: ");

roomtype=s.next();

System.***out***.println("Enter room area: ");

roomarea=s.nextFloat();

System.***out***.println("Is ACmachine available in the room? (Enter Yes or No: ");

ACmachine=s.next();

}

**void** displaydata() {

System.***out***.println("room number: "+roomno);

System.***out***.println("room type: "+roomtype);

System.***out***.println("room area: "+roomarea);

System.***out***.println("Ac Machine available: "+ACmachine);

}

}

**public** **class** Assignment3\_3 {

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

Room r1=**new** Room();

r1.setdata();

r1.displaydata();

}

}

Enter room number:

25

Enter room type:

luxury

Enter room area:

150

Is ACmachine available in the room? (Enter Yes or No:

yes

room number: 25

room type: luxury

room area: 150.0

Ac Machine available: yes

//Q4 Write a program create a class ‘simpleobject‘. Using constructor display the message.

**package** com.day3;

**class** Simpleobject{

Simpleobject(){

System.***out***.println("Non parameterized constructor is instantiated.");

}

}

**public** **class** Assignment3\_4 {

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

Simpleobject s1=**new** Simpleobject();

}

}

Non parameterized constructor is instantiated.

//Q 5 Design a class to represent bank account. Include members:

//a. Data members

//i. Name of depositor

//ii. Account number

//iii. Type of account

//iv. Balance amount

//b. Methods

//i. To assign value

//ii. To deposit amount

//iii. To withdraw amount

//iv. To display name and balance .

**package** com.day3;

**import** java.util.Scanner;

**class** BankAccount{

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

String name;

**int** accountNumber;

String typeOfAccount;

**float** balanceAmount;

**void** assignValue() {

System.***out***.println("Enter name of account holder: ");

name=s.next();

System.***out***.println("Enter Account number of account holder: ");

accountNumber=s.nextInt();

System.***out***.println("Enter account type of account holder: (SA or CA) ");

typeOfAccount=s.next();

}

**void** depositAmount() {

**int** choice=0;

System.***out***.println("Do you want to deposit(Enter 1 to deposit amount or other than 1 to exit): ");

choice=s.nextInt();

**if**(choice==1) {

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

balanceAmount=s.nextFloat();

System.***out***.println("Balance Amount after deposit: "+balanceAmount);

}

}

**void** withdrawAmount() {

**int** choice=0;

System.***out***.println("Do you want to withdraw (Enter 1 to withdraw amount or other than 1 to exit): ");

choice=s.nextInt();

**if**(choice==1) {

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

**float** withdraw=s.nextFloat();

**if**(withdraw<=balanceAmount) {

balanceAmount-=withdraw;

System.***out***.println("Balance Amount after withdrawal: "+balanceAmount);

}

**else** {

System.***out***.println("You can not withdraw more than Balance Amount. ");

}

}

}

**void** accountDetailsDisplay() {

System.***out***.println("\nname of account holder: "+name);

System.***out***.println("Account number of account holder: "+accountNumber);

System.***out***.println("Account type of account holder:"+typeOfAccount);

System.***out***.println("Balance Amount: "+balanceAmount);

}

}

**public** **class** Assignment3\_5 {

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

BankAccount b1= **new** BankAccount();

b1.assignValue();

b1.depositAmount();

b1.withdrawAmount();

b1.accountDetailsDisplay();

}

}

Enter name of account holder:

om

Enter Account number of account holder:

123456

Enter account type of account holder: (SA or CA)

SA

Do you want to deposit(Enter 1 to deposit amount or other than 1 to exit):

1

Enter Amount to be deposited:

25000

Balance Amount after deposit: 25000.0

Do you want to withdraw (Enter 1 to withdraw amount or other than 1 to exit):

1

Enter Amount to be withdrawn:

5000

Balance Amount after withdrawal: 20000.0

name of account holder: om

Account number of account holder: 123456

Account type of account holder:SA

Balance Amount: 20000.0

//Q 6 Create a class named 'StudentRecord' with String variable 'sname' and integer variable 'roll\_no'.

//Assign the value of roll\_no as '2' and that of name as "John" while creating an object of the class Student.

//and using display method show all values on console

**package** com.day3;

**import** java.util.Scanner;

**class** StudentRecord{

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

String sname;

**int** roll\_no;

**void** setData() {

System.***out***.print("Enter Student name: ");

sname=s.next();

System.***out***.print("Enter roll\_no: ");

roll\_no=s.nextInt();

}

**void** display() {

System.***out***.println("Student name: "+sname);

System.***out***.println("roll\_no: "+roll\_no);

}

}

**public** **class** Assignment3\_6 {

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

StudentRecord s1= **new** StudentRecord();

s1.setData();

s1.display();

}

}

Enter Student name: om

Enter roll\_no: 123

Student name: om

roll\_no: 123

//7.wap to ask 6 employee record from user using get and display method show

// record on console after performing sorting on record on basis of employee id.

package com.Assignments;

import java.util.Scanner;

//object of array type

class Emp

{

int empid;

String name;

void get()

{

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

System.***out***.println("enter employee id");

empid= s.nextInt();

System.***out***.println("enter employee name");

name= s.next();

}

void display()

{

System.***out***.println(empid +" "+ name);

}

void sort(Emp k[])

{

Emp temp= new Emp();

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

{

for(int j=0;j<k.length-1-i;j++)

{

if(k[j].empid>k[j+1].empid)

{

temp= k[j];

k[j]= k[j+1];

k[j+1]= temp;

}

}

}

}

}

public class Assignment3\_7 {

public static void main(String[] args) {

Emp e[] = new Emp[6]; // here we are creating 6 references

for(int i=0;i<6;i++)

{

e[i]= new Emp();

e[i].get();

}

Emp k= new Emp();

k.sort(e);

for(int i=0;i<6;i++)

{

e[i].display();

}

}

}

enter employee id

101

enter employee name

f

enter employee id

22

enter employee name

e

enter employee id

55

enter employee name

d

enter employee id

96

enter employee name

c

enter employee id

2

enter employee name

b

enter employee id

1555

enter employee name

a

2 b

22 e

55 d

96 c

101 f

1555 a

//Q 8 wap to perform addition of two three and fourth integer numbers

//using functions (use polymorphism)

package com.Assignments;

class Polymor{

int sum(int a,int b) {return a+b;}

int sum(int a,int b,int c) {return a+b+c;}

int sum(int a,int b,int c,int d) {return a+b+c+d;}

}

public class Assignment3\_8 {

public static void main(String[] args) {

Polymor p=new Polymor();

System.***out***.println("Two integers sum: "+p.sum(1, 2));

System.***out***.println("Three integers sum: "+p.sum(1, 2,3));

System.***out***.println("Four integers sum: "+p.sum(1, 2,3,4));

}

}

Two integers sum: 3

Three integers sum: 6

Four integers sum: 10

//Q 9 Write a JAVA program which contains a method square() such that square(3) returns 9,

//square(0.2) returns 0.04.

package com.Assignments;

import java.io.\*;

class Square{

void square(int a) {

System.***out***.println("Sqare of "+a+" : "+a\*a);

}

void square(double a) {

System.***out***.print("Sqare of "+a+" : ");

System.***out***.format("%.2f",a\*a);

}

}

public class Assignment3\_9 {

public static void main(String[] args) {

Square s1=new Square();

s1.square(3);

s1.square(0.2);

}

}

Sqare of 3 : 9

Sqare of 0.2 : 0.04