192011080

ASSIGNMENT-2

(1) write a Phentance program to implement an Pherface called shape. Now, create three classes arde, square, Triangle. The shape interface should contain three methods Radius, length, height and Base?

```
Class Poterface Shape &
                       had well blank spece
      double radgus ();
      double Length ();
      double height ();
      double base ();
class cricle implements shape of
     private double radius;
     public arcle (double radius) ;
     thes. radeus = radeus;
    d Mush there is and top all and a round and
@ override
    public double radius () }
     return radpus;
```

@ override

public double kength () of

return at math. PI * radius;

```
@overilde
  public double base () {
  return side;
                  Hosping and Bud king
class Trangle Pomplements shape &
 private double base;
                         the face of the contract of the state of
 private double height;
 public Trangle (double base, double height) {
 thes, base shase;
 this height = height;
@ overolde
 public double radius () {
                          bapade Masanahan shaha kerte
  return no;
3
@ over-ride
  public double length () {
   return base + 2th math . Sqrt (base base + height height);
agverride
  public double height () {
   return height;
(20ver-Pide
  public double base () &
```

```
returnbase () 1
public class main &
  public static vord main (string (Jargs) {
  cricle chicle = new chicle (5);
   equare square = new square (4);
  Trangle Trangle = new trangle (3,6);
   System.out.porrtln (acrocle length." + circle, length ());
   Eystem. out-println ("equare length" + equares length ());
  system.out.polntln ("Forlangle length"+ tollangle.length ());
write a program to Illustrate polymorphem, create a dass
called parent contagns 3 methods TVC), radgo (entbutton,
string, playlent); phone (ent, phonour , double prece, string)
Now create another class called cheld. This cheld class
should override an overload the methods an parent class
 elass povent {
vold TVC) &
   system. out. protto (" watching TV");
```

```
Void-rad Po (Port button, string stateon) }
  System. out. printin ("Tuning to state on"+station t
   Pn button '+ button);
vord phone (Port botton, storng pho num, double price,
    string mode) {
 system. out. prontin ("calling" + phn num+ "using
      phone model"+ model + " (Button: "+ button+;
     proce: "+ proce +")");
 class child extends porent of
 @ overfle
   ropd TVC) 3
    system.out. printin ("child is watching TV");
@ overfide
   vord radro ( ent button, storing playlest)?
   syxtem-out-printin (icheld es playing playlest"+
     playlest + "on radeo button" + button);
```

```
void phone (Portbuffon, string phonoum, double proce,
             string model) {
  System.out.porntin ("cheld" calleng"+ pho num+
     suring phone mode "+ model + "(Button"+ button+
     ", beg ce: 1 + befce + ")");
public class main &
    public state vord marn (strang [] args )?
    forent parentable = new cheld ();
    parent obj. TV ();
   parentob g. rad Po (2, "Rock");
   parent obj phone (1, "123-456-7890", 1919.99,
         "Smart phone");
```