CSA-0963 JAVA PROGRAMMING

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INHERITENCE PROBLEMS

1.Write a java program to create a class name a “bankaccount” with the methods called deposit() and withdraw ().create a subclass called savingsaccount that overrides the withdraw() method to present withdrawls.if the account is fall below 100

Program:

```
import java.io.*;
import java.util.Scanner;
class BankAccount {
int cash;
   int balance=500, amount;
   void deposit() {
System.out.println("Enter the amount to deposit:");
Scanner s = new Scanner(System.in);
int dep = s.nextInt();
balance = balance+ dep;
System.out.println("Total balance in account: " + balance);
   }
void withdraw() {
 System.out.println("the balance in acc:"+balance);
}
}
public class Savings extends BankAccount {
void withdraw(){
```

```
System.out.println("Enter amount to withdraw:");
    Scanner sc = new Scanner(System.in);
   int cash = sc.nextInt();
   balance=balance-cash;
 System.out.println("the updated balance in acc:"+balance);
if (balance <= 100) {
          System.out.println("Insufficient balance");
       }
else {

    System.out.println("Remaining balance after withdrawal: " + balance);
       }
}
    public static void main(String[] args) {
       Savings s = new Savings();
       s.deposit();
       s.withdraw();
    }
}
```

Output:

```
C:\Users\gowth\OneDrive\문서\java>java Savings
Enter the amount to deposit:
1000
Total balance in account: 1500
Enter amount to withdraw:
500
the updated balance in acc:1000
Remaining balance after withdrawal: 1000
```

2.write a java program to create a class known as person with methods called getfirstname() and getlastname().create a subclass called employee that adds a

new method named get employeed() and overrides the getlastname() method to include the employee's job title

Program:

```
import java.io.*;
import java.util.Scanner;
class Person{
String f_name,l_name,get_emp;
void getfirstname(){
System.out.println("enter the first name:");
Scanner s=new Scanner(System.in);
String f_name=s.next();
System.out.println("the first name:"+f_name);
}
void getlastname(){
System.out.println("enter the last name:");
}
}
public class Employee extends Person{
 void getemployeed(){
System.out.println("enter the employee_position:");
Scanner id=new Scanner(System.in);
String get_emp=id.next();
System.out.println("the employee work:"+get_emp);
}
void getlastname(){
System.out.println("enter the last name:");
Scanner sc=new Scanner(System.in);
```

```
String l_name=sc.next();
System.out.println("the last name:"+l_name);
}
public static void main(String[] args){
Employee e=new Employee();
e.getfirstname();
e.getlastname();
e.getemployeed();
}
}
```

Output:

```
C:\Users\gowth\OneDrive\문서\java>java Employee
enter the first name:
kornana
the first name:kornana
enter the last name:
goutham
the last name:goutham
enter the employee_position:
hr_manager
the employee work:hr_manager
```

3.write a java program to create a class called shape with methods called getperimeter() and getarea().create a subclass called circle that overrides the getperimeter() and getarea() methods to calculate the area and perimeter of a circle.

Program:

```
import java.io.*;
import java.util.Scanner;
class shape
{
int r=5;
```

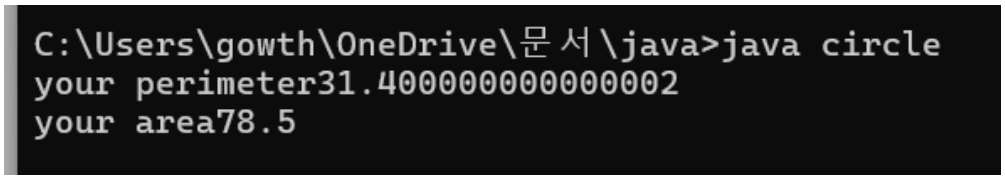
```
void getperimeter()
{
System.out.print("your perimeter");
}
void getarea()
{
System.out.println("your area");
}
}
 public class circle extends shape
{
double are,peri;
void getperimeter()
{
peri=2*3.14*r;
System.out.println("your perimeter"+peri);
}
void getarea()
{
are=3.14*r*r;
System.out.println("your area"+are);
}
public static void main(String args[])
{
circle s=new circle();
s.getperimeter();
```

s.getarea();

}

}

Output:



4.write a java program to create a vehicle class hierarchy.the bus class should be vehicle,with subclass truck,car and motorcycle.each subclass should have properties such as make,model,year and fueltype.implement methods of calculating fuel efficiency,distance travelled ,maximum speed

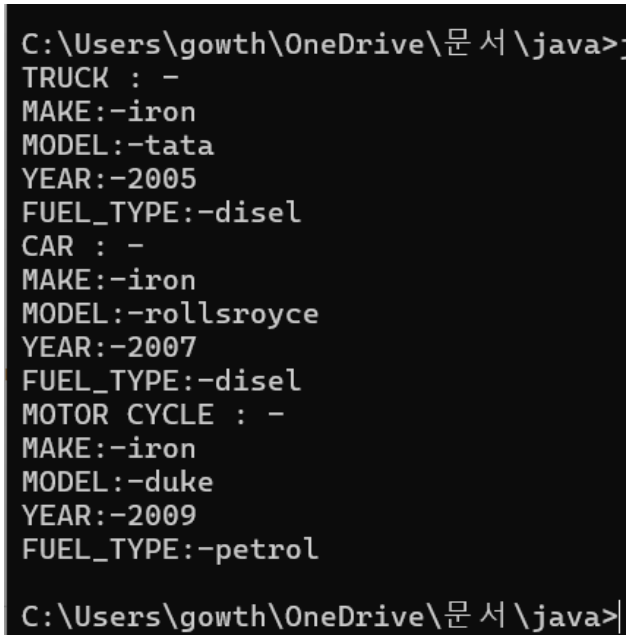
Program:

```
import java.io.*;

import java.util.Scanner;

class vehicle

{

String make,model,fueltype;

int year,distance;

}

class truck extends vehicle

{

void fuc()

{

System.out.println("TRUCK : -");

make="iron";

model="tata";

year=2005;
```

```
fueltype="disel";
distance=50;
System.out.println("MAKE:-"+make);
System.out.println("MODEL:-"+model);
System.out.println("YEAR:-"+year);
System.out.println("FUEL_TYPE:-"+fueltype);
}
}
class car extends vehicle
{
void fuc1()
{
System.out.println("CAR : -");
make="iron";
model="rollsroyce";
year=2007;
fueltype="disel";
System.out.println("MAKE:-"+make);
System.out.println("MODEL:-"+model);
System.out.println("YEAR:-"+year);
System.out.println("FUEL_TYPE:-"+fueltype);
}
}
public class motorcycle extends vehicle
{
void fuc2()
```

```
{
System.out.println("MOTOR CYCLE : -");
make="iron";
model="duke";
year=2009;
fueltype="petrol";
System.out.println("MAKE:-"+make);
System.out.println("MODEL:-"+model);
System.out.println("YEAR:-"+year);
System.out.println("FUEL_TYPE:-"+fueltype);
}
public static void main(String args[])
{
truck a=new truck();
car b=new car();
motorcycle c=new motorcycle();
a.fuc();
b.fuc1();
c.fuc2();
}
}
```

Output:



5.wrtie a java program that creates a class hierarchy fpr employee of a company .the base class should be employee,with subclass manager,developer,and programmer.each subclass should have properties such as name, address,salary or job title,implements methods for calculating bonuses,generating performing reports and managing projects;

Program:

```
import java.io.*; import java.util.Scanner;

class company

{

String name,address,jobtitle; int salary;

}

class manager extends company

{

void fuc()

{

System.out.println("MANAGER  : -"); name="goutham"; address="hyderabad"; salary=50000; jobtitle="EXECUTIVE CO-MANAGER";
System.out.println("NAME:-"+name);

System.out.println("ADRESS:-"+address);
```

```
System.out.println("SALARY:-"+salary);
System.out.println("JOB_TITLE:-"+jobtitle);
}
}
class developper extends company
{
void fuc1()
{
System.out.println("DVELOPPER  : -"); name="GURU"; address="KADAPA";
salary=250000; jobtitle="PROJECTMANAGER"; System.out.println("NAME:-
"+name);
System.out.println("ADRESS:-"+address);
System.out.println("SALARY:-"+salary);
System.out.println("JOB_TITLE:-"+jobtitle);
}
}
class programer extends company
{
void fuc2()
{
System.out.println("PROGRAMMER  : -"); name="SUJITH"; address="TIRUATHI";
salary=200000; jobtitle="PROGRAM CO-MANAGER";
System.out.println("NAME:-"+name);
System.out.println("ADRESS:-"+address);
System.out.println("SALARY:-"+salary);
System.out.println("JOB_TITLE:-"+jobtitle);
}
```

```
}
class employe extends company
{
void fuc3()
{
System.out.println("EMPLOYEE : -"); name="GANI"; address="SRIKAKULAM"; salary=100000; jobtitle="EMPLOYEE`MANAGER"; System.out.println("NAME:-"+name);
System.out.println("ADRESS:-"+address);
System.out.println("SALARY:-"+salary);
System.out.println("JOB_TITLE:-"+jobtitle);
}

public static void main(String args[])
{
manager  a=new manager(); developper   b=new developper (); programer c=new programer ();
employe  d=new employe();
a.fuc();
b.fuc1();
c.fuc2();
d.fuc3();
}
}
```

Output:

```
C:\Users\gowth\OneDrive\문서\java>java empl
MANAGER  : -
NAME:-goutham
ADRESS:-hyderabad
SALARY:-50000
JOB_TITLE:-EXECUTIVE CO-MANAGER
DVELOPPER  : -
NAME:-GURU
ADRESS:-KADAPA
SALARY:-250000
JOB_TITLE:-PROJECTMANAGER
PROGRAMMER  : -
NAME:-SUJITH
ADRESS:-TIRUATHI
SALARY:-200000
JOB_TITLE:-PROGRAM CO-MANAGER
EMPLOYEE : -
NAME:-GANI
ADRESS:-SRIKAKULAM
SALARY:-100000
JOB_TITLE:-EMPLOYEE`MANAGER

C:\Users\gowth\OneDrive\문서\java>
```