Code1:

```
interface BankInterface{
	void getBalance();
	void getInterestRate();
}
class BankA implements BankInterface{
	public void getBalance()
	{
		System.out.println("Bank A Deposit:10000");
	}
	public void getInterestRate()
	{
		System.out.println("Bank A interest rate 7%");
		double bal=1.07*10000;
		System.out.println("Bank A balance:"+bal);
		System.out.println("_____");
	}
}
class BankB implements BankInterface{
	public void getBalance()
	{
		System.out.println("Bank B Deposit:150000");
	}
	public void getInterestRate()
	{
		System.out.println("Bank B interest rate 7.4%");
		double bal=1.074*150000;
		System.out.println("Bank B balance:"+bal);
		System.out.println("_____");
	}
}
class BankC implements BankInterface{
	public void getBalance()
	{
		System.out.println("Bank C Deposit:200000");
	}
	public void getInterestRate()
	{
		System.out.println("Bank C interest rate 7.9%");
		double bal=1.079*200000;
		System.out.println("Bank C balance:"+bal);
	}
}
class Lab5Program1{
```

```
        public static void main(String[] args) {
                BankA obj1=new BankA();
                obj1.getBalance();
                obj1.getInterestRate();
                BankB obj2=new BankB();
                obj2.getBalance();
                obj2.getInterestRate();
                BankC obj3=new BankC();
                obj3.getBalance();
                obj3.getInterestRate();
        }
}
```

Output:

```
Bank A Deposit:10000
Bank A interest rate 7%
Bank A balance:10700.0
_____
Bank B Deposit:150000
Bank B interest rate 7.4%
Bank B balance:161100.0
_____
Bank C Deposit:200000
Bank C interest rate 7.9%
Bank C balance:215800.0
```

Code 2:

```
import java.util.*;
interface WaterConservationSystem{
        void calculateTrappedWater(int[] blockHeights);
}
abstract class RainySeasonConservation implements WaterConservationSystem{
        public abstract void calculateTrappedWater(int[] blockHeights);
}
class CityBlockConservation extends RainySeasonConservation{
        public void calculateTrappedWater(int[] blockHeights){
                int total=0;
                int n=blockHeights.length;
                System.out.println(n);
                for(int i=1;i<n;i++){
                        if(blockHeights[i]<blockHeights[0]){
                                total+=(blockHeights[0]-blockHeights[i]);
                        }
                }
                System.out.println("Total collection="+total);
        }
}
```

```
class Lab5Program2{
	public static void main(String[] args) {
		Scanner sc=new Scanner(System.in);
		CityBlockConservation obj=new CityBlockConservation();
		int a=0;
		do
		{
			System.out.println("Enter the number of houses ");
			int b=sc.nextInt();
			int array[]=new int[b];
			for(int i=0;i<b;i++){
				System.out.println("Enter height of house "+(i+1));
				array[i]=sc.nextInt();
			}
			obj.calculateTrappedWater(array);
			System.out.println("Do you want to:1.Try Again  2.Exit");
			a=sc.nextInt();
		}while(a!=2);
		System.out.println("Thank you");
	}
}
```

Output:

```
Enter the number of houses
5
Enter height of house 1
3
Enter height of house 2
0
Enter height of house 3
2
Enter height of house 4
0
Enter height of house 5
4
5
Total collection=7
Do you want to:1.Try Again  2.Exit
1
Enter the number of houses
6
Enter height of house 1
3
Enter height of house 2
0
Enter height of house 3
0
Enter height of house 4
2
Enter height of house 5
0
```

```
Enter height of house 6
4
6
Total collection=10
Do you want to:1.Try Again  2.Exit
2
Thank you
```