3. Write a program to create Interface and declare one method interest() having 3 arguments: Principle Amount, RateOfInterest, NumberOfYears. Then Create 2 classes simple Interest and Compound Interest then calculate these 2 interests.

```
interface Interest{
	void interest(double principal, float rateOfInterest, int
numberOfYears);
}

class SimpleInterest implements Interest{
	public void interest(double principal, float rateOfInterest, int
numberOfYears)
	{
		double interest = principal * rateOfInterest * numberOfYears;
		System.out.println(interest);
	}
}

class CompoundInterest implements Interest{
	public void interest(double principal, float rateOfInterest, int
numberOfYears)
	{
		rateOfInterest = rateOfInterest / 100;
		double interest = principal * Math.pow( (1f +
(rateOfInterest/12f)) ,   (double)(12f * numberOfYears) );
		System.out.println(interest);
	}
}

class InterestImplementation{
	public static void main(String args[]){
			System.out.println("Computing simple interest:");
			System.out.println("Principal: 5000");
			System.out.println("Rate of Interest: 5%");
			System.out.println("Number of Years: 5");
			SimpleInterest si = new SimpleInterest();
			si.interest(5000d,5f,5);

			System.out.println("Computing compound interest:");
			System.out.println("Principal: 5000");
			System.out.println("Rate of Interest: 5%");
			System.out.println("Number of Years: 10");
```

```
                CompoundInterest ci = new CompoundInterest();
                ci.interest(5000,5,10);
        }
}
```

Output:

```
D:\Learn\Sem-5\Java\Assignments\Assignment-3\Interest>javac Interest.java

D:\Learn\Sem-5\Java\Assignments\Assignment-3\Interest>java InterestImplementation
Computing simple interest:
Principal: 5000
Rate of Interest: 5%
Number of Years: 5
125000.0
Computing compound interest:
Principal: 5000
Rate of Interest: 5%
Number of Years: 10
8235.10223539336
```