

For this exercise, follow the steps in document: **createNewJavaProject**

Use the following project, package and class names:

Project: **ConstrcutsProject**

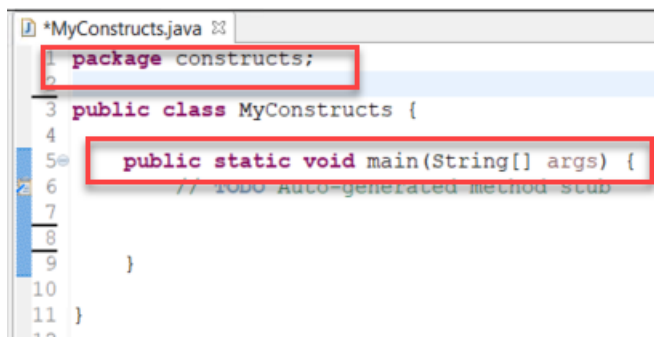
Package: **constructs**

Class: **MyConstructs**

You should have a copy of the source code.

The **MyConstructs.java** class file will open in the **Eclipse editor** window. Notice the **constructs** package name.

In the main method, enter the code below



```
package constructs;
```

```
import java.util.Scanner;    //import reusable library class Scanner
```

```
public class MyConstructs {
```

```
    public static void main(String[] args) {  
        // TODO Auto-generated method stub
```

```
        System.out.println("enter an integer"); //output instructions to  
the user
```

```
        Scanner keyboard = new Scanner(System.in); //instantiate Scanner  
class, create keyboard object
```

```
        int myint = keyboard.nextInt();           //call nextInt method on  
keyboard object and return it to myint
```

```
        if(myint==4) {                               //test  
the value of myint from keyboard
```

```
            System.out.println("Hey, this is the value input from the  
keyboard, myint is: " + myint); //if myint is 4, out to message to the console  
        }
```

```

        else{ //Else,
output a different message
        System.out.println("Hey, keyboard input is not 4. It is: "
+ myint); //Concatenate the output string and myint
    }
    if(myint < 16){
//test the value of myint from keyboard
        System.out.println("You can't drive");//if myint is less
than 16, out to message to the console
    }
    else if (myint == 16|| myint == 17){
//Test if myint is equal to 16 or 17 and output a message
        System.out.println("You can drive but not vote");
    }

    if (myint >= 18 && myint <= 24){
//Test if myint is great than 4 and output a message
        System.out.println("You can vote but not rent a car");
    }
    else if (myint >= 25){ //Test
if myint is great than 4 and output a message
        System.out.println("You can do pretty much anything");
    }

    System.out.println("for loop section:"); //Format output to the
console

    for (int i = 0; i < myint; i++){ //Loop from i equal to 0,
continue while i is less than keyboard input
        System.out.println(i);
    }
    System.out.println("Counting up to kykeyboard input"); //Format
output to the console
    int j=0; //declare
and initialize counter
    int k = 0; //declare
and initialize counter
    while (j < myint){ //run the code
block until j is equal to or greater than input

        System.out.println(j); //Output value
of j
        j++; //increase j by
1

    }
    System.out.println("Counting up to kykeyboard input with do-while
loop"); //Format output to the console
    do{ //run the code block if the while
expression is true
        System.out.println(k);
        k++; //increment k by 1
    }
    while (k < myint); //evaluate condition for true of
false

```

```

        System.out.println("Working wth break");           //Format output to
the console
        int z;                                           //declare and
initialize counter
        for (z = 0; z < 5; z++) {                       //for loop header
            if (z >= 2) {                                //Test if z is greater
than or equal to 2
                System.out.println("break");             //Output message to
user
                break;                                   //Exit the for loop
            }
            System.out.println("No break yet");           //output a message while
running for loop
        }
        System.out.println("z is: " + z);               //output a
message after looping ends using concatenation

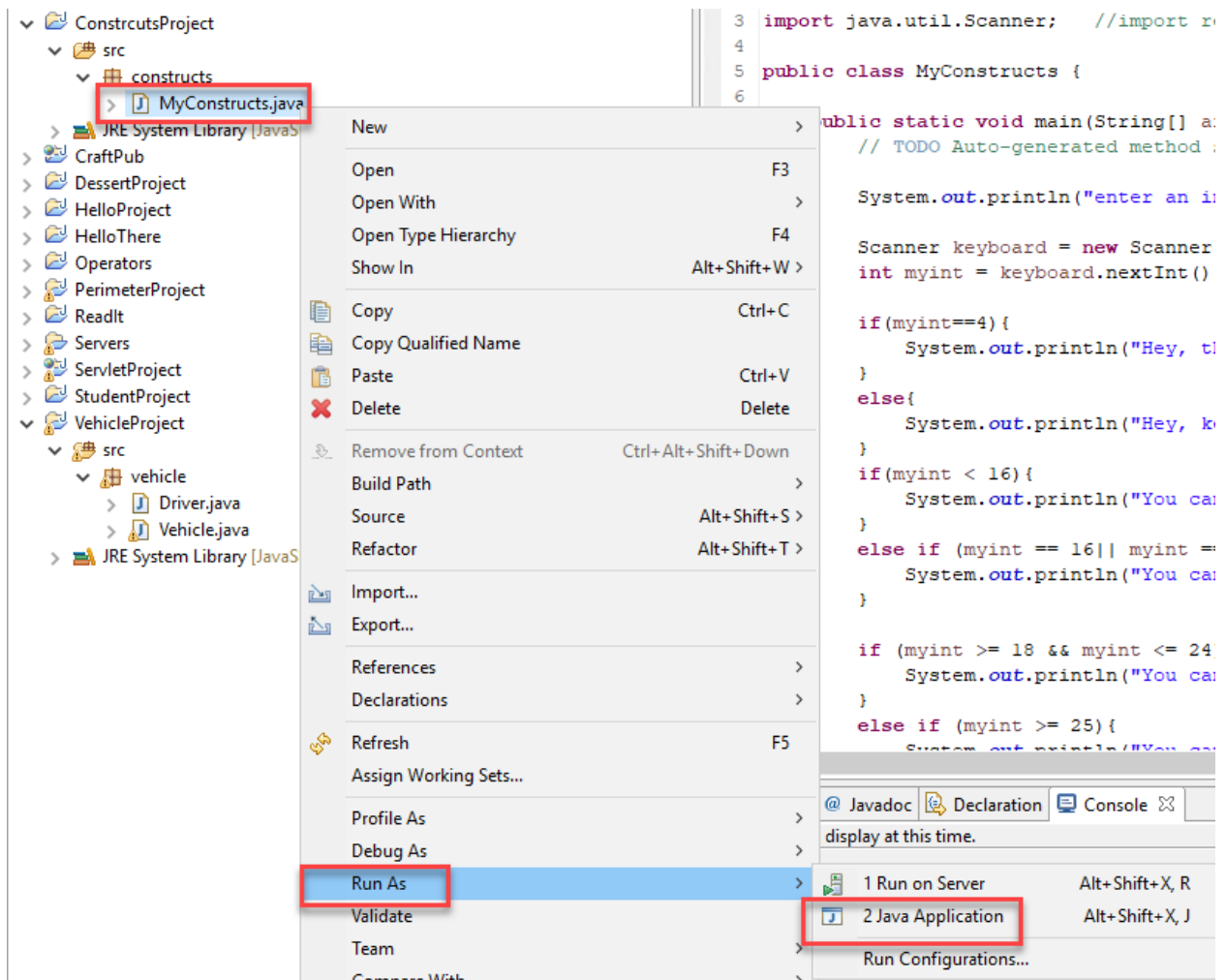
        System.out.println("Working wth continue");      //Format output to the
console
        for (int i = 0; i < myint; i++) {               //loop while counter i
is less than keyboeard input
            if (i == 4) {                                //Test is counter i
equals 4.
                continue;                               //Skip this iteration. No
4 will be output
            }
            System.out.println(i);                       //Output a message during
the loop.
        }

        keyboard.close(); //delete keyboard object from memory
    }
}

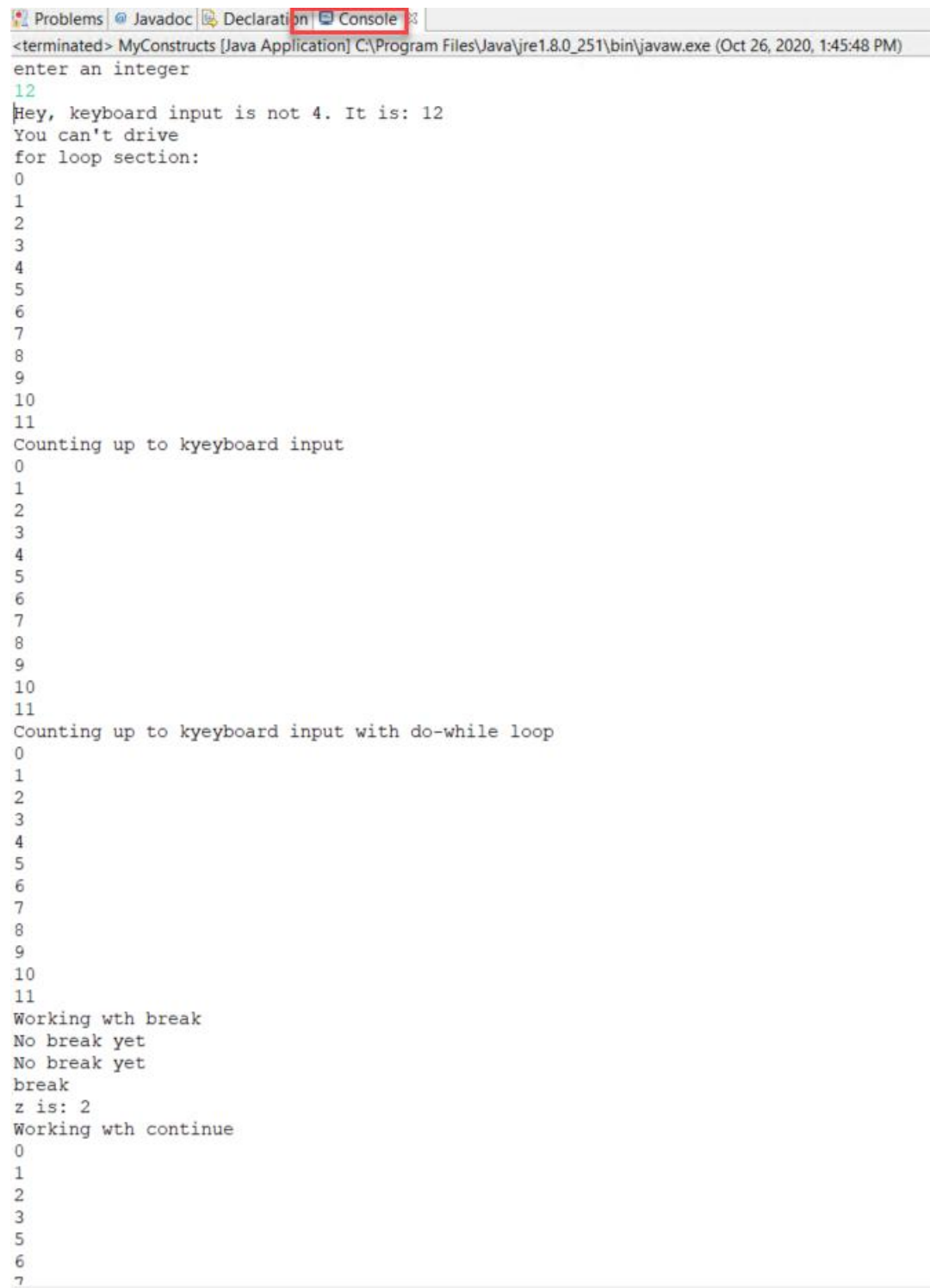
```

Run the application.

In the **ConstrcutsProject** project, select the **MyConstructs.java** class file, right click, click **Run As -> Java Application**.



The output will appear in the **Console** window.



The screenshot shows an IDE window with the 'Console' tab selected. The console displays the output of a Java application. The output includes prompts for user input, a correction of a previous statement, a loop section, and several counting exercises using different loop structures and control statements like break and continue.

```
<terminated> MyConstructs [Java Application] C:\Program Files\Java\jre1.8.0_251\bin\javaw.exe (Oct 26, 2020, 1:45:48 PM)
enter an integer
12
Hey, keyboard input is not 4. It is: 12
You can't drive
for loop section:
0
1
2
3
4
5
6
7
8
9
10
11
Counting up to kkeyboard input
0
1
2
3
4
5
6
7
8
9
10
11
Counting up to kkeyboard input with do-while loop
0
1
2
3
4
5
6
7
8
9
10
11
Working wth break
No break yet
No break yet
break
z is: 2
Working wth continue
0
1
2
3
5
6
7
```

