

```
1 import java.util.Scanner;
2 public class Main {
                                                                                       Enter prices for product 1:223
        public static void main(String[] args) {
                                                                                       666
            float[][] price = new float[10][3];
                                                                                       444
            Scanner scanner = new Scanner(System.in);
                                                                                       Enter prices for product 2:555
            for (int i = 0; i < 4; i++) {
6 -
                                                                                       666
                System.out.print("Enter prices for product " + (i + 1) + ":");
                                                                                       888
                for (int j = 0; j < 3; j++) {
                                                                                       Enter prices for product 3:324
8
                    price[i][j] = scanner.nextFloat();
                                                                                       561
10
                                                                                       283
                                                                                       Enter prices for product 4:500
            System.out.println("Prices entered:");
12
                                                                                       800
            for (int i = 0; i < 4; i++) {
13 -
                                                                                       734
                System.out.print("Product " + (i + 1) + ": ");
14
                                                                                       Prices entered:
                for (int j = 0; j < 3; j++) {
15
                                                                                       Product 1: 223.0 666.0 444.0
                    System.out.print(price[i][j] + " ");
                                                                                       Product 2: 555.0 666.0 888.0
16
17
                                                                                       Product 3: 324.0 561.0 283.0
                System.out.println();
                                                                                       Product 4: 500.0 800.0 734.0
18
19
            scanner.close();
                                                                                       === Code Execution Successful ===
20
21
22 }
```

```
1 import java.util.Scanner;
2 public class Main {
                                                                                      Output:
       public static void main(String[] args) {
                                                                                      5 5 5
            int[][] matrix = new int[][]{{5, 5, 5}, {5, 5}, {5, 5}, {5, 5}, {5, 5}}; 5 5 5
           System.out.println("Output:");
                                                                                      5 5 5
            for (int i = 0; i < matrix.length; i++) {
                                                                                      5 5 5
                for (int j = 0; j < matrix[i].length; j++) {</pre>
                   System.out.print(matrix[i][j] + " ");
                                                                                      === Code Execution Successful ===
               System.out.println();
10
11
12
13
14
```

```
public class Main {
   public static void main(String[] args) {
        byte[] values = new byte[10];
        for (int i = 0; i < values.length; i++) {
            values[i] = 1;
        }
        for (byte value : values) {
            System.out.print(value + " ");
        }
        }
    }
}</pre>
```

```
java -cp /tmp/rMsiSqYs6K/Main
1 1 1 1 1 1 1 1 1
=== Code Execution Successful ===
```

```
1 import java.util.Scanner;
2 public class Main {
      public static void main(String[] args) {
           Scanner scanner = new Scanner(System.in);
           int numberOfTests = 5;
           int[] scores = new int[number0fTests];
           for (int i = 0; i < numberOfTests; i++) {</pre>
               System.out.print("Enter score for test " + (i + 1) + ": ");
               scores[i] = scanner.nextInt();
           int total = 0;
           for (int score : scores) {
               total += score;
           double average = (double) total / numberOfTests;
           System.out.printf("The average score is: %.2f%n", average);
```

```
java -cp /tmp/JYNUmFPLBq/Main
Enter score for test 1: 20
Enter score for test 2: 20
Enter score for test 3: 20
Enter score for test 4: 15
Enter score for test 5: 19
The average score is: 18.80
=== Code Execution Successful ===
```

```
1 import java.util.Scanner;
2 public class MatrixOperations{
      public static void main(String[] args) {
          Scanner scanner = new Scanner(System.in);
          int[][] matrixA = new int[2][2];
          int[][] matrixB = new int[2][2];
           boolean running = true;
           while (running) {
               System.out.println("Menu:");
               System.out.println("a. Enter Matrix A");
               System.out.println("b. Enter Matrix B");
12
               System.out.println("c. Display A + B");
               System.out.println("d. Display A - B");
14
               System.out.println("e. Display A * B");
               System.out.println("f. Exit");
               System.out.print("Choose an option: ");
               String choice = scanner.nextLine().toLowerCase();
18 -
               switch (choice) {
                       matrixA = enterMatrix(scanner, "A");
                       break;
                       matrixB = enterMatrix(scanner, "B");
                       break;
                  case "c":
                       displayMatrix(addMatrices(matrixA, matrixB), "A + B");
27
                       break;
                       displayMatrix(subtractMatrices(matrixA, matrixB), "A - B");
                       break;
31
                       displayMatrix(multiplyMatrices(matrixA, matrixB), "A * B");
33
                       break;
                       running = false;
                       break;
                   default:
                       System.out.println("Invalid option, please try again.");
          System.out.println("Exiting program.");
           scanner.close();
43
44 -
      public static int[][] enterMatrix(Scanner scanner, String matrixName) {
          int[][] matrix = new int[2][2];
          System out println("Enter values for Matrix " + matrixName + ".")
```

```
Menu:
a. Enter Matrix A
b. Enter Matrix B
c. Display A + B
d. Display A - B
e. Display A * B
f. Exit
Choose an option: a
Enter values for Matrix A:
Element [1][1]: 2
Element [1][2]: 5
Element [2][1]: 1
Element [2][2]: 3
Menu:
a. Enter Matrix A
b. Enter Matrix B
c. Display A + B
d. Display A - B
e. Display A * B
f. Exit
Choose an option: c
Result of A + B:
2 5
1 3
Menu:
a. Enter Matrix A
b. Enter Matrix B
c. Display A + B
d. Display A - B
e. Display A * B
f. Exit
Choose an option: exit
=== Session Ended. Please Run the code again ===
```

```
46
           System.out.println("Enter values for Matrix " + matrixName + ":");
47
            for (int i = 0; i < 2; i++) {
48
                for (int j = 0; j < 2; j++) {
49
                    System.out.print("Element [" + (i + 1) + "][" + (j + 1) + "]: ");
50
                    matrix[i][j] = scanner.nextInt();
                }}
52
            scanner.nextLine();
53
            return matrix;
54
55
        public static int[][] addMatrices(int[][] a, int[][] b) {
56
            int[][] result = new int[2][2];
57
            for (int i = 0; i < 2; i++) {
58
                for (int j = 0; j < 2; j++) {
59
                    result[i][j] = a[i][j] + b[i][j];
60
61
62
           return result;
63
64
        public static int[][] subtractMatrices(int[][] a, int[][] b) {
65
            int[][] result = new int[2][2];
66
           for (int i = 0; i < 2; i++) {
67
                for (int j = 0; j < 2; j++) {
68
                    result[i][j] = a[i][j] - b[i][j];
69
70
71
            return result;
72
73
        public static int[][] multiplyMatrices(int[][] a, int[][] b) {
74
            int[][] result = new int[2][2];
75
           for (int i = 0; i < 2; i++) {
76
                for (int j = 0; j < 2; j++) {
                    result[i][j] = a[i][0] * b[0][j] + a[i][1] * b[1][j];
78
79
80
           return result;
81
82
        public static void displayMatrix(int[][] matrix, String operation) {
83
            System.out.println("Result of " + operation + ":");
84
            for (int[] row : matrix) {
85
                for (int element : row) {
86
                    System.out.print(element + " ");
87
88
                System.out.println();
89
90
        }}
```

```
Menu:
a. Enter Matrix A
b. Enter Matrix B
c. Display A + B
d. Display A - B
e. Display A * B
f. Exit
Choose an option: a
Enter values for Matrix A:
Element [1][1]: 2
Element [1][2]: 5
Element [2][1]: 1
Element [2][2]: 3
Menu:
a. Enter Matrix A
b. Enter Matrix B
c. Display A + B
d. Display A - B
e. Display A * B
f. Exit
Choose an option: c
Result of A + B:
2 5
1 3
Menu:
a. Enter Matrix A
b. Enter Matrix B
c. Display A + B
d. Display A - B
e. Display A * B
```

=== Session Ended. Please Run the code again ===

f. Exit

Choose an option: exit