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Topic : Singleton Design Pattern

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Implementation of Singleton Design Pattern :

Class Pizza (Singleton Class - Lazy way of creating Object - Synchronized for thread safety.

```
public class Pizza {  
    private static Pizza pizza;  
    //creating object with constructor  
    private Pizza(){  
        //constructor  
    }  
    //Lazy way of creating singleton object  
    public static Pizza getPizza(){  
        synchronized(Pizza.class){  
            if( pizza==null ){  
                pizza = new Pizza();  
            }  
        }  
        return pizza;  
    }  
}
```

Class Cake (Singleton Class - Eager way of creating Object)

```
public class Cake {  
    private static Cake cake = new Cake();  
    private Cake() {  
        //constructor  
    }  
    //Eager way of creating singleton object  
    public static Cake getCake() {  
        return cake;  
    }  
}
```

Class Testing for main method :

```
public class Testing {  
    public static void main(String[] args) {  
        //Pizza pizza1 = new Pizza();  
        //can't create object with constructor as private  
        //create object with method  
        Pizza pizza1 = Pizza.getPizza();  
        System.out.println(pizza1.hashCode());  
        Pizza pizza2 = Pizza.getPizza();  
        System.out.println(pizza2.hashCode());  
  
        Cake cake1 = Cake.getCake();  
        System.out.println(cake1.hashCode());  
        Cake cake2 = Cake.getCake();  
        System.out.println(cake2.hashCode());  
    }  
}
```

