

Assignment 3

Que1 : Solution

```
class Arithmetic
{
  //characteristics

  number1:number;
  number2:number;
  result:number;

  //constructor

  constructor(num1:number,num2:number)
  {
    this.number1=num1;
    this.number2=num2;
  }

  //behaviours

  Addition(number1:number,number2:number):number
  {
    var result=number1+number2;
    return result;
  }

  Substraction(number1:number,number2:number):number
  {
    var result=number1-number2;
    return result;
  }

  Multiplication(number1:number,number2:number):number
  {
    var result=number1*number2;
    return result;
  }

  Divide(number1:number,number2:number):number
  {
    var result=number1/number2;
    return result;
  }

}

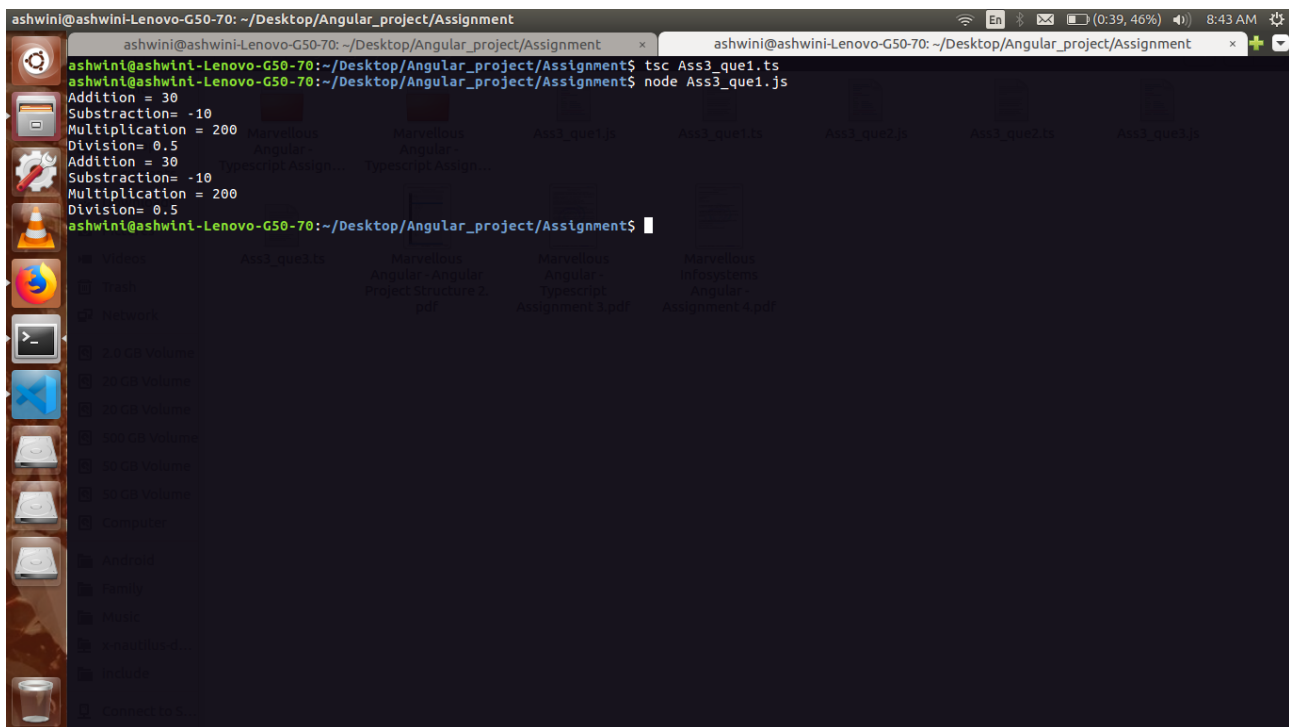
//creating object of class

var obj=new Arithmetic(10,20);
console.log("Addition = "+obj.Addition(10,20));
```

```
console.log("Subtraction= "+obj.Subtraction(10,20));  
console.log("Multiplication = "+obj.Multiplication(10,20));  
console.log("Division= "+obj.Divide(10,20));
```

```
var obj1=new Arithmetic(32,20);
```

```
console.log("Addition = "+obj1.Addition(10,20));  
console.log("Subtraction= "+obj1.Subtraction(10,20));  
console.log("Multiplication = "+obj1.Multiplication(10,20));  
console.log("Division= "+obj1.Divide(10,20));
```



```
ashwini@ashwini-Lenovo-G50-70: ~/Desktop/Angular_project/Assignment  
ashwini@ashwini-Lenovo-G50-70:~/Desktop/Angular_project/Assignment$ tsc Ass3_que1.ts  
ashwini@ashwini-Lenovo-G50-70:~/Desktop/Angular_project/Assignment$ node Ass3_que1.js  
Addition = 30  
Subtraction= -10  
Multiplication = 200  
Division= 0.5  
Addition = 30  
Subtraction= -10  
Multiplication = 200  
Division= 0.5  
ashwini@ashwini-Lenovo-G50-70:~/Desktop/Angular_project/Assignment$
```

Que 2:

```
class circle
{
  //characteristics

  radius:number;
  pi:number=3.14;

  //constructor

  constructor(value:number)
  {
    this.radius=value;
    //this.pi=3.14;
  }

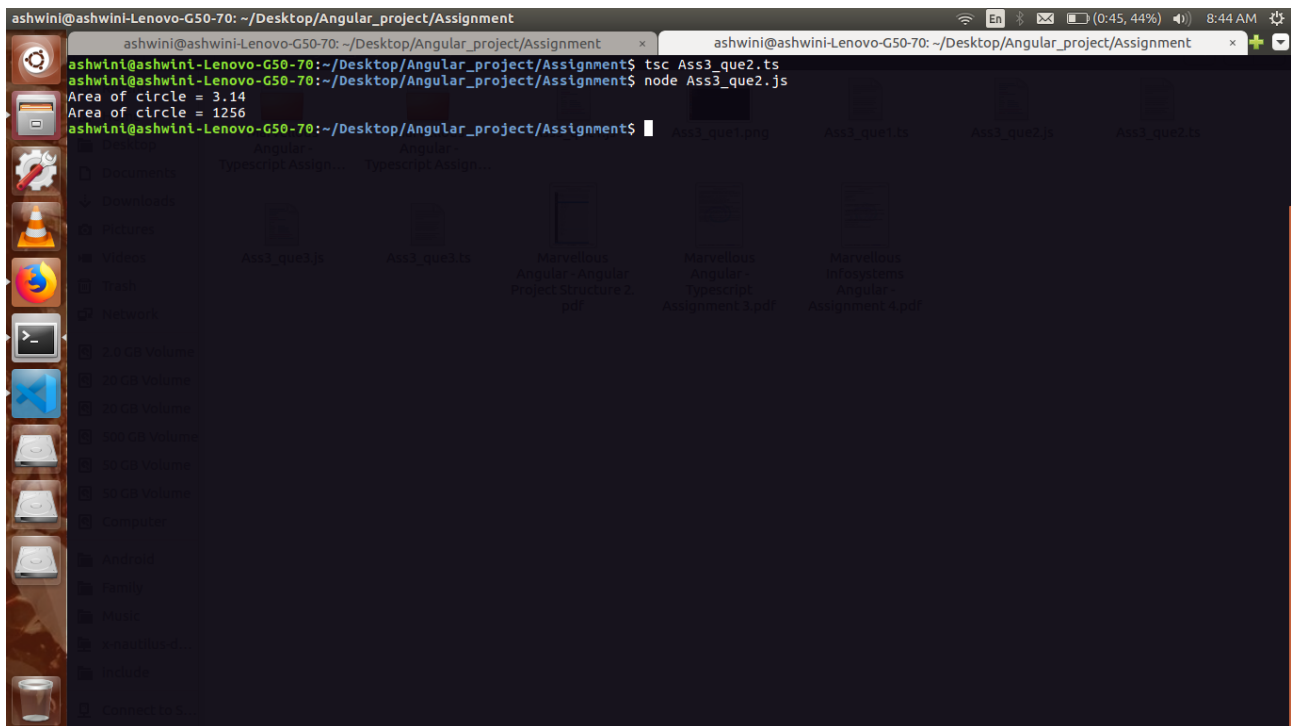
  //Behaviour

  Area():number
  {

    var result=this.pi*this.radius*this.radius;
    return result;
  }
}

var obj1=new circle(1);
console.log("Area of circle = "+obj1.Area());

var obj2=new circle(20);
console.log("Area of circle = "+obj2.Area());
```



Que 3:

```
class circle
{
  //characteristics

  radius:number;
  pi:number=3.14;

  //constructor

  constructor(value:number)
  {
    this.radius=value;
    //this.pi=3.14;
  }

  //Behaviour

  Area():number
  {

    var result=this.pi*this.radius*this.radius;
    return result;
  }
}

class CircleX extends circle
{

  Circumference():number
  {
    var result=2*this.pi*this.radius;
    return result;
    // console.log("Circumstance= "+result);
  }
}

var obj1=new CircleX(1);
console.log("Area of circle = "+obj1.Area());

console.log("Circumference = "+obj1.Circumference());

var obj2=new CircleX(2);
console.log("Area of circle = "+obj2.Area());
console.log("Area of circle = "+obj2.Circumference());
```

