// Switch Statements

```
import java.util.Scanner;

class Calculator {

   public static void main(String[] args) {

      int ch, n1, n2;

      System.out.println("1.Addition");

      System.out.println("2.Subtraction");

      System.out.println("3.Multiplication");

      System.out.println("4.Division");

      System.out.println("Enter your choice : ");


      Scanner in = new Scanner(System.in);

      ch = in.nextInt();

      System.out.println("Enter two operands: ");

      n1 = in.nextInt();

      n2 = in.nextInt();


      switch (ch) {

         case 1:

            System.out.println("sum = " + (n1 + n2));

            break;

         case 2:

            System.out.println("sub = " + (n1 - n2));

            break;

         case 3:
```

```
            System.out.println("mul = " + (n1 * n2));
            break;
        case 4:
            System.out.println("division = " + (n1 / n2));
            break;
        default:
            System.out.println("Error! Select only from 1 to 4");
      }
   }
}
```

Sample Output:

```
1.Addition
2.Subtraction
3.Multiplication
4.Division
Enter your choice :
1
Enter two operands:
15
25
sum = 40
```

//Grouped Switch - Vowel Checker:

```
class VowelChecker {

    public static void main(String args[]) {

        char ch = 'E';

        switch (ch) {

            case 'a':

            case 'e':

            case 'i':

            case 'o':

            case 'u':

            case 'A':

            case 'E':

            case 'I':

            case 'O':

            case 'U':

                System.out.println("It is a vowel");

                break;

            default:

                System.out.println("It is not a vowel");

        }

    }

}
```

Output:

It is a vowel

//Loops

//While loop:

```
import java.util.Scanner;

class while_loop {

   public static void main(String[] args) {

      System.out.println("Enter the Limit :");

      Scanner in = new Scanner(System.in);

      int n = in.nextInt();

      int i = 1;

      while(i <= n) {

         System.out.println(i);

         i++;

      }

   }

}
```

Sample Output (n=5):

```
Enter the Limit :

5

1

2

3

4

5
```

//do-while:

```
import java.util.Scanner;
```

```
class do_while {
   public static void main(String[] args) {
      System.out.println("Enter the Limit :");
      Scanner in = new Scanner(System.in);
      int n = in.nextInt();
      int i = 1;
      do {
         System.out.println(i);
         i++;
      } while(i <= n);
   }
}
```

For Loop:

```
import java.util.Scanner;
class for_loop {
   public static void main(String[] args) {
      System.out.println("Enter the Limit :");
      Scanner in = new Scanner(System.in);
      int n = in.nextInt();
      for(int i = 1; i <= n; i++) {
         System.out.println(i);
      }
   }
}
```

```
//Enhanced for loop
class Enhanced_for {
   public static void main(String[] args) {
      int number[] = {10, 20, 30, 40, 50};
      for(int n : number) {
         System.out.println(n);
      }
   }
}
```

Output:

```
10
20
30
40
50
```