1.

```java
public class EX01 {
    public static void main(String args[] ) {
        String str = new String("Welcome to Java Programming.");
        System.out.println("length of String: " + str.length());
    }
}
```
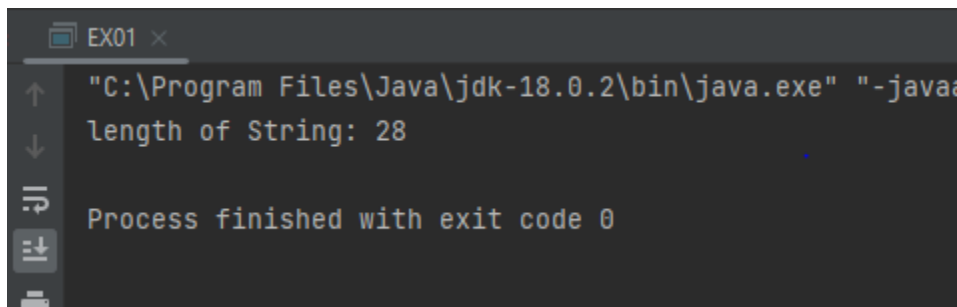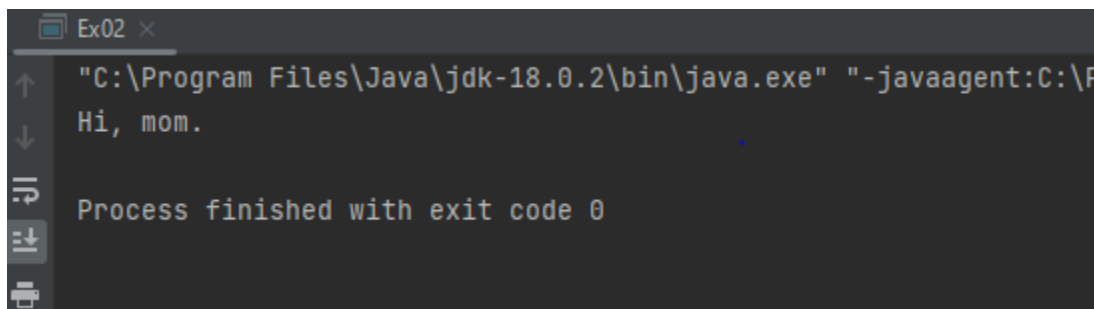
```
EX01 ×
    "C:\Program Files\Java\jdk-18.0.2\bin\java.exe" "-java
    length of String: 28

    Process finished with exit code 0
```
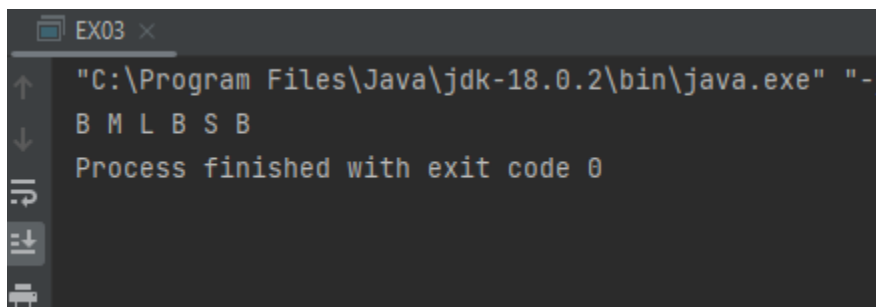
2.

```java
public class Ex02 {
    public static void main(String args[]) {
//        String str1 = new String("Welcome to Java Programming.");
//        String str2 = new String("");
        String hi = "Hi, ";
        String mom = "mom.";

        System.out.println(hi.concat(mom));
    }
}
```

```
Ex02 ×
    "C:\Program Files\Java\jdk-18.0.2\bin\java.exe" "-javaagent:C:\P
    Hi, mom.

    Process finished with exit code 0
```
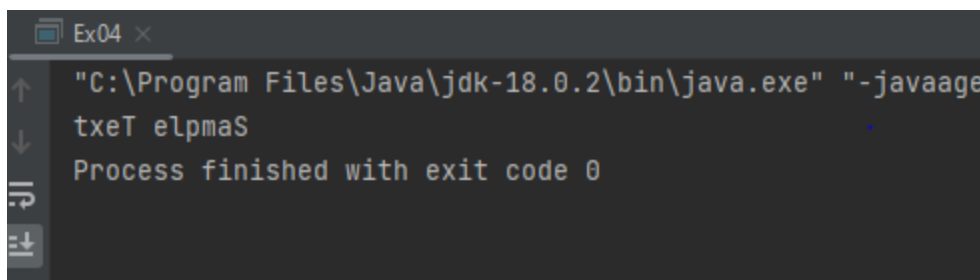
3.

```java
public class EX03 {
    public static void main(String args[]) {
        String fullName = "Banneheka Mudiyanselage Lakindu Banula Sirimewan Banneheka";
        String[] myName = fullName.split(" ");
        for (int i = 0; i < myName.length; i++) {
            String s = myName[i];
            System.out.print(s.charAt(0)+ " ");
        }
    }
}
```

```
EX03 ×
"C:\Program Files\Java\jdk-18.0.2\bin\java.exe" "-:
B M L B S B
Process finished with exit code 0
```

4.

```java
public class Ex04 {
    public static void main(String args[]) {
        String str = "Sample Text";
        for (int i = str.length(); i > 0; i--) {
            System.out.print(str.charAt(i-1));
        }
    }
}
```
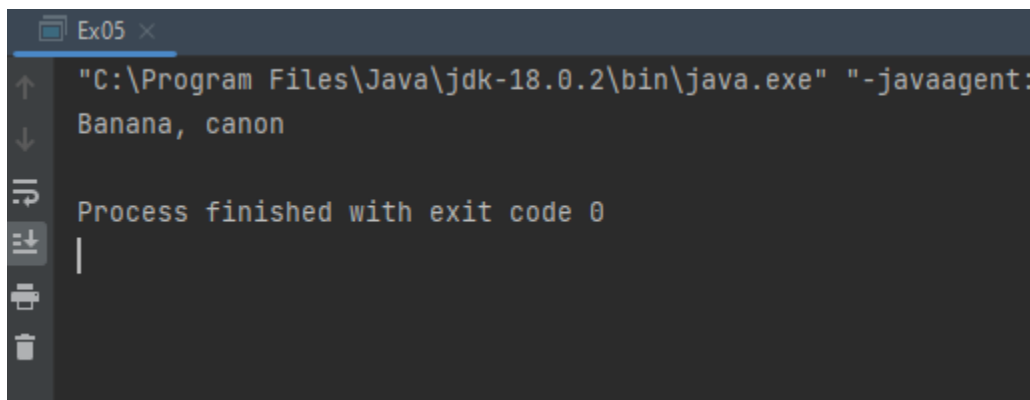
```
Ex04 ×
"C:\Program Files\Java\jdk-18.0.2\bin\java.exe" "-javaage
txeT elpmaS
Process finished with exit code 0
```

5.

```java
public class Ex05 {
    public static void main(String args[]) {
        String str1 = "Banana";
        String str2 = "Apple";
        System.out.println(str1.compareTo(str2) < 0? str1 + ", " + str2 :
str2 + ", " +  str1);

    }
}
```

```
Ex05 ×

    "C:\Program Files\Java\jdk-18.0.2\bin\java.exe" "-javaagent:
    Banana, canon


    Process finished with exit code 0
    |
```
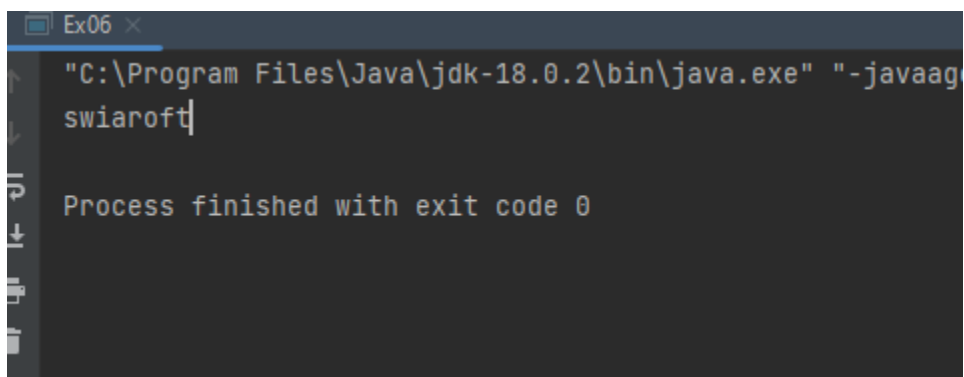
6.

```java
public class Ex06 {
    public static void main(String args[]) {
        String original ="software";
        StringBuilder result = new StringBuilder("hi");
        int index =original.indexOf('a');// index = 5
        result.setCharAt(0, original.charAt(0)); // result = si
        result.insert(1, original.charAt(4));// result = swi
        result.append(original.substring(1, 4)); // result = swioft
        result.insert(3, (original.substring(index, index+2) + "")); //
result = swiaroft
        System.out.println(result);
    }
}
```
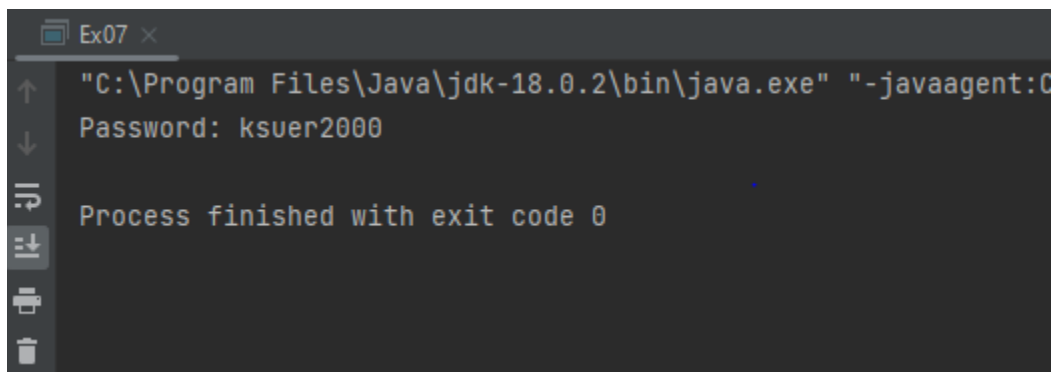result = swiaroft

```
Ex06 ×

    "C:\Program Files\Java\jdk-18.0.2\bin\java.exe" "-javaag
    swiaroft|


    Process finished with exit code 0
```
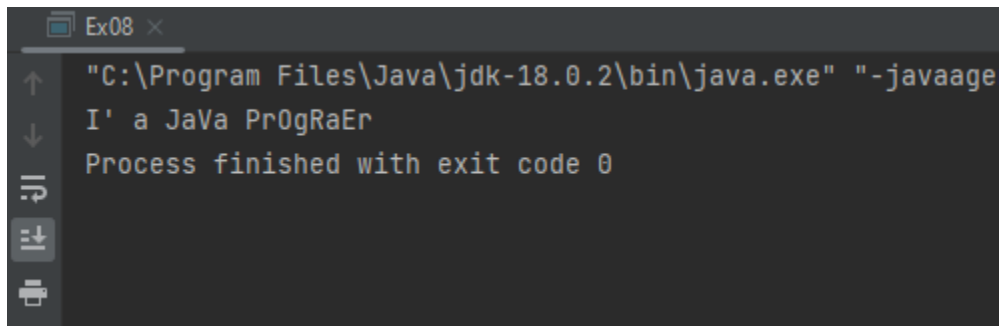
7.

```java
public class Ex07 {
    public static void main(String args[]) {
        String firstName = "Kamala";
        String middleName = "Sugarcane";
        String lastName = "Perera";
        int age = 20;

        StringBuilder password = new StringBuilder(" ");
        password.setCharAt(0, firstName.toLowerCase().charAt(0));
        password.append(middleName.toLowerCase().substring(0, 2));
        password.append(lastName.toLowerCase().substring(lastName.length()-
3,lastName.length()-1));
        password.append(age * 100);

        System.out.println("Password: " + password);

    }
}
```

```
Ex07 ×
    "C:\Program Files\Java\jdk-18.0.2\bin\java.exe" "-javaagent:C
    Password: ksuer2000


    Process finished with exit code 0
```

8.1.

```java
public class Ex08 {
    public static void main(String[] args) {
        String str = "I'm a JaVa PrOgRaMmEr";
        int mCount = 0;

        for(int i = 0; i < str.length(); i++){
            if(str.charAt(i) == 'm' || str.charAt(i) == 'M') {
                if (mCount >= 3) {
                    System.out.print(str.charAt(i));
                }
                mCount++;

            } else {
                System.out.print(str.charAt(i));
            }
        }
    }
}
```
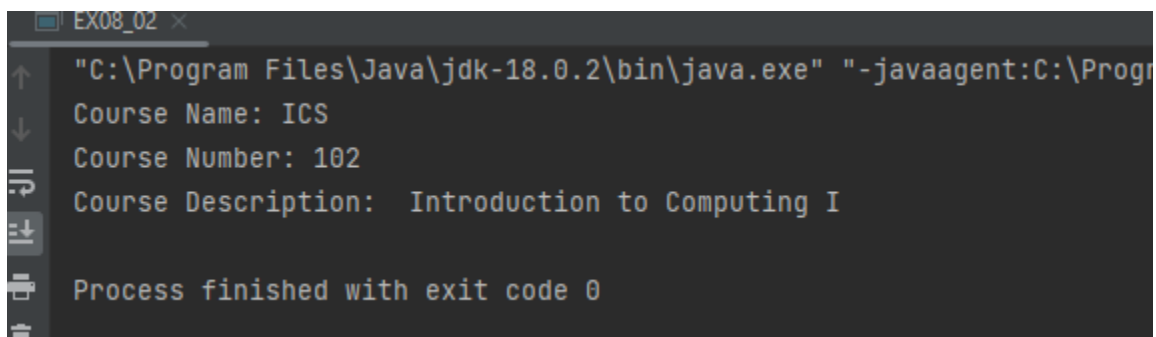
```
Ex08 ×
"C:\Program Files\Java\jdk-18.0.2\bin\java.exe" "-javaage
I' a JaVa PrOgRaEr
Process finished with exit code 0
```

8.2.

```java
public class EX08_02 {
    public static void main(String[] args) {
        String str = "ICS 102: Introduction to Computing I";
        String courseName = str.substring(0,3);
        String courseNumber = str.substring(4,7);
        String courseDescription = str.split(":")[1];

        System.out.println("Course Name: " + courseName);
        System.out.println("Course Number: " + courseNumber);
        System.out.println("Course Description: " + courseDescription);
    }
}
```
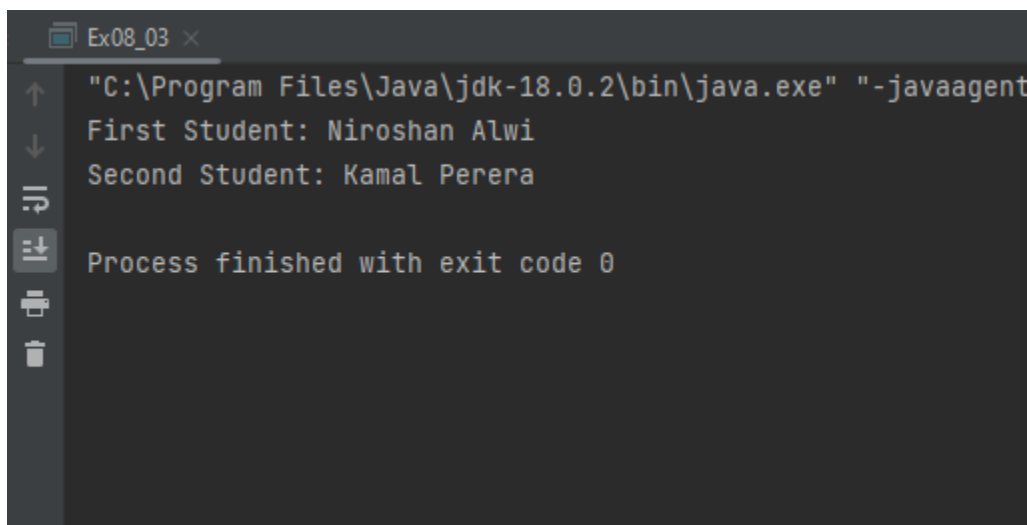
```
EX08_02 ×
"C:\Program Files\Java\jdk-18.0.2\bin\java.exe" "-javaagent:C:\Progr
Course Name: ICS
Course Number: 102
Course Description:  Introduction to Computing I

Process finished with exit code 0
```

8.3.

```java
public class Ex08_03 {
    public static void main(String[] args){
        String stu1 = "Niroshan Perera";
        String stu2 = "Kamal Alwi";

        System.out.println("First Student: " + stu1.split(" ")[0] + " " +
stu2.split(" ")[1]);
        System.out.println("Second Student: " + stu2.split(" ")[0] + " " +
stu1.split(" ")[1]);

    }
}
```

```
Ex08_03 ×
"C:\Program Files\Java\jdk-18.0.2\bin\java.exe" "-javaagent
First Student: Niroshan Alwi
Second Student: Kamal Perera

Process finished with exit code 0
```

9.

```java
public class Ex09 {
    public static void main(String[] args) {
        int[] Num = {40,28,10,81,23,45,47,18,76,64};
        int sum = 0;

        for(int i = 0; i < Num.length; i++){
            System.out.print(Num[i] + ", ");
            sum += Num[i];
        }

        System.out.println("Using For each: ");
        for (int number: Num) {
            System.out.print(number + ", ");
        }
        System.out.println("\nSum: " + sum);

    }
}
```
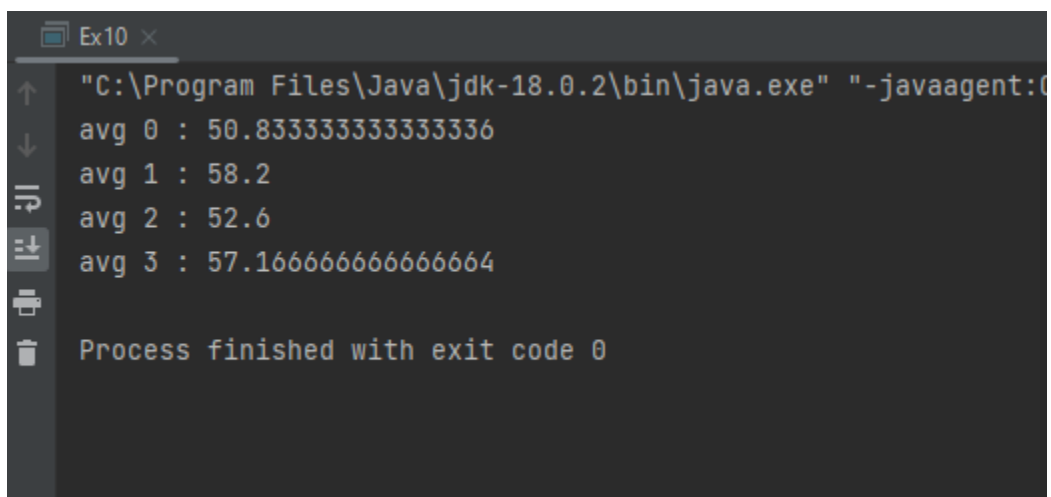
```
"C:\Program Files\Java\jdk-18.0.2\bin\java.exe" "-javaagent:C:\Pr
40, 28, 10, 81, 23, 45, 47, 18, 76, 64, Using For each:
40, 28, 10, 81, 23, 45, 47, 18, 76, 64,
Sum: 432

Process finished with exit code 0
```

10.

```java
public class Ex10 {
    public static void main(String[] args) {
        double [] [] weights = {{54.5, 50, 48}, {43, 56.5, 67, 65.5,59}, {45,
55, 63, 45.5, 54.5}, {66, 49.5,
                56}};
        double sum = 0;

        for(int i = 0; i < 4; i++){
            for(int j = 0; j < weights[i].length; j++) {
                sum += weights[i][j];
            }
            System.out.println("avg "+ i + " : " + sum/weights[i].length);
            sum =0;

        }

    }
}
```
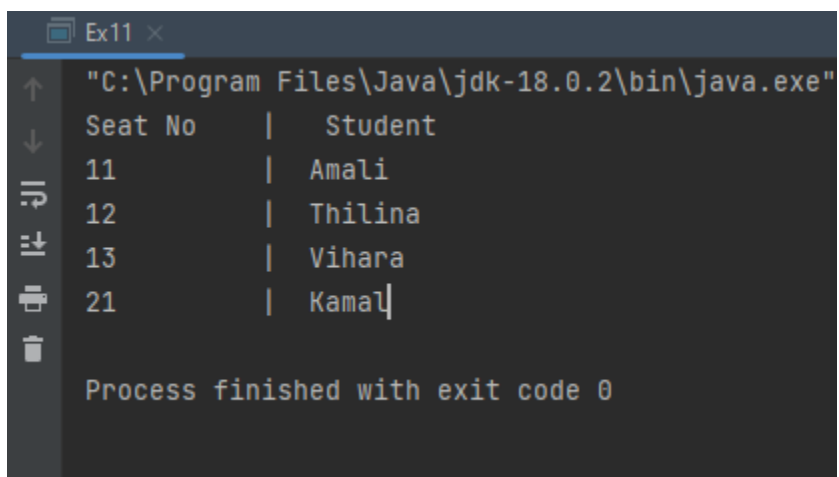
```
Ex10 ×
"C:\Program Files\Java\jdk-18.0.2\bin\java.exe" "-javaagent:(
avg 0 : 50.833333333333336
avg 1 : 58.2
avg 2 : 52.6
avg 3 : 57.166666666666664

Process finished with exit code 0
```

11.

```java
public class Ex11 {
    public static void main(String[] args) {
        String[][] names = {{"Amali","Thilina","Vihara"},{"Kamal"},{}};
        System.out.println("Seat No    |   Student");
        for(int i = 0; i < names.length; i++){
            for(int j =0; j < names[i].length; j++) {
                System.out.println((i+1)+""+(j+1)+"            |   "+
names[i][j]);
            }
        }

    }
}
```

```
Ex11 ×
"C:\Program Files\Java\jdk-18.0.2\bin\java.exe"
Seat No    |   Student
11         |   Amali
12         |   Thilina
13         |   Vihara
21         |   Kamal

Process finished with exit code 0
```