

1. write a java program to create a vehicle class hierarchy.the bus class shouldbe vehicle,with subclass truck,car and motorcycle.each subclass should haveproperties 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:

```
TRUCK : -  
MAKE:-iron  
MODEL:-tata  
YEAR:-2005  
FUEL_TYPE:-disel  
CAR : -  
MAKE:-iron  
MODEL:-rollsroyce  
YEAR:-2007  
FUEL_TYPE:-disel  
MOTOR CYCLE : -  
MAKE:-iron  
MODEL:-duke  
YEAR:-2009  
FUEL_TYPE:-petrol
```