```typescript
/*1. Create one typescript application which contains one class named as Arithmetic.
Arithmetic class contains three characteristics (Class data members) as Number1, Number2.
Create one parametrised constructor which accept two values and assign it to Number1 and
Number2.
In Arithmetic class we have to write four methods (Behaviours) as Addition, Subtraction ,
Multiplication and Division.
Addition method will add Number1 , Number2 & return result.
Subtraction method will subtract Number1 , Number2 & return result.
Multiplication method will multiply Number1 , Number2 & return result.
Division method will divide Number1 , Number2 & return result.
After designing the class create two objects of that class by providing some hardcoded value.
Call all the methods by using both the objects.

AUTHOR :-  RAMESH GHULE
*/

class Arithmetic{
   Number1:number;
   Number2:number;

   constructor(Number1:number, Number2:number){
      this.Number1 = Number1;
      this.Number2 = Number2;
   }

   Addition():number{
      return this.Number1+this.Number2;
   }
   Subtraction():number{
      return this.Number1-this.Number2;
   }
   Multiplication():number{
      return this.Number1*this.Number2;
   }
   Division():number{
      return this.Number1/this.Number2;
   }
}

var obj1 = new Arithmetic(20,10);
var obj2 = new Arithmetic(200,50);

console.log("var obj1 = new Arithmetic(20,10)");
console.log("obj1.Addition is= "+obj1.Addition());
console.log("obj1.Subtraction is= "+obj1.Subtraction());
console.log("obj1.Multiplication is= "+obj1.Multiplication());
console.log("obj1.Division is= "+obj1.Division());

console.log("var obj2 = new Arithmetic(200,50)");
console.log("obj2.Addition is= "+obj2.Addition());
console.log("obj2.Subtraction is= "+obj2.Subtraction());
console.log("obj2.Multiplication is= "+obj2.Multiplication());
```
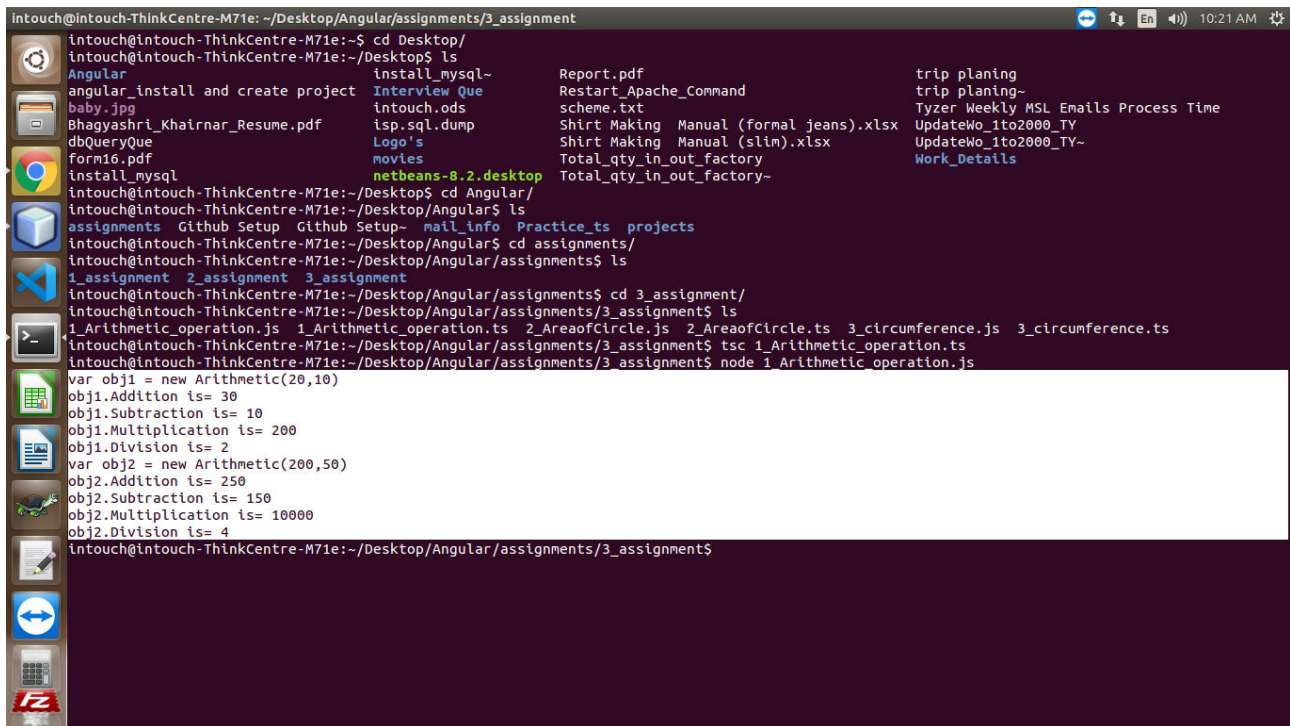
console.log("obj2.Division is= "+obj2.Division());

/*2. Create one typescript application which contains one class named as Circle.
Circle class contains two characteristics (Class data members) as Radius, PI.
Create one parametrised constructor which accept one value and assign it to Radius. Value of
PI member is set to 3.14.
In Circle class we have to one method (Behaviours) as Area which will return area of Circle.
After designing the class create two objects of that class by providing some hardcoded value.
Call the method Area by using both the objects.

AUTHOR :- RAMESH GHULE
*/


```
class Circle{
    Radius:number;
    PI:number;

    constructor(rad:number){
        this.Radius = rad;
        this.PI = 3.14;
    }

    Area():number{
        return this.PI*this.Radius*this.Radius;
    }
}

var obj1 = new Circle(5);
var obj2 = new Circle(15);
console.log("var obj1 = new Circle(5);");
```

```
console.log("obj1.Area() is= "+obj1.Area());
console.log("var obj2 = new Circle(15);");
console.log("obj2.Area() is= "+obj2.Area());
```


/*3. Create one typescript application which contains one class named as CircleX which sill inherits above Circle class.
In CircleX class we have to write one method (Behaviours) as Circumference which will return circumference of circle.
After designing the class create two objects of that class by providing some hardcoded value.
Call Circumference and Area methods by using both the objects.

AUTHOR :- RAMESH GHULE
*/

```
class Circle{
    Radius:number;
    PI:number;

    constructor(rad:number){
        this.Radius = rad;
        this.PI = 3.14;
    }

    Area():number{
        return this.PI*this.Radius*this.Radius;
    }
}

class CircleX extends Circle{          //inheritance
    constructor(rad:number){
```

```
      super(rad);
    }
  Circumference():number{
      return 2*this.PI*this.Radius;
    }
}

var obj1 = new CircleX(5);
var obj2 = new CircleX(15);
console.log("var obj1 = new CircleX(5);");
console.log("obj1.Area() is= "+obj1.Area());
console.log("obj1.Circumference() is= "+obj1.Circumference());
console.log("var obj2 = new CircleX(15);");
console.log("obj2.Area() is= "+obj2.Area());
console.log("obj2.Circumference() is= "+obj2.Circumference());
```



```
intouch@intouch-ThinkCentre-M71e: ~/Desktop/Angular/assignments/3_assignment                    En  ◄)) 10:23 AM

baby.jpg                          intouch.ods              scheme.txt                   Tyzer Weekly MSL Emails Process Time
Bhagyashri_Khairnar_Resume.pdf    isp.sql.dump             Shirt Making  Manual (formal jeans).xlsx  UpdateWo_1to2000_TY
dbQueryQue                        Logo's                   Shirt Making  Manual (slim).xlsx          UpdateWo_1to2000_TY~
form16.pdf                        movies                   Total_qty_in_out_factory                  Work_Details
install_mysql                     netbeans-8.2.desktop     Total_qty_in_out_factory~
intouch@intouch-ThinkCentre-M71e:~/Desktop$ cd Angular/
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular$ ls
assignments  Github Setup  Github Setup~  mail_info  Practice_ts  projects
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular$ cd assignments/
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments$ ls
1_assignment  2_assignment  3_assignment
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments$ cd 3_assignment/
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/3_assignment$ ls
1_Arithmetic_operation.js  1_Arithmetic_operation.ts  2_AreaofCircle.js  2_AreaofCircle.ts  3_circumference.js  3_circumference.ts
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/3_assignment$ tsc 1_Arithmetic_operation.ts
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/3_assignment$ node 1_Arithmetic_operation.js
var obj1 = new Arithmetic(20,10)
obj1.Addition is= 30
obj1.Subtraction is= 10
obj1.Multiplication is= 200
obj1.Division is= 2
var obj2 = new Arithmetic(200,50)
obj2.Addition is= 250
obj2.Subtraction is= 150
obj2.Multiplication is= 10000
obj2.Division is= 4
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/3_assignment$ tsc 2_AreaofCircle.ts
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/3_assignment$ node 2_AreaofCircle.js
var obj1 = new Circle(5);
obj1.Area() is= 78.5
var obj2 = new Circle(15);
obj2.Area() is= 706.5
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/3_assignment$ tsc 3_circumference.ts
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/3_assignment$ node 3_circumference.js
var obj1 = new CircleX(5);
obj1.Area() is= 78.5
obj1.Circumference() is= 31.400000000000002
var obj2 = new CircleX(15);
obj2.Area() is= 706.5
obj2.Circumference() is= 94.2
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/3_assignment$
```