

Basic Programming Practicum Job Sheet 9



From:

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Class:

1 |

Absence:

01

Major:

Information Technology

Study Program:

Informatic Engineering

Experiment 1: Declare, Initialize, and Display 2-Dimensional Array

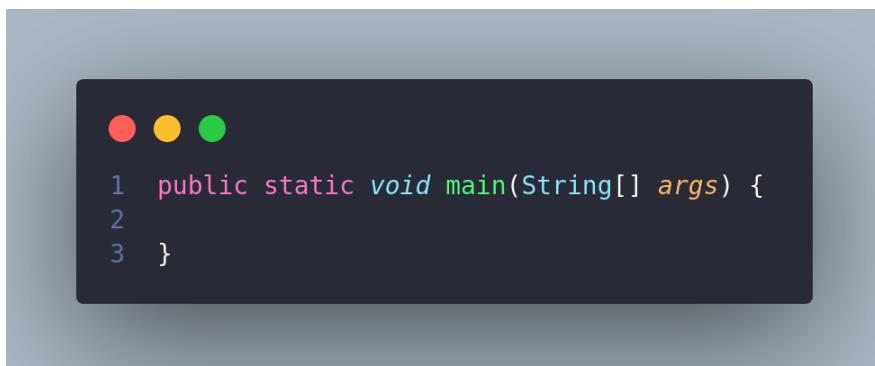
1. Create a new project
2. Create a new class, name it Arr1



A screenshot of a Java code editor showing the beginning of a class definition. The code is:

```
1 public class Arr1 {  
2  
3 }
```

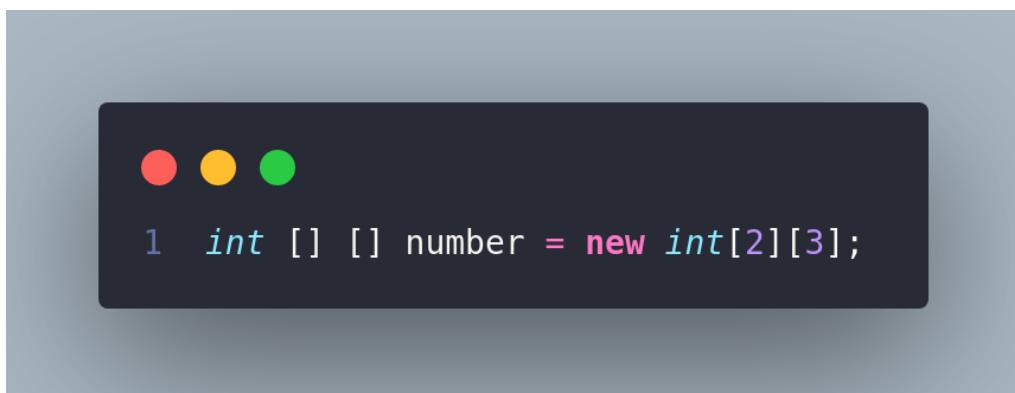
3. Write the basic structure of the Java programming language which contains the main() function



A screenshot of a Java code editor showing the beginning of a main() method. The code is:

```
1 public static void main(String[] args) {  
2  
3 }
```

4. Create an array of integer type named number with a row capacity of 2 elements and a column of 3 elements



A screenshot of a Java code editor showing the declaration of a 2D integer array named 'number'. The code is:

```
1 int [] [] number = new int[2][3];
```

5. Fill in each element of the value array as follows:



```
1 number[0][0] = 12;
2 number[0][1] = 14;
3 number[0][2] = 34;
4 number[1][0] = 20;
5 number[1][1] = 24;
6 number[1][2] = 67;
```

6. Display all contents of the elements to the screen



```
1 System.out.println(number[0][0] + " " + number[0][1] + " " + number[0][2]);
2 System.out.println(number[1][0] + " " + number[1][1] + " " + number[1][2]);
```

7. Compile and run the program. Match the results of the running programs that you have created according to the following display

12 14 34

20 24 67

Code :

```
1 public class Arr1 {  
2     public static void main(String[] args) {  
3         int [] [] number = new int[2][3];  
4  
5         number[0][0] = 12;  
6         number[0][1] = 14;  
7         number[0][2] = 34;  
8         number[1][0] = 20;  
9         number[1][1] = 24;  
10        number[1][2] = 67;  
11  
12        System.out.println(number[0][0] + " " + number[0][1] + " " + number[0][2]);  
13        System.out.println(number[1][0] + " " + number[1][1] + " " + number[1][2]);  
14  
15    }  
16 }  
17 }
```

Result :

```
└─(zharsuke㉿LAPTOP-FCSRQQ00)-[~/Documents/College/Basic Programming Practicum/Meet 11/coding]  
$ javac Arr1.java && java Arr1.java  
12 14 34  
20 24 67  
number[0][0] = 20;  
number[0][1] = 14;  
number[0][2] = 34;  
number[1][0] = 20;  
number[1][1] = 24;  
number[1][2] = 67;  
System.out.println(number[0][0] + " " + number[0][1] + " " + number[0][2]);  
System.out.println(number[1][0] + " " + number[1][1] + " " + number[1][2]);  
└─(zharsuke㉿LAPTOP-FCSRQQ00)-[~/Documents/College/Basic Programming Practicum/Meet 11/coding]  
$
```

Questions!

1. Should the array elements be filled sequentially? Explain!
2. In step 5, modify the code so that the filled elements are only array elements in odd row positions! Can this be done? Prove it!

Answer

1. No, because we can display the array based on the line and column indexes.
2. Code :

```
● ● ●

1 public class Arr1 {
2     public static void main(String[] args) {
3
4         int [] [] number = new int[2][3];
5
6         // number[0][0] = 12;
7         // number[0][1] = 14;
8         // number[0][2] = 34;
9         number[1][0] = 20;
10        number[1][1] = 24;
11        number[1][2] = 67;
12
13        System.out.println(number[0][0] + " " + number[0][1] + " " + number[0][2]);
14        System.out.println(number[1][0] + " " + number[1][1] + " " + number[1][2]);
15
16    }
17 }
```

Result :

```
└─(zharsuke@LAPTOP-FCSRQQ00)-[~/Documents/College/Basic Programming Practicum/Meet 11/coding]
  $ javac Arr1.java && java Arr1.java
0 0 0
20 24 67OUTLINE
└─(zharsuke@LAPTOP-FCSRQQ00)-[~/Documents/College/Basic Programming Practicum/Meet 11/coding]
  $
```

Experiment 2: Display 2 Dimensional Array Elements UsingLoop

1. Create a new class, name it Arr2

```
● ● ●

1 public class Arr2 {
2
3 }
```

2. Write the basic structure of the Java programming language which contains the main() function



```
1 public static void main(String[] args) {  
2  
3 }
```

3. Create an array of integer type named number with a row capacity of 2 elements and a column of 3 elements



```
1 int [] [] number = new int[2][3];
```

4. Fill in each element of the value array as follows:



```
1 number[0][0] = 12;  
2 number[0][1] = 14;  
3 number[0][2] = 34;  
4 number[1][0] = 20;  
5 number[1][1] = 24;  
6 number[1][2] = 67;
```

5. Using a loop, display all the contents of the elements from the number array

```
● ● ●  
1  for (int i = 0; i < 2; i++) {  
2      for (int j = 0; j < 3; j++) {  
3          System.out.print(number[i][j] + " ");  
4      }  
5      System.out.println();  
6  }
```

6. Compile and run the program. Match the results of the running programs that you have created according to the following display

12 14 34
20 24 67

Code :

```

1 public class Arr2 {
2     public static void main(String[] args) {
3
4         int [] [] number = new int[2][3];
5
6         number[0][0] = 12;
7         number[0][1] = 14;
8         number[0][2] = 34;
9         number[1][0] = 20;
10        number[1][1] = 24;
11        number[1][2] = 67;
12
13        for (int i = 0; i < 2; i++) {
14            for (int j = 0; j < 3; j++) {
15                System.out.print(number[i][j] + " ");
16            }
17            System.out.println();
18        }
19    }
20}
21

```

Result :

```

└─(zharsuke@LAPTOP-FCSRQQ00)-[~/Documents/College/Basic Programming Practicum/Meet 11/coding]
$ javac Arr2.java && java Arr2
12 14 34
20 24 67
└─(zharsuke@LAPTOP-FCSRQQ00)-[~/Documents/College/Basic Programming Practicum/Meet 11/coding]
$ 

```

1. How many columns was the array in Experiment 2? Change the number of columns so that the array declaration and instantiation lookslike the following code Then, fill in the array elements with any value, corresponding to the addition of these columns. Run the program again, what happened?

2. In step 5, change the program code as follows Run the program after the change, w

Questions!

- How many columns was the array in Experiment 2? Change the number of columns to 4 so that the array declaration and instantiation lookslike the following code Then, fill in the array elements with any value, corresponding to the addition of these columns. Run the program again, what happened?

```
int [] [] number = new int [2] [4];
```

- In step 5, change the program code as follows Run the program after the change, what happened?

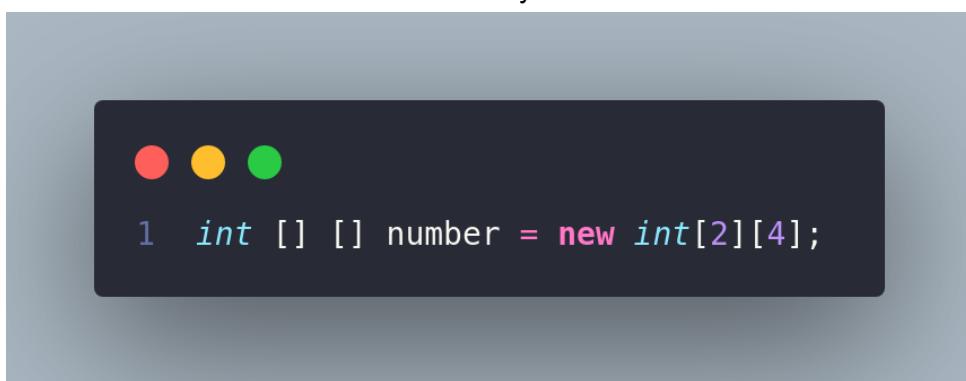
```
for (int i = 0; i < number.length; i++) {  
    for (int j = 0; j < number[0].length; j++) {  
        System.out.print(number[i][j] + " ");  
    }  
    System.out.println("");  
}
```

3. Regarding displaying all array elements, change the program code to display array elements as follows

```
for (int array[] : number) {  
    for (int r : array) {  
        System.out.print(r + " ");  
    }  
    System.out.println("");  
}
```

Answer

1. There are 3 columns in the number array.



Code :

```
 1 public class Arr2 {  
 2     public static void main(String[] args) {  
 3  
 4         int [] [] number = new int[2][4];  
 5  
 6         number[0][0] = 12;  
 7         number[0][1] = 14;  
 8         number[0][2] = 34;  
 9         number[0][3] = 99;  
10         number[1][0] = 20;  
11         number[1][1] = 24;  
12         number[1][2] = 67;  
13         number[1][3] = 98;  
14  
15         for (int i = 0; i < 2; i++) {  
16             for (int j = 0; j < 3; j++) {  
17                 System.out.print(number[i][j] + " ");  
18             }  
19             System.out.println();  
20         }  
21     }  
22 }  
23 }
```

Result :

```
[zharsuke@LAPTOP-FCSRQQ00-~/Documents/College/Basic Programming Practicum/Meet 11/coding]  
$ javac Arr2.java && java Arr2.java  
12 14 34  
20 24 67
```

The result is the same as before because in the loop conditioning, looping on the column is only done 3 times, while the number of columns is now 4, if you want to display the contents of all columns then you have to modify the conditioning.

2. Code :

```
 1 public class Arr2 {  
 2     public static void main(String[] args) {  
 3  
 4         int [] [] number = new int[2][4];  
 5  
 6         number[0][0] = 12;  
 7         number[0][1] = 14;  
 8         number[0][2] = 34;  
 9         number[0][3] = 99;  
10         number[1][0] = 20;  
11         number[1][1] = 24;  
12         number[1][2] = 67;  
13         number[1][3] = 98;  
14  
15         for (int i = 0; i < number.length; i++) {  
16             for (int j = 0; j < number[0].length; j++) {  
17                 System.out.print(number[i][j] + " ");  
18             }  
19             System.out.println();  
20         }  
21     }  
22 }  
23 }
```

Result :

```
[zharsuke@LAPTOP-FCSRQQ00] - [~/Documents/College/Basic Programming Practicum/Meet 11/coding]  
$ javac Arr2.java && java Arr2.java  
12 14 34 99  
20 24 67 98  
[zharsuke@LAPTOP-FCSRQQ00] - [~/Documents/College/Basic Programming Practicum/Meet 11/coding]  
$
```

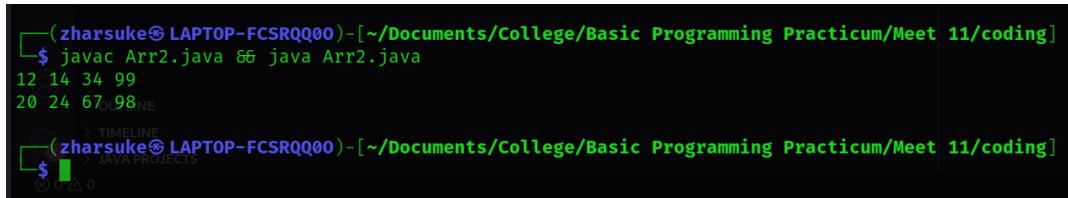
All elements in the array are displayed, because in looping conditioning, the array is looped as many times as its row length and column length.

3. Code :



```
1 for (int[] array : number) {  
2     for (int r : array) {  
3         System.out.print(r + " ");  
4     }  
5     System.out.println();  
6 }
```

Result :



```
[zarsuke@LAPTOP-FCSRQQ00]~/Documents/College/Basic Programming Practicum/Meet 11/coding]  
$ javac Arr2.java && java Arr2.java  
12 14 34 99  
20 24 67 98  
[zarsuke@LAPTOP-FCSRQQ00]~/Documents/College/Basic Programming Practicum/Meet 11/coding]  
$
```

The result is the same as before, but the code writing is different because it uses nested for each.

Experiment 3: Filling in 2 Dimensional Array Elements viaKeyboard

1. Create a new class, name it Arr3



```
1 public class Arr3 {  
2  
3 }
```

2. Write the basic structure of the Java programming language which contains the main() function

```
● ● ●  
1 public static void main(String[] args) {  
2  
3 }
```

3. Add the Scanner library

```
● ● ●  
1 import java.util.Scanner;
```

4. Make a Scanner declaration with the name input

```
● ● ●  
1 Scanner input = new Scanner(System.in);
```

5. Create an array of integer type named number with a row capacity of 2 elements and a column of 3 elements

```
● ● ●  
1 int [] [] number = new int[2][3];
```

6. Using a loop, create an input to fill in the number array element

```
● ● ●  
1 for (int i = 0; i < number.length; i++) {  
2     for (int j = 0; j < number[0].length; j++) {  
3         System.out.print("Enter a number [" + i + "] [" + j + "]: ");  
4         number[i][j] = input.nextInt();  
5     }  
6     System.out.println("-----");  
7 }
```

7. Using a loop, display all the contents of the elements from the number array

```
● ● ●  
1 for (int i = 0; i < number.length; i++) {  
2     for (int j = 0; j < number[0].length; j++) {  
3         System.out.print(number[i][j] + " ");  
4     }  
5     System.out.println("");  
6 }
```

8. Compile and run the program. Match the results of the running programs that you have created according to the following display

```
Enter a number [0][0]: 7  
Enter a number [0][1]: 3  
Enter a number [0][2]: 9  
-----  
Enter a number [1][0]: 11  
Enter a number [1][1]: 4  
Enter a number [1][2]: 2  
-----  
7 3 9  
11 4 2
```

Code :

```

1 import java.util.Scanner;
2
3 public class Arr3 {
4     public static void main(String[] args) {
5
6         Scanner input = new Scanner(System.in);
7
8         int [] [] number = new int[2][3];
9
10        for (int i = 0; i < number.length; i++) {
11            for (int j = 0; j < number[0].length; j++) {
12                System.out.print("Enter a number [" + i + "] [" + j + "]: ");
13                number[i][j] = input.nextInt();
14            }
15            System.out.println("-----");
16        }
17
18        for (int i = 0; i < number.length; i++) {
19            for (int j = 0; j < number[0].length; j++) {
20                System.out.print(number[i][j] + " ");
21            }
22            System.out.println("");
23        }
24
25        input.close();
26    }
27 }

```

Result :

```

--(zharsuke@LAPTOP-FCSRQQ00)-[~/Documents/College/Basic Programming Practicum/Meet 11/coding]
$ javac Arr3.java && java Arr3.java
Enter a number [0] [0]: 7
Enter a number [0] [1]: 3
Enter a number [0] [2]: 9
-----
Enter a number [1] [0]: 11
Enter a number [1] [1]: 4
Enter a number [1] [2]: 2
-----
7 3 9
11 4 2
--(zharsuke@LAPTOP-FCSRQQ00)-[~/Documents/College/Basic Programming Practicum/Meet 11/coding]
$ 

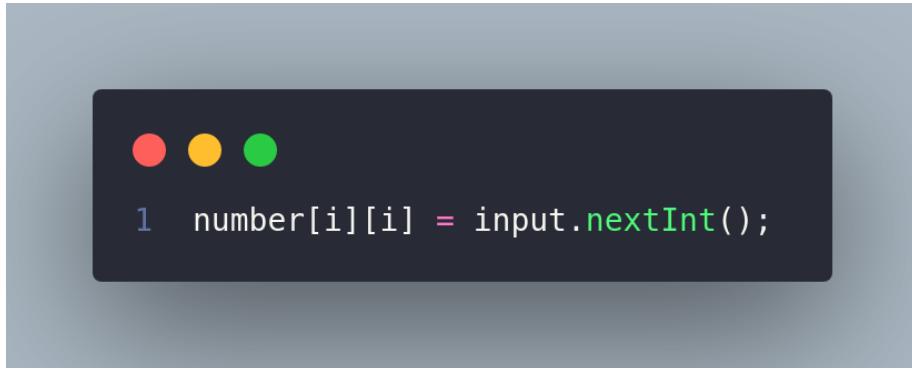
```

Questions!

1. In step 6 can position j be replaced with position i? Explain!
2. Add program code to determine the number of rows and columns of array elements dynamically (rows and columns are determined when the program runs through the keyboard)!
3. Modify the program code to display array elements using foreach!

Answer

1. Code :



Result :

```
[zharsuke@LAPTOP-FCSRQQ00] - [~/Documents/College/Basic Programming Practicum/Meet 11/coding]
$ java Arr3
Enter a number [0] [0]: 9
Enter a number [0] [1]: 8
Enter a number [0] [2]: 7
Enter a number [1] [0]: 6
Enter a number [1] [1]: 5
Enter a number [1] [2]: 4
7 0 0
0 4 0 > OUTLINE
[zharsuke@LAPTOP-FCSRQQ00] - [~/Documents/College/Basic Programming Practicum/Meet 11/coding]
$
```

It can, even though the code doesn't have an error, the result is not what you want.

2. Code :

```
1 import java.util.Scanner;
2
3 public class Arr3 {
4     public static void main(String[] args) {
5
6         Scanner input = new Scanner(System.in);
7
8         int line, column;
9
10        System.out.print("Insert amount of line array : ");
11        line = input.nextInt();
12        System.out.print("Insert amount of column array : ");
13        column = input.nextInt();
14
15        int [] [] number = new int[line][column];
16
17        for (int i = 0; i < number.length; i++) {
18            for (int j = 0; j < number[0].length; j++) {
19                System.out.print("Enter a number [" + i + "] [" + j + "]: ");
20                number[i][j] = input.nextInt();
21            }
22            System.out.println("-----");
23        }
24
25        for (int i = 0; i < number.length; i++) {
26            for (int j = 0; j < number[0].length; j++) {
27                System.out.print(number[i][j] + " ");
28            }
29            System.out.println("");
30        }
31
32        input.close();
33    }
34 }
```

Result :

```
[zharsuke@LAPTOP-FCSRQQ00] - [~/Documents/College/Basic Programming Practicum/Meet 11/coding]
$ javac Arr3.java && java Arr3.java
Insert amount of line array : 3
Insert amount of column array : 3
Enter a number [0] [0]: 9 10
Enter a number [0] [1]: 8 11
Enter a number [0] [2]: 7 12
Enter a number [1] [0]: 6 13
Enter a number [1] [1]: 5 14
Enter a number [1] [2]: 4 15
Enter a number [2] [0]: 3 16
Enter a number [2] [1]: 2 17
Enter a number [2] [2]: 1 18
9 8 7
6 5 4
3 2 1 > OUTLINE
$
```

3. Code :

```
1 import java.util.Scanner;
2
3 public class Arr3 {
4     public static void main(String[] args) {
5
6         Scanner input = new Scanner(System.in);
7
8         int line, column;
9
10        System.out.print("Insert amount of line array : ");
11        line = input.nextInt();
12        System.out.print("Insert amount of column array : ");
13        column = input.nextInt();
14
15        int [] [] number = new int[line][column];
16
17        for (int i = 0; i < number.length; i++) {
18            for (int j = 0; j < number[0].length; j++) {
19                System.out.print("Enter a number [" + i + "] [" + j + "]: ");
20                number[i][j] = input.nextInt();
21            }
22            System.out.println("-----");
23        }
24
25        for (int[] l : number) {
26            for (int r : l) {
27                System.out.print(r + " ");
28            }
29            System.out.println();
30        }
31
32        input.close();
33    }
34 }
```

Result :

```
(zharsuke@LAPTOP-FCSRQQ00)-[~/Documents/College/Basic Programming Practicum/Meet 11/coding]
└─$ javac Arr3.java && java Arr3.java
Insert amount of line array : 3
Insert amount of column array : 3
Enter a number [0] [0]: 1
Enter a number [0] [1]: 2
Enter a number [0] [2]: 3
Enter a number [1] [0]: 4
Enter a number [1] [1]: 5
Enter a number [1] [2]: 6
Enter a number [2] [0]: 7
Enter a number [2] [1]: 8
Enter a number [2] [2]: 9
1 2 3
4 5 6
7 8 9 > OUTLINE
└─$
```

3. Assignment

1. Create a program that has two arrays as follows:

The first array is a one-dimensional array char CODE [10], containing the license plate codes

The second array is a two-dimensional array containing the city names which are paired with the license plate codes

The illustration of the array display is as follows:

A	B	A	N	T	E	N			
B	J	A	K	A	R	T	A		
D	B	A	N	D	U	N	G		
E	C	I	R	E	B	O	N		

F	B	O	G	O	R				
G	P	E	K	A	L	O	N	G	A
H	S	E	M	A	R	A	N	G	
L	S	U	R	A	B	A	Y	A	
N	M	A	L	A	N	G			
T	T	E	G	A	L				

2. Create a program containing a two-dimensional array having the row and column sizes obtained from keyboard input. Then, make input to fill the array elements. Next, make a menu choice that consists of:

- (MIN Value).** Display the value of the smallest array element to the screen
- (MIN Value & Amount).** Display to the screen the smallest value and how many the smallest value is, and also display the row and column location of the minimum value.
- (Array conditions).** Display the word "FOUND" on the screen if there is value of 50 between the two-dimensional array elements, otherwise print the word "NOT FOUND".

Answer

1. Code :

```
● ● ●
1 public class ass1 {
2     public static void main(String[] args) {
3
4         // char [] plate = new char[10];
5
6         char [] plate = {'A', 'B', 'D', 'E', 'F', 'G', 'H', 'L','N', 'T'};
7
8         char [] [] city = {
9             {'B', 'A', 'N', 'T', 'E', 'N'},
10            {'J', 'A', 'K', 'A', 'R', 'T', 'A'},
11            {'B', 'A', 'N', 'D', 'U', 'N', 'G'},
12            {'C', 'I', 'R', 'E', 'B', 'O', 'N'},
13            {'B', 'O', 'G', 'O', 'R'},
14            {'P', 'E', 'K', 'A', 'L', 'O', 'N', 'G', 'A', 'N'},
15            {'S', 'E', 'M', 'A', 'R', 'A', 'N', 'G'},
16            {'S', 'U', 'R', 'A', 'B', 'A', 'Y', 'A'},
17            {'M', 'A', 'L', 'A', 'N', 'G'},
18            {'T', 'E', 'G', 'A', 'N', 'L'}
19        };
20
21        for (int i = 0; i < city.length; i++) {
22            System.out.print(plate[i] + " = ");
23            for (int j = 0; j < city[i].length; j++) {
24                System.out.print(city[i][j] + " ");
25            }
26            System.out.println();
27        }
28    }
29}
30 }
```

Result :

```
└─(zharsuke@LAPTOP-FCSRQQ00)-[~/Documents/College/Basic Programming Practicum/Meet 11/coding]
$ javac ass1.java && java ass1.java
A = B A N T E N
B = J A K A R T A
D = B A N D U N G
E = C I R E B O N
F = B O G O R
G = P E K A L O N G A N
H = S E M A R A N G
L = S U R A B A Y A
N = M A L A N G
T = T E G A N L
```

2. A

Code :

```
● ● ●

1 import java.util.*;
2 public class ass2a {
3     public static void main(String[] args) {
4
5         Scanner scanner = new Scanner(System.in);
6         int line, column;
7
8         System.out.print("Insert amount of line : ");
9         line = scanner.nextInt();
10        System.out.print("Insert amount of column : ");
11        column = scanner.nextInt();
12        int [][] num = new int[line][column];
13
14        System.out.println();
15
16        for (int i = 0; i < num.length; i++) {
17            for (int j = 0; j < num[i].length; j++) {
18                System.out.print("Insert number array [" + i + "] [" + j + "] : ");
19                num[i][j] = scanner.nextInt();
20            }
21            System.out.println();
22        }
23
24        System.out.println("Number Array = {");
25
26        for (int i = 0; i < num.length; i++) {
27            System.out.print("[");
28            for (int j = 0; j < num[i].length; j++) {
29                if (j > 0 && j < num[i].length) {
30                    System.out.print(",");
31                }
32                System.out.print(num[i][j]);
33            }
34            System.out.print("]\n");
35        }
36        System.out.println("}");
37
38        System.out.println();
39
40        int min = num[0][0];
41
42        for (int i = 0; i < num.length; i++) {
43            for (int j = 0; j < num[i].length; j++) {
44                if (num[i][j] < min) {
45                    min = num[i][j];
46                }
47            }
48        }
49
50        System.out.println("The smallest number = " + min);
51
52        scanner.close();
53    }
54 }
```

Result :

```
(zharsuke@LAPTOP-FCSRQQ00)-[~/Documents/College/Basic Programming Practicum/Meet 11/coding]
$ javac ass2a.java && java ass2a.java [][] num = new int[line][column];
Insert amount of line : 3      13
Insert amount of column : 3    14
Insert number array [0] [0]: 99 15
Insert number array [0] [1]: 98
Insert number array [0] [2]: 97
Insert number array [1] [0]: 97 19
Insert number array [1] [1]: 98
Insert number array [1] [2]: 99
Insert number array [2] [0]: 98 23
Insert number array [2] [1]: 97
Insert number array [2] [2]: 99
Number Array = {               27
[99,98,97]                   28
[97,98,99]                   29
[98,97,99]                   30
}
The smallest number = 97       33
                               34
(zharsuke@LAPTOP-FCSRQQ00)-[~/Documents/College/Basic Programming Practicum/Meet 11/coding]
$
```

B

Code :

```
● ● ●
1 import java.util.*;
2 public class ass2b {
3     public static void main(String[] args) {
4
5         Scanner scanner = new Scanner(System.in);
6         int line, column;
7
8         System.out.print("Insert amount of line : ");
9         line = scanner.nextInt();
10        System.out.print("Insert amount of column : ");
11        column = scanner.nextInt();
12        int [][] num = new int[line][column];
13
14        System.out.println();
15
16        for (int i = 0; i < num.length; i++) {
17            for (int j = 0; j < num[i].length; j++) {
18                System.out.print("Insert number array [" + i + "] [" + j + "] : ");
19                num[i][j] = scanner.nextInt();
20            }
21            System.out.println();
22        }
23
24        System.out.println("Number Array = {");
25
26        for (int i = 0; i < num.length; i++) {
27            System.out.print("[");
28            for (int j = 0; j < num[i].length; j++) {
29                if (j > 0 && j < num[i].length) {
30                    System.out.print(",");
31                }
32                System.out.print(num[i][j]);
33            }
34            System.out.print("]\n");
35        }
36        System.out.println("}");
37
38        System.out.println();
39
40        int min = num[0][0];
41        int min_amount = 0;
42
43        for (int i = 0; i < num.length; i++) {
44            for (int j = 0; j < num[i].length; j++) {
45                if (num[i][j] < min) {
46                    min = num[i][j];
47                }
48            }
49        }
50
51        System.out.println("Smallest value = " + min);
52
53        for (int i = 0; i < num.length; i++) {
54            for (int j = 0; j < num[0].length; j++) {
55                if (min == num[i][j]) {
56                    System.out.print("Location of smallest value = [" + i + "] [" + j + "]");
57                    min_amount++;
58                }
59            }
60            System.out.println();
61        }
62        System.out.println("Amount of smallest value = " + min_amount);
63
64        scanner.close();
65    }
66 }
```

Result :

```
(zharsuke@LAPTOP-FCSRQQ00)-[~/Documents/College/Basic Programming Practicum/Meet 11/coding]
$ javac ass2b.java && java ass2b.java min_amount = 0;
Insert amount of line : 3
Insert amount of column : 3
Insert number array [0] [0]: 99
Insert number array [0] [1]: 98
Insert number array [0] [2]: 97
Insert number array [1] [0]: 97
Insert number array [1] [1]: 98
Insert number array [1] [2]: 99
Insert number array [2] [0]: 98
Insert number array [2] [1]: 97
Insert number array [2] [2]: 99
Number Array =
[[99,98,97]
[97,98,99]
[98,97,99]]
Smallest value = 97
Location of smallest value = [0] [2]
Location of smallest value = [1] [0]
Location of smallest value = [2] [1]
Amount of smallest value = 3
(zharsuke@LAPTOP-FCSRQQ00)-[~/Documents/College/Basic Programming Practicum/Meet 11/coding]
$
```

C

Code :

```
● ● ●

1 import java.util.*;
2 public class ass2c {
3     public static void main(String[] args) {
4
5         Scanner scanner = new Scanner(System.in);
6         int line, column;
7
8         System.out.print("Insert amount of line : ");
9         line = scanner.nextInt();
10        System.out.print("Insert amount of column : ");
11        column = scanner.nextInt();
12        int [][] num = new int[line][column];
13
14        System.out.println();
15
16        for (int i = 0; i < num.length; i++) {
17            for (int j = 0; j < num[i].length; j++) {
18                System.out.print("Insert number array [" + i + "] [" + j + "] : ");
19                num[i][j] = scanner.nextInt();
20            }
21            System.out.println();
22        }
23
24        System.out.println("Number Array = {");
25
26        for (int i = 0; i < num.length; i++) {
27            System.out.print("[");
28            for (int j = 0; j < num[i].length; j++) {
29                if (j > 0 && j < num[i].length) {
30                    System.out.print(", ");
31                }
32                System.out.print(num[i][j]);
33            }
34            System.out.print("]\n");
35        }
36        System.out.println("}");
37
38        if (num[0][0] == 50) {
39            System.out.print(" (FOUND) ");
40        }else {
41            System.out.print(" (NOT FOUND) ");
42        }
43
44        scanner.close();
45    }
46 }
```

Result :

```
1  ass2.java 14      System.out.println();
2  $ javac ass2c.java && java ass2c.java 15      int i = 0; i < num.length; i++) {
3  Insert amount of line : 3 16          for (int j = 0; j < num[i].length; j++) {
4  Insert amount of column : 3 17              System.out.print("Insert number array");
5  J ass2b.java 18                  num[i][j] = scanner.nextInt();
6  Insert number array [0] [0]: 50 19          }
7  Insert number array [0] [1]: 99 20      System.out.println();
8  Insert number array [0] [2]: 98 21  }
9
10 Insert number array [1] [0]: 97 22      System.out.println("Number Array = {");
11 Insert number array [1] [1]: 96 23      for (int i = 0; i < num.length; i++) {
12 Insert number array [1] [2]: 95 24          System.out.print("[");
13 25              for (int j = 0; j < num[i].length; j++) {
14                  if (j > 0 && j < num[i].length) {
15                      System.out.print(", ");
16                  }
17                  System.out.print(num[i][j]);
18              }
19          System.out.print("]\n");
20      System.out.println("}");
21
22 Number Array = {
23 [50, 99, 98]
24 [97, 96, 95]
25 [94, 93, 92]
26 }
27 > OUTLINE
28 (FOUND)
29 > TIMELINE
30 > JAVA PROJECTS
```