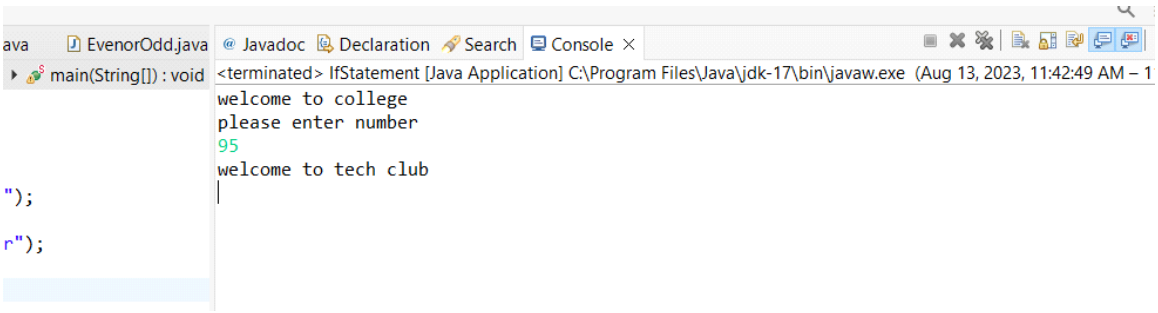
CONTROL CONSTRUCTS

Program 1:

If Statement:

```
import java.util.Scanner;
public class If Statement {
        public static void main(String[] args) {
            System.out.println("welcome to college");
            Scanner scan=new Scanner(System.in);
            System.out.println("please enter number");
            int marks=scan.nextInt();
            if(marks>90)
            {
                System.out.println("welcome to tech club");
            }
            // TODO Auto-generated method stub

        }

}
```

Output:

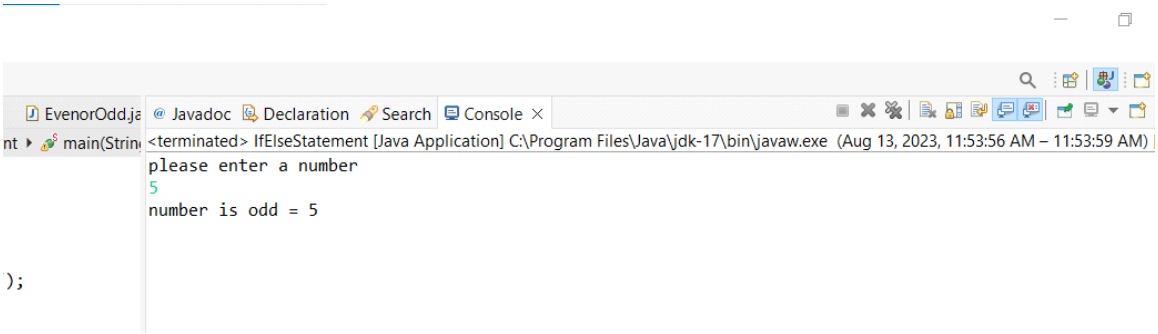


Program 2:

```
import java.util.Scanner;

public class IfElseStatement {

public static void main(String[] args) {

            Scanner scan =new Scanner(System.in);

            System.out.println("please enter a number");

            int n=scan.nextInt();
```

```
        if(n%2==0)
        {
            System.out.println("number is even"+n);
        }
        else
        {
            System.out.println("number is odd = "    +n);
        }

    }

}
```

Output:



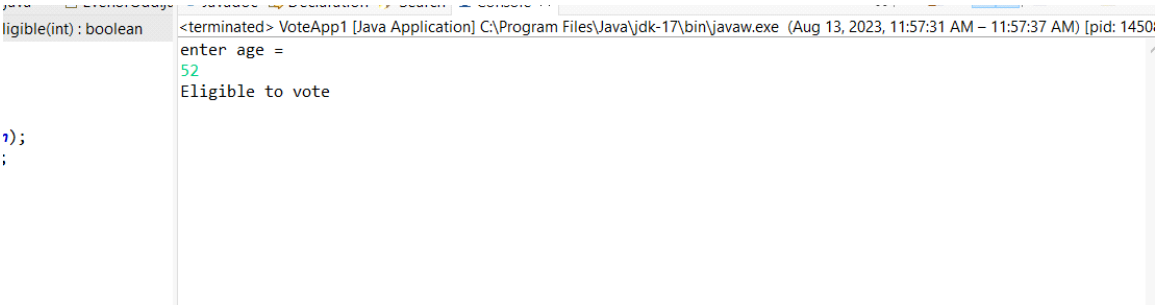
Program 3:

```
import java.util.Scanner;
class App {
        public int inputage()
        {
            Scanner scan=new Scanner(System.in);
            System.out.println("enter age =");
```

```
                int age=scan.nextInt();
                return age;
                    }
            public boolean iseligible(int age)
            {
                boolean eligible=false;
                if (age>18)
                {
                        eligible=true;
                }
                return eligible;
            }
        }
class VoteApp1
{
public static void main(String[] args)
{
App ob=new App();
int age=ob.inputage();
boolean res=ob.iseligible(age);
if (res==true)
{
System.out.println("Eligible to vote");
}
else
```

```
{
System.out.println("Not Eligible to vote");
            }
      }
}
```

Output:



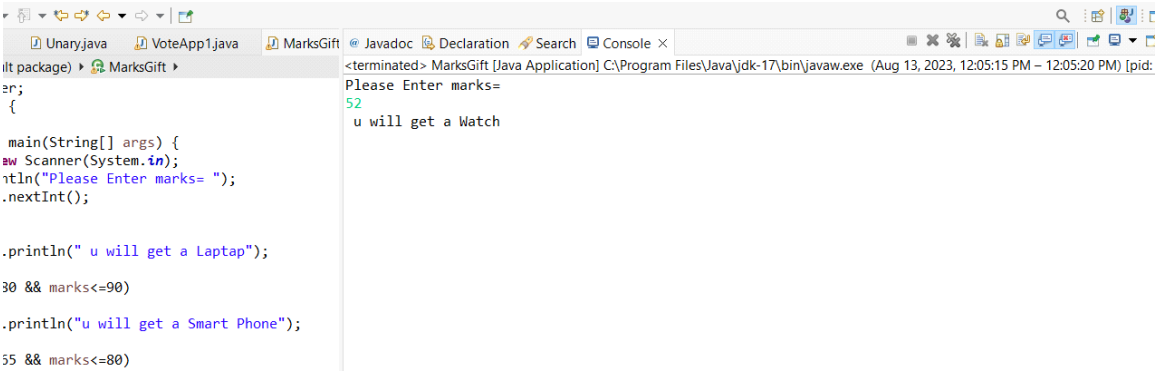
Program 4:

Else of Ladder:

```
import java.util.Scanner;
public class MarksGift {
public static void main(String[] args) {
            Scanner scan=new Scanner(System.in);
            System.out.println("Please Enter marks= ");
            int marks=scan.nextInt();
            if(marks>90)
            {
                  System.out.println(" u will get a Laptap");
            }
            else if(marks>80 && marks<=90)
            {
```

```
            System.out.println("u will get a Smart Phone");
        }
        else if(marks>65 && marks<=80)
        {
            System.out.println(" u will get a Bicycle");
        }
        else if(marks>40 && marks<=65)
        {
            System.out.println(" u will get a Watch");
        }
        else
        {
            System.out.println("u will be thrown out of the house");
        }
    }

}
```

Output:



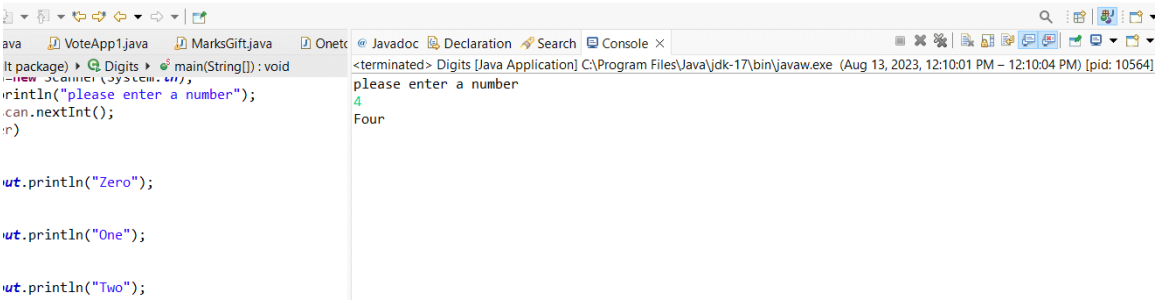
Program 5:

Switch Case Statement:

```
import java.util.*;
public class Digits {
public static void main(String[] args) {
        Scanner scan=new Scanner(System.in);
        System.out.println("please enter a number");
        int number=scan.nextInt();
        switch(number)
        {
        case 0:
            System.out.println("Zero");
            break;
        case 1:
            System.out.println("One");
            break;
        case 2:
            System.out.println("Two");
            break;
        case 3:
            System.out.println("Three");
            break;
        case 4:
            System.out.println("Four");
            break;
```

```
            case 5:
                System.out.println("five");
                break;
            case 6:
                System.out.println("six");
                break;
            case 7:
                System.out.println("Seven");
                break;
            case 8:
                System.out.println("Eight");
                break;
            case 9:
                System.out.println("Nine");
                break;
            default:
                System.out.println("Invalid input");
            }
            scan.close();
        }
}
```

Output:

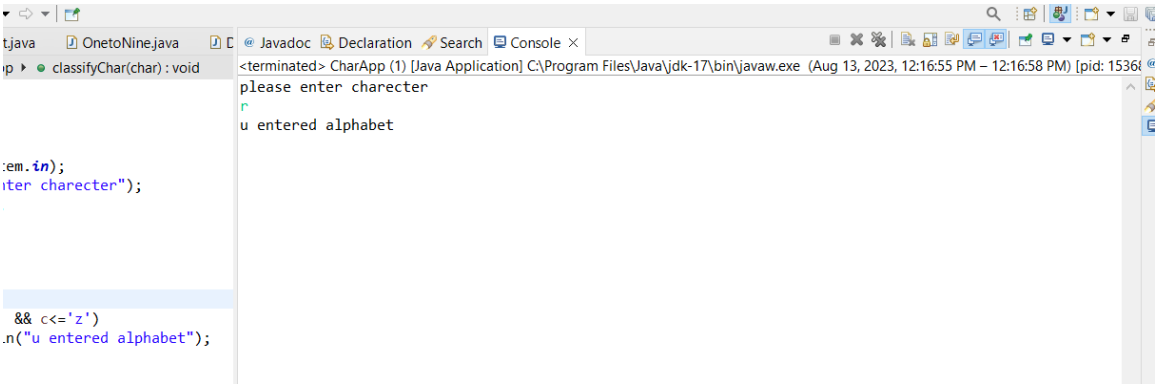


Program 6:

```
import java.util.Scanner;
class App {
        public char inputChar()
        {
                Scanner scan=new Scanner(System.in);
                System.out.println("please enter charecter");
                char c=scan.next().charAt(0);
                return c;
                }
         public void classifyChar(char c)
        {
                        if (c>='A' && c<='Z'|| c>='a' && c<='z')
                {                       System.out.println("u entered alphabet");
                }
                else if(c>='0' && c<='9')
                {
```

```
                System.out.println("u entered digits");
            }
            else
            {
                System.out.println("u entered special symbol");
            }
        }
}

class CharApp
        {
        public static void main(String[] args)
        {
            App A=new App();
            char ch=A.inputChar();
           A.classifyChar(ch);
        }
}
```

Output:



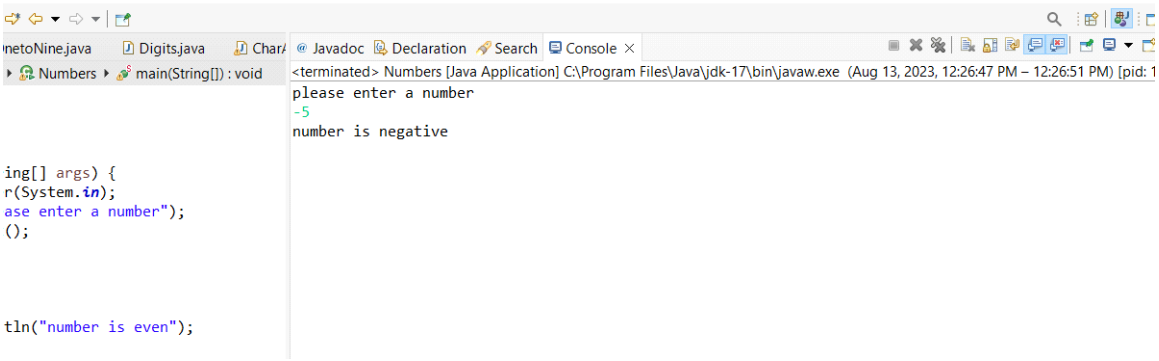
Program 7:

Nested If:

```
import java.util.Scanner;
public class Numbers {
public static void main(String[] args) {
		Scanner scan=new Scanner(System.in);
		System.out.println("please enter a number");
		int number=scan.nextInt();
		if(number>0)
		{
			if(number%2==0)
			{
				System.out.println("number is even");
			}
			else
			{
				System.out.println("number is odd");
			}
		}
		else
			{
				System.out.println("number is negative");
			}
		}
```

```
    }
```

Output:

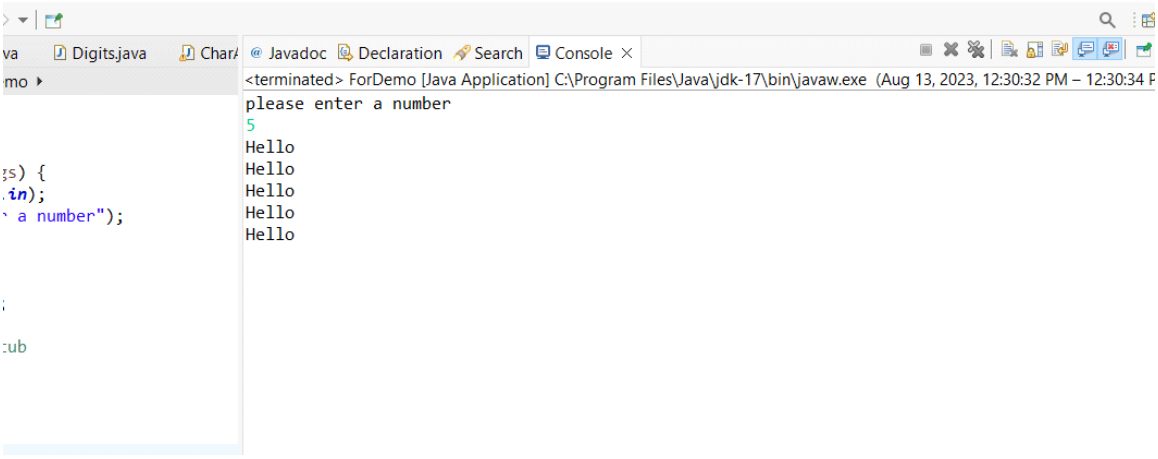


Program 8:

For Loop:

```
import java.util.Scanner;
public class ForDemo {
public static void main(String[] args) {
                Scanner scan=new Scanner(System.in);
                System.out.println("please enter a number");
                int n=scan.nextInt();
                for(int i=1;i<=n;i++)
                {
                        System.out.println("Hello");
                }
                scan.close();
        }

}
```

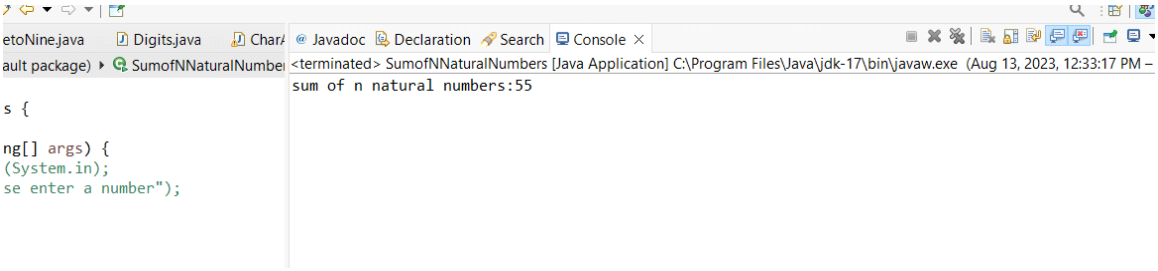
Output:



Program 9:

```
public class SumofNNaturalNumbers {
public static void main(String[] args) {
		int sum=0;
		int n=10;
		for(int i=1;i<=n;i++)
		{
			sum=sum+i;
		}
		System.out.println("sum of n natural numbers:"+sum);

	}
}
```

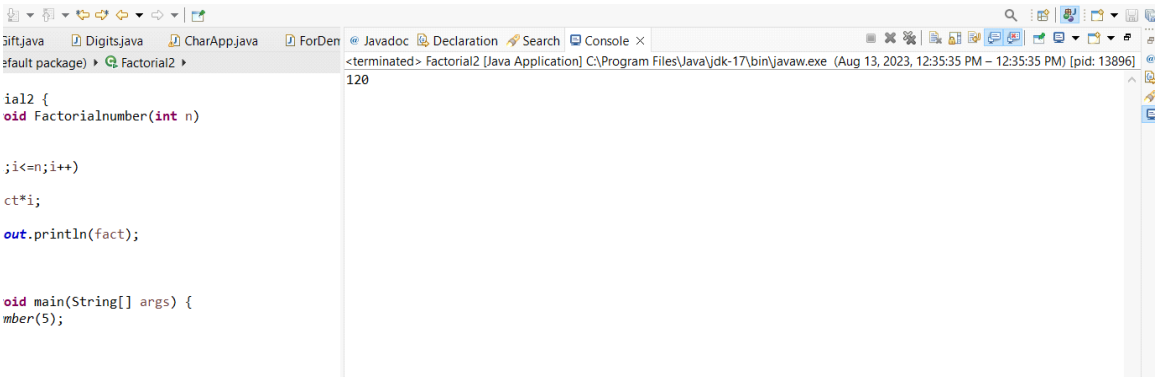
Output:



Program 10:

```
public class Factorial2 {
        public static void Factorialnumber(int n)
        {
                int fact=1;
                for(int i=1;i<=n;i++)
                {
                        fact=fact*i;
                }
                        System.out.println(fact);
                }
public static void main(String[] args) {
Factorialnumber(5);
        }
}
```

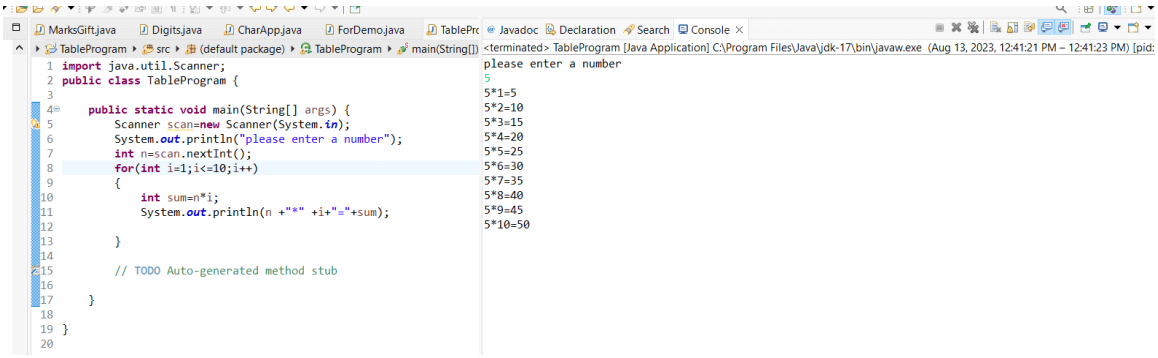
Output:



Program 11:

```
import java.util.Scanner;
public class TableProgram {
public static void main(String[] args) {
		Scanner scan=new Scanner(System.in);
		System.out.println("please enter a number");
		int n=scan.nextInt();
		for(int i=1;i<=10;i++)
		{
			int sum=n*i;
			System.out.println(n +"*" +i+"="+sum);

		}

	}

}
```

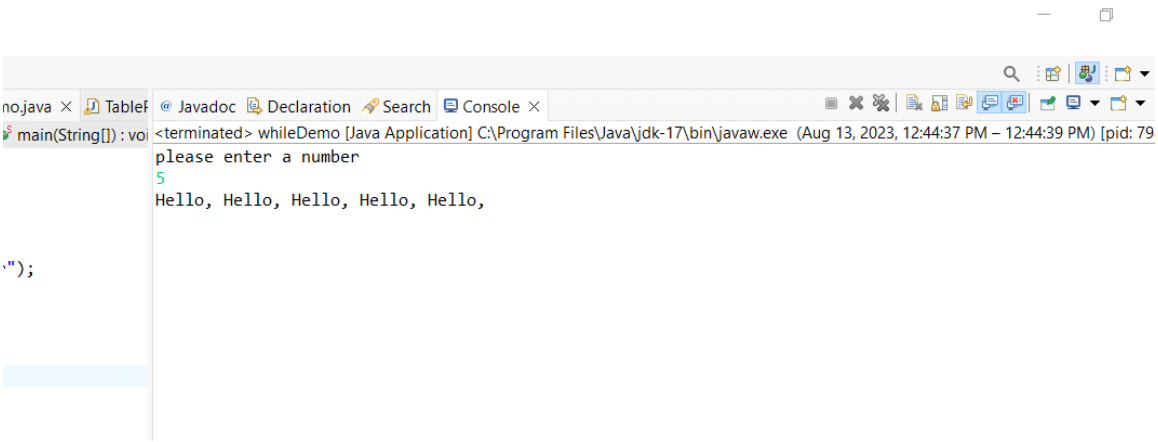
Output:



Program 12:

```
import java.util.Scanner;
public class whileDemo {
public static void main(String[] args) {
                Scanner scan=new Scanner(System.in);
                System.out.println("please enter a number");
                int n=scan.nextInt();
                int i=1;
                while(i<=n)
                {
                        System.out.print("Hello,"+" ");
                        i++;
                }
        }
}
```

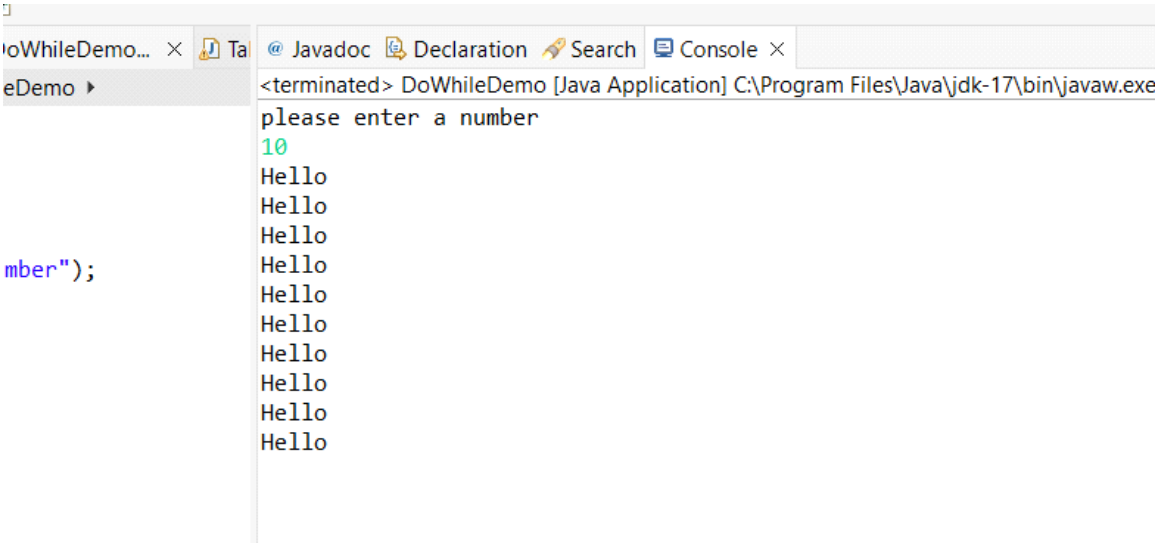
Output:



Program 13:

```
import java.util.Scanner;
public class DoWhileDemo {
public static void main(String[] args) {
                Scanner scan=new Scanner(System.in);
                System.out.println("please enter a number");
                int n=scan.nextInt();
                int i=1;
                do
                {
                        System.out.println("Hello");
                        i++;
                } while(i<=n);
        }
    }
```

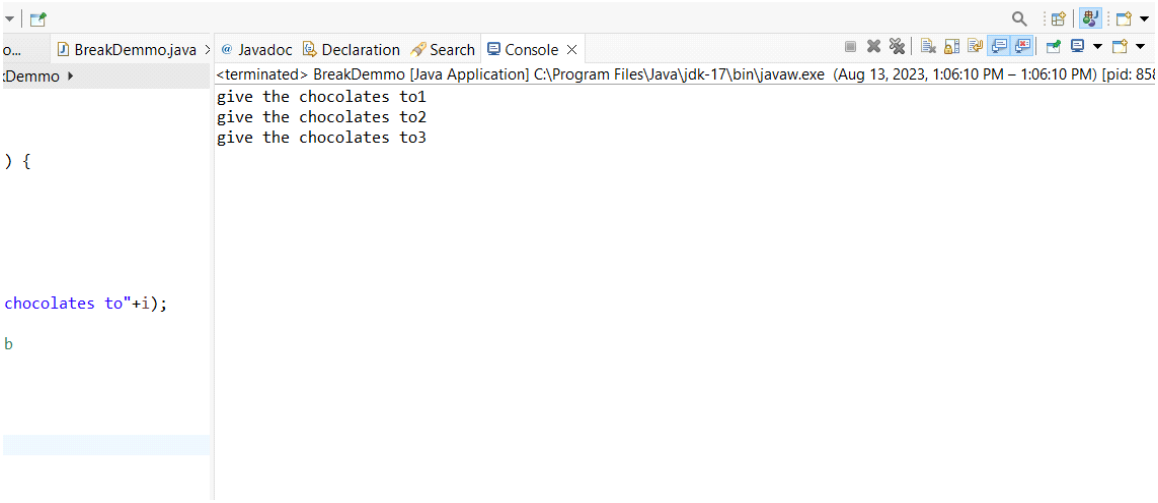
Output:



Program 14:

```
public class BreakDemmo {
public static void main(String[] args) {
		for(int i=1;i<=7;i++)
		{
			if(i==4)
			{
				break;
			}
			System.out.println("give the chocolates to"+i);
		}

	}

}
```

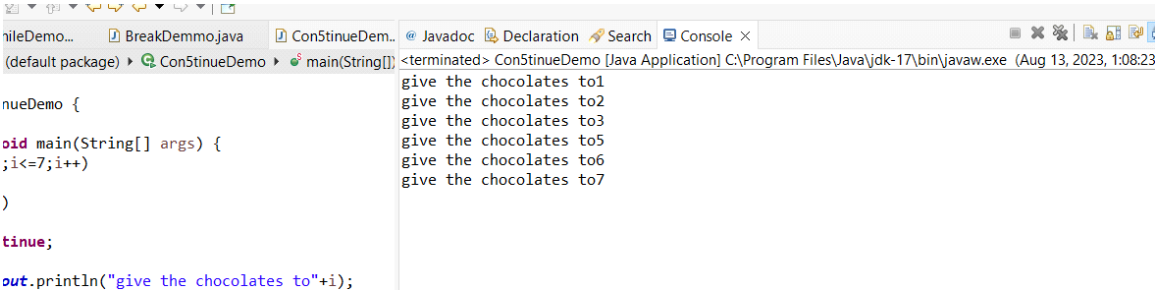
Output:



Program 15:

```
public class Con5tinueDemo {
public static void main(String[] args) {
		for(int i=1;i<=7;i++)
		{
			if(i==4)
			{
				continue;
			}
			System.out.println("give the chocolates to"+i);
		}
	}
}
```

Output:


nileDemo...
BreakDemmo.java
Con5tinueDem..
Javadoc
Declaration
Search
Console
(default package)
Con5tinueDemo
main(String[])
<terminated> Con5tinueDemo [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (Aug 13, 2023, 1:08:23
nueDemo {
oid main(String[] args) {
;i<=7;i++)
)
tinue;
out.println("give the chocolates to"+i);
give the chocolates to1
give the chocolates to2
give the chocolates to3
give the chocolates to5
give the chocolates to6
give the chocolates to7