

Q1.Explain what is Loose Coupling and Tight Coupling. Also show the examples of code having tight coupling and how you can make it loosely coupled.?

Loosely coupled means changes in one module / section / component hardly affect the other components and each module is somewhat independent of each other.

On the other hand, tightly coupled promotes inter dependent applications and code. Tightly coupled is fragile as minor issue in one segment can bring the whole system down.

**Example : -**

```
class test1 {  
    Let x = 2;  
    Function f1 (){  
        console.log("the value of x is", this.x)  
    }  
}  
  
Class test2 {  
    Let y = 2  
    Function f2(){  
        console.log("the value of y is", this.y)  
    }  
}  
  
Let obj1 = new test1()  
Let obj2 = new test2()
```

## **Q2.What is High cohesion and how is it helpful?**

High cohesion refers to a component that is very well defined. Meaning that it serves only one purpose and it accomplishes that purpose very well. If you have a component that reads from a database, sends an email, prints out documents, then it does not have high cohesion. Each one of those should be separated out into its own component. By having a component do only one thing you can gain many benefits, such as testing only what you need, separation of concerns, and ease of maintenance.

## **Q3 State KISS and YAGNI principle**

**Yagni** states you need to cut off the code you don't need right now, **KISS** is about making the remaining code simple