

Create a directory named **lab19** in your **labs** directory. Write a program in a class named **Lab19** that does the following:

1. If-else Block

Ask the user to enter an integer. Read the integer from the keyboard and uses an if-else block to print **greater than 0** if the integer read is greater than zero, otherwise print **not greater than zero**.

2. ?: Operator

Ask the user to enter a string. Read the string from the keyboard and uses the ?: operator to set a Boolean variable named **repeat** to **true** if the String that was read is **"yes"**, otherwise set **repeat** to **false**. Print the value of the string to the screen.

3. Switch Statement

Ask the user to enter a string. Read the string from the keyboard and uses a switch statement to print **input: A** if the String read is **"A"**, prints **input: B** if the String read is **"B"**, and prints **input: other** otherwise.

4. While-loop

Use a while-loop to print to the screen the numbers between 5 to 20, inclusively, in decreasing order.

5. For-loop

Use a for-loop to print to the screen the numbers between 5 to 20, inclusively, in decreasing order.

6. Array Declaration

Create an array named **array1** that can hold 15 integers.

Ask the user to enter 15 integers and store them in **array1**.

Print the elements in the array to the screen on a single line with spaces between them.

7. 2D Array Declaration

Create a 3 x 3 2D array of integers named **matrix1**.

Ask the user to enter 9 integers and store them in **matrix1**.

Print the elements in **matrix1** to the screen with each row on a separate line and spaces between the elements.

8. 2D Array Element Retrieval

Print to the screen (on a single line with spaces between them) all of the even elements in **matrix1**.

9. 2D Array Element Modification

Set the elements on the diagonal of matrix2 to 7 and leave all other elements unchanged.

Print the elements in **matrix1** to the screen with each row on a separate line and spaces between the elements.