OOP Assignment 1

1. Consider the following codes: [5]

```
class Vehicle {
  protected String brand;

  public Vehicle(String brand) {
     this.brand = brand;
  }

  public void honk() {
    System.out.println("Tuut, tuut!");
  }
}

public class Car extends Vehicle {
  private String modelName;

  // Invoke parent class constructor;

  // Invoking overriding method;

  public static void main(String[] args) {
    Car myCar = new Car("Ford", "Mustang");
    myCar.honk();
    System.out.println(myCar.brand + " " +
myCar.modelName);
  }
}
```

Output:

```
A vehicle horn is a
sound-making device.
Tuut, tuut!
Ford Mustang
```

Now:

I. **Write the constructor of the car class and invoke the parent class constructor.**

II. **Override the honk() method and print "A vehicle horn is a sound-making device." then invoke the overridden method.**

2. Write the output of the following codes: [5]

```
class Calculate{
  static int count=10;

  static{  System.out.println("United International University");  }

  static int cube(int x){
    return x*x*x;
  }

  public static void Counter(){
    count++;//incrementing the value of static variable
    System.out.println(count);
  }

  public static void main(String args[]){
    Calculate.Counter();
    Calculate c1 = new Calculate();
    c1.Counter();
    Calculate c2 = new Calculate();
    c2.Counter();
    System.out.println(c1.count);
    int result=Calculate.cube(Calculate.count);
    System.out.println(result);
  }
}
```