



GETS - GETTING EDUCATION WITH TECHNOLOGICAL SYSTEM

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WRITE A PROGRAMS Using LOOPS

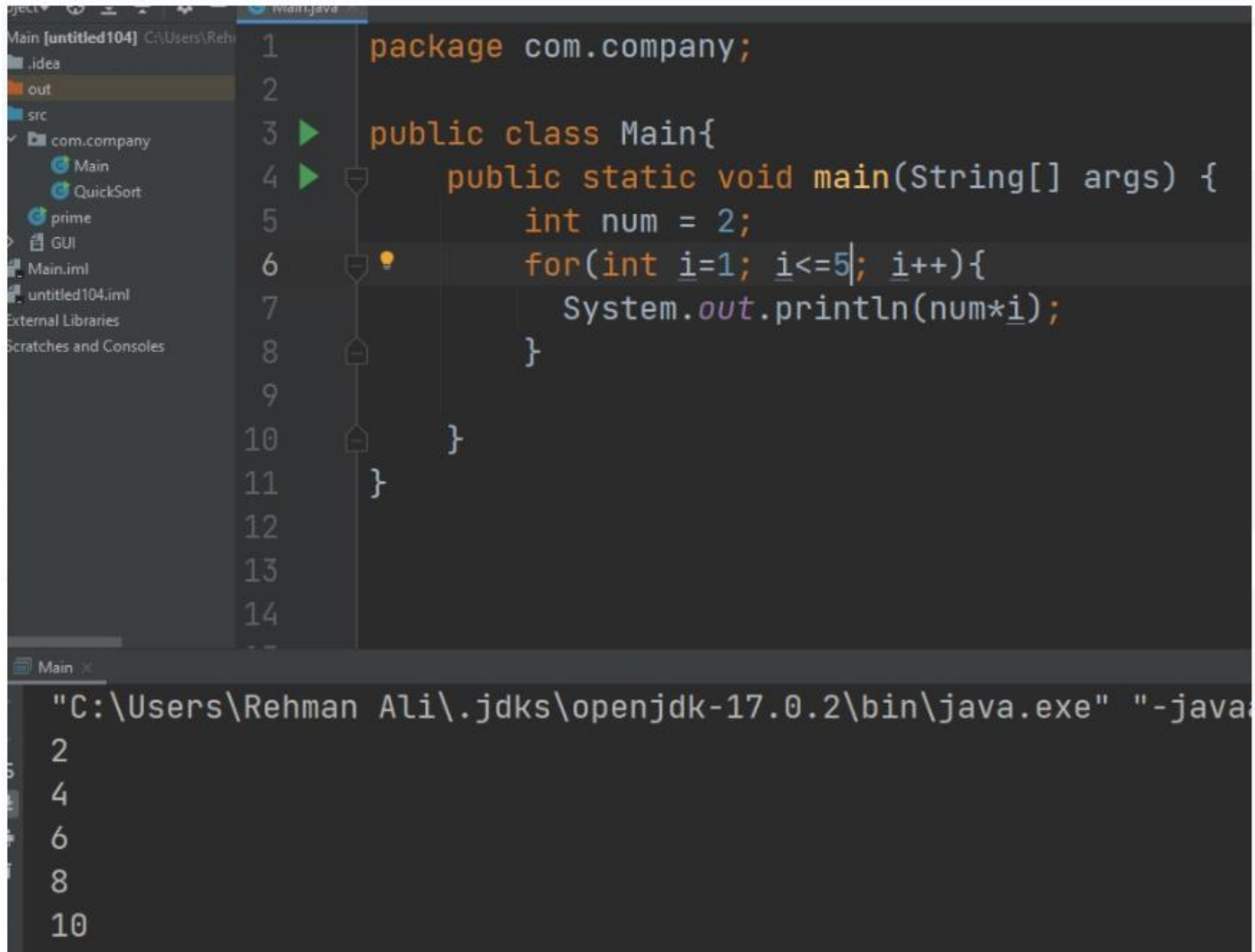
1. WAP: print EVEN numbers list like:

2
4
6
8
10

And also print like:

2,4,6,8,10

1. WAP: print Odd numbers



The screenshot shows an IDE with a project named 'Main [untitled104]'. The file explorer on the left shows a package 'com.company' containing 'Main' and 'QuickSort'. The main editor displays the following Java code in 'main.java':

```
1 package com.company;
2
3 public class Main{
4     public static void main(String[] args) {
5         int num = 2;
6         for(int i=1; i<=5; i++){
7             System.out.println(num*i);
8         }
9     }
10 }
11
12
13
14
```

The code has a syntax error highlighted on line 6: 'for(int i=1; i<=5; i++){'. The IDE's output window at the bottom shows the command executed: `"C:\Users\Rehman Ali\.jdk\openjdk-17.0.2\bin\java.exe" "-java`. Below the command, the output of the program is displayed:

```
2
4
6
8
10
```

2. WAP: print EVEN numbers list but use selection statement for result:

2
4
6
8
10

And also print like:

2,4,6,8,10

2. Write a program

3. WAP: print Odd numbers list like:

1

3

5

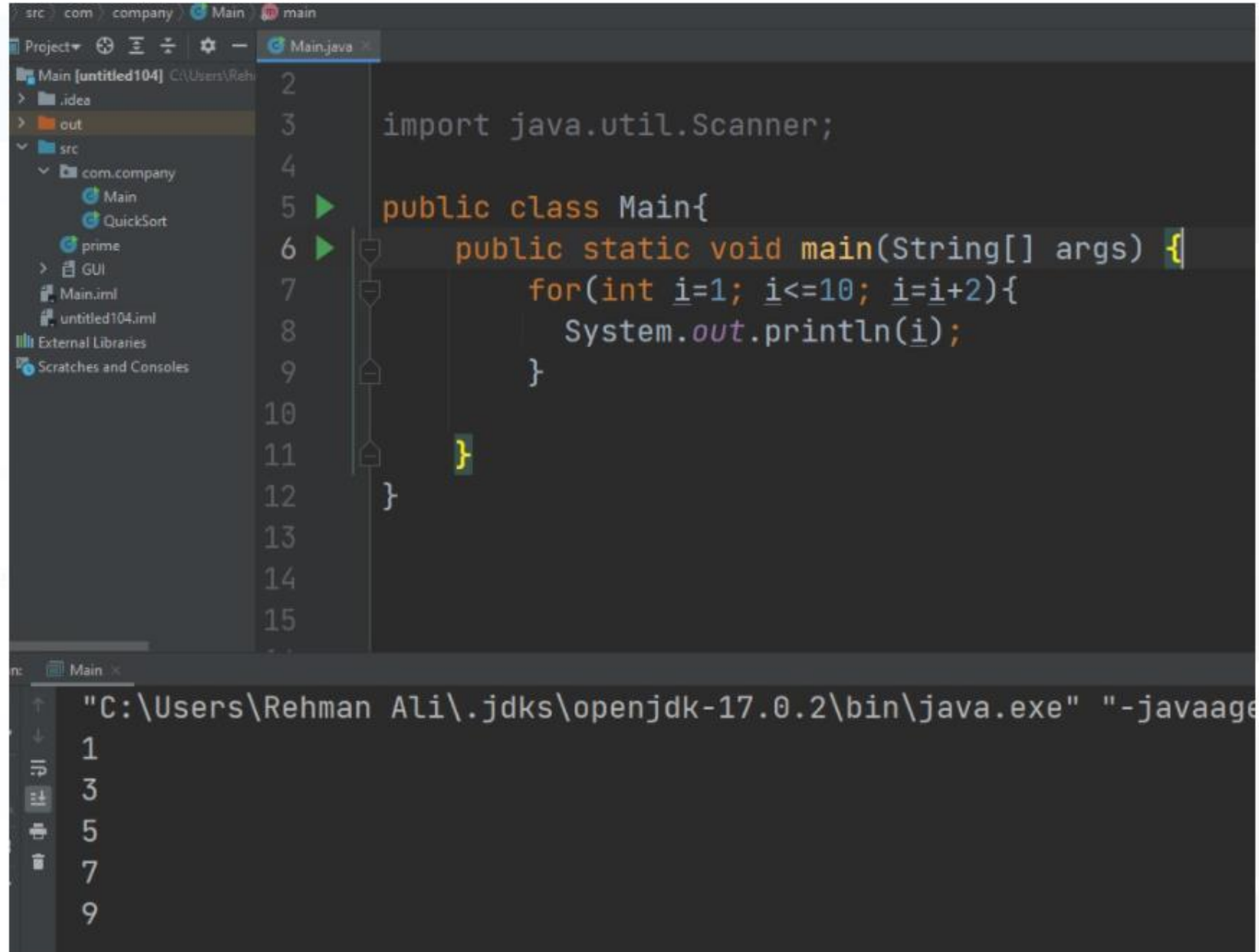
7

9

And also print like:

1, 3, 5, 7, 9

3. WAP: print EVEN numbers



```
src com company Main main
Project Main [untitled104] C:\Users\Rehman
> .idea
> out
src
  com.company
    Main
    QuickSort
    prime
    GUI
    Main.iml
    untitled104.iml
External Libraries
Scratches and Consoles

2
3 import java.util.Scanner;
4
5 public class Main{
6     public static void main(String[] args) {
7         for(int i=1; i<=10; i=i+2){
8             System.out.println(i);
9         }
10
11     }
12 }
13
14
15

n: Main
"C:\Users\Rehman Ali\.jdk\openjdk-17.0.2\bin\java.exe" "-javaage
1
3
5
7
9
```


4. WAP: print Odd numbers list but use selection statement for result:

1

3

5

7

9

And also print like:

1, 3, 5, 7, 9

4. Write a program

5. WAP: print multiple TABLE list like:

$$2 \times 1 = 2$$

$$2 \times 2 = 4$$

$$2 \times 3 = 6$$

$$2 \times 4 = 8$$

$$2 \times 5 = 10$$

$$2 \times 6 = 12$$

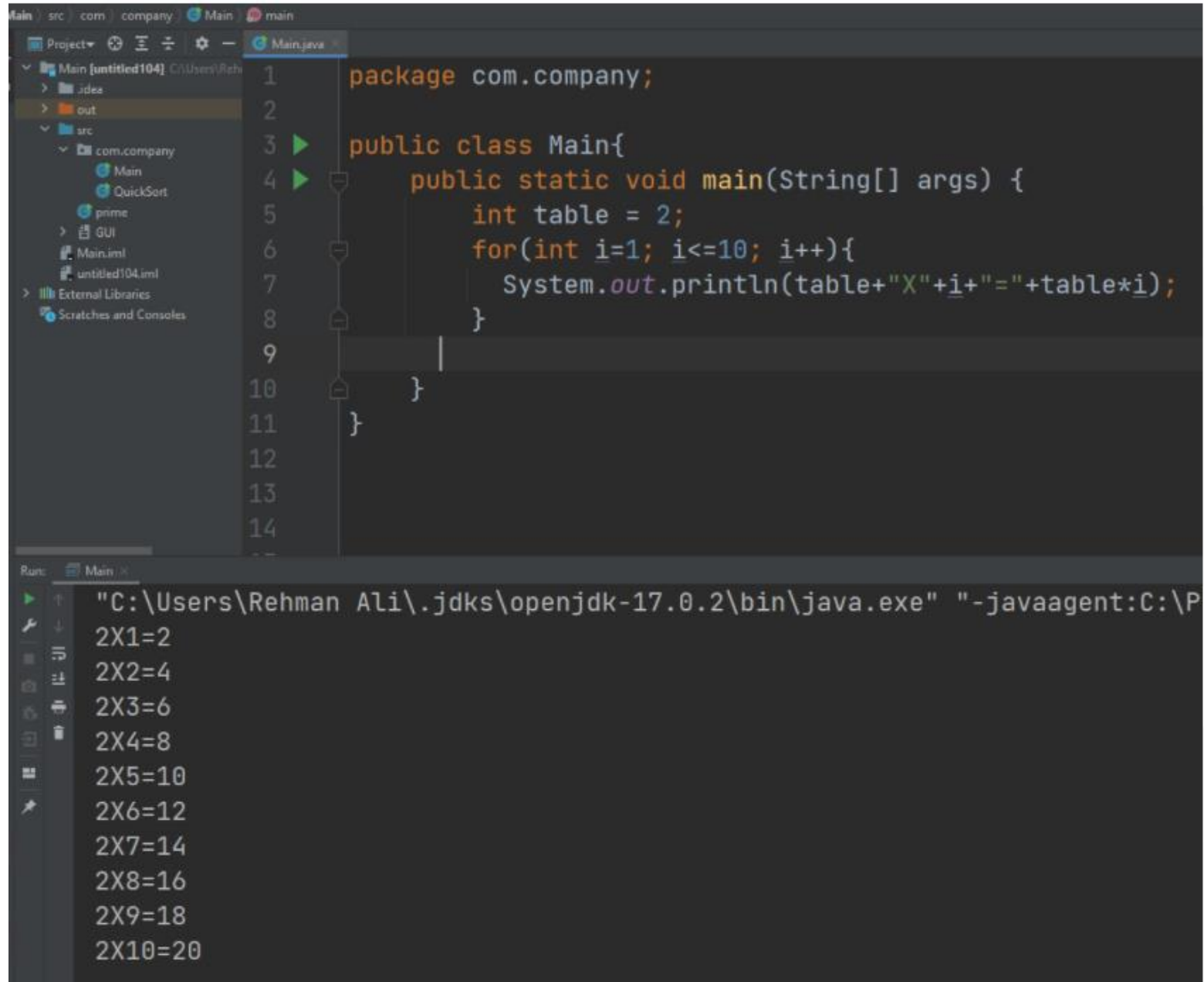
$$2 \times 7 = 14$$

$$2 \times 8 = 16$$

$$2 \times 9 = 18$$

$$2 \times 10 = 20$$

5. WAP: print multiple TABLE



The screenshot displays an IDE with a project named 'Main' containing a package 'com.company'. The 'Main.java' file contains the following code:

```
1 package com.company;
2
3 public class Main{
4     public static void main(String[] args) {
5         int table = 2;
6         for(int i=1; i<=10; i++){
7             System.out.println(table+"X"+i+"="+table*i);
8         }
9     }
10 }
11
12
13
14
```

The Run console shows the execution of the program, displaying the multiplication table for 2:

```
Run: Main x
"C:\Users\Rehman Ali\.jdk\openjdk-17.0.2\bin\java.exe" "-javaagent:C:\P
2X1=2
2X2=4
2X3=6
2X4=8
2X5=10
2X6=12
2X7=14
2X8=16
2X9=18
2X10=20
```

6. WAP: print any multiple TABLE but also set limit means will end at 5 like:

$$2 \times 1 = 2$$

$$2 \times 2 = 4$$

$$2 \times 3 = 6$$

$$2 \times 4 = 8$$

$$2 \times 5 = 10$$

The image shows a screenshot of an IDE with a Java file named `Main.java`. The code defines a `Main` class with a `main` method. It uses a `Scanner` to take input for a table and a limit, then prints a multiplication table for that table up to the specified limit. The output window shows the program running with inputs 2 and 5, resulting in a 2x5 multiplication table.

```
4  
5 public class Main{  
6     public static void main(String[] args) {  
7         Scanner input = new Scanner(System.in);  
8         System.out.print("Enter table you want: ");  
9         int table = input.nextInt();  
10  
11         System.out.print("Enter table limit: ");  
12         int tlimit = input.nextInt();  
13  
14         for(int i=1; i<=tlimit; i++){  
15             System.out.println(table+"X"+i+"="+table*i);  
16         }  
17     }  
}
```

Execution Output:

```
"C:\Users\Rehman Ali\.jdk\openjdk-17.0.2\bin\java.exe" "-javaagent:C:\Program F  
Enter table you want: 2  
Enter table limit: 5  
2X1=2  
2X2=4  
2X3=6  
2X4=8  
2X5=10
```

7. WAP: print 2 and 3 multiple TABLE like:

2x1=2	3x1=3
2x2=4	3x2=6
2x3=6	3x3=9
2x4=8	3x4=12
2x5=10	3x5=15
2x6=12	3x6=18
2x7=14	3x7=21
2x8=16	3x8=24
2x9=18	3x9=27
2x10=20	3x10=30

```
object> Main.java
Main [untitled104] C:\Users\Rehman\Idea\src
src
com.company
Main
QuickSort
prime
GUI
Main.iml
untitled104.iml
External Libraries
Scratches and Consoles

7 Scanner input = new Scanner(System.in);
8 System.out.print("Enter table you want: ");
9 int table1 = input.nextInt();
10
11 System.out.print("Enter table you want: ");
12 int table2 = input.nextInt();
13
14 for(int i=1; i<=10; i++){
15     System.out.println(table1+"x"+i+"="+table1*i+"
16     "+table2+"x"+i+"="+table2*i);
17 }
18
```

```
Main x
"C:\Users\Rehman Ali\.jdk\openjdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition\lib\idea_rt.jar=12139:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition\bin" -Dfile.encoding=UTF-8
Enter table you want: 2
Enter table you want: 3
2x1=2      3x1=3
2x2=4      3x2=6
2x3=6      3x3=9
2x4=8      3x4=12
2x5=10     3x5=15
2x6=12     3x6=18
2x7=14     3x7=21
2x8=16     3x8=24
2x9=18     3x9=27
2x10=20    3x10=30
```


8. WAP: that will print 6 times same as below

```

C:\Users\Rehman Ali\.jdk\openjdk-17.0.2\bin\java.exe
G0o Fassst!  o  ----
               !//|  -----
               //-o  -----
=====
G0o Fassst!  o  ----
               !//|  -----
               //-o  -----
=====
G0o Fassst!  o  ----
               !//|  -----
               //-o  -----
=====
G0o Fassst!  o  ----
               !//|  -----
               //-o  -----
=====
G0o Fassst!  o  ----
               !//|  -----
               //-o  -----
=====
G0o Fassst!  o  ----
               !//|  -----
               //-o  -----
=====

```

9. WAP: that will print Item Quantity 3

1st item price is: 10

2nd item price is: 20

3rd item price is: 30

In last print

Total Amount of items are: 50

10. WAP: that will print if loop is 5 or 3

1

1

12

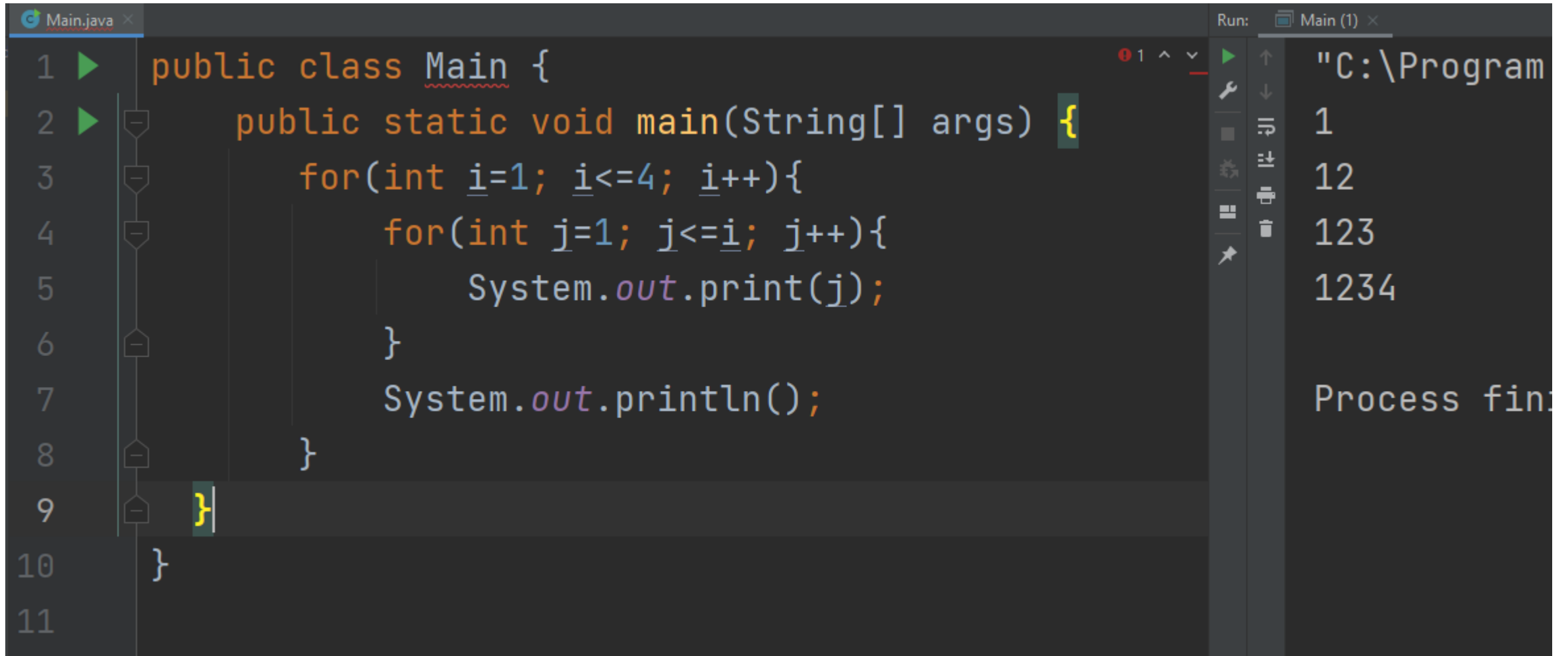
12

123

123

1234

12345



The image shows a screenshot of an IDE with a dark theme. On the left, a file explorer shows 'Main.java'. The main editor displays the following Java code:

```
1 public class Main {  
2     public static void main(String[] args) {  
3         for(int i=1; i<=4; i++){  
4             for(int j=1; j<=i; j++){  
5                 System.out.print(j);  
6             }  
7             System.out.println();  
8         }  
9     }  
10 }  
11
```

On the right, a 'Run' console window titled 'Main (1)' shows the output of the program:

```
"C:\Program  
1  
12  
123  
1234  
  
Process fin
```

11. WAP: that will print words like:

Students

Students Students

Students Students Students

The screenshot shows an IDE with a project explorer on the left and a code editor on the right. The project explorer shows a project named 'untitled104' with a source folder 'src' containing a package 'com.company' with classes 'Main' and 'QuickSort'. The code editor displays the following Java code:

```
5 public class Main{
6     public static void main(String[] args) {
7         String name = "Students";
8         int namelimit = 3;
9         for (int i=1; i<=namelimit; i++){
10             for(int j=1; j<=i; j++){
11                 System.out.print(name+" ");
12             }
13             System.out.println();
14         }
15     }
```

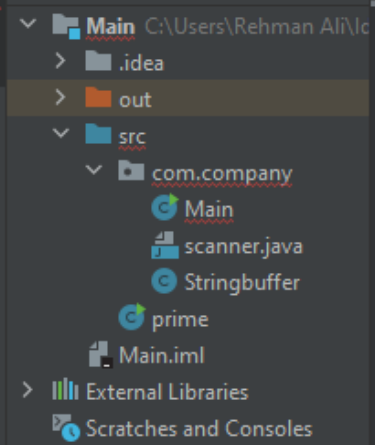
Below the code editor, the output window shows the execution result:

```
"C:\Users\Rehman Ali\.jdk\openjdk-17.0.2\bin\java.exe" "-javaa
Students
Students Students
Students Students Students
```

12. WAP: that will print stars like:

*

**



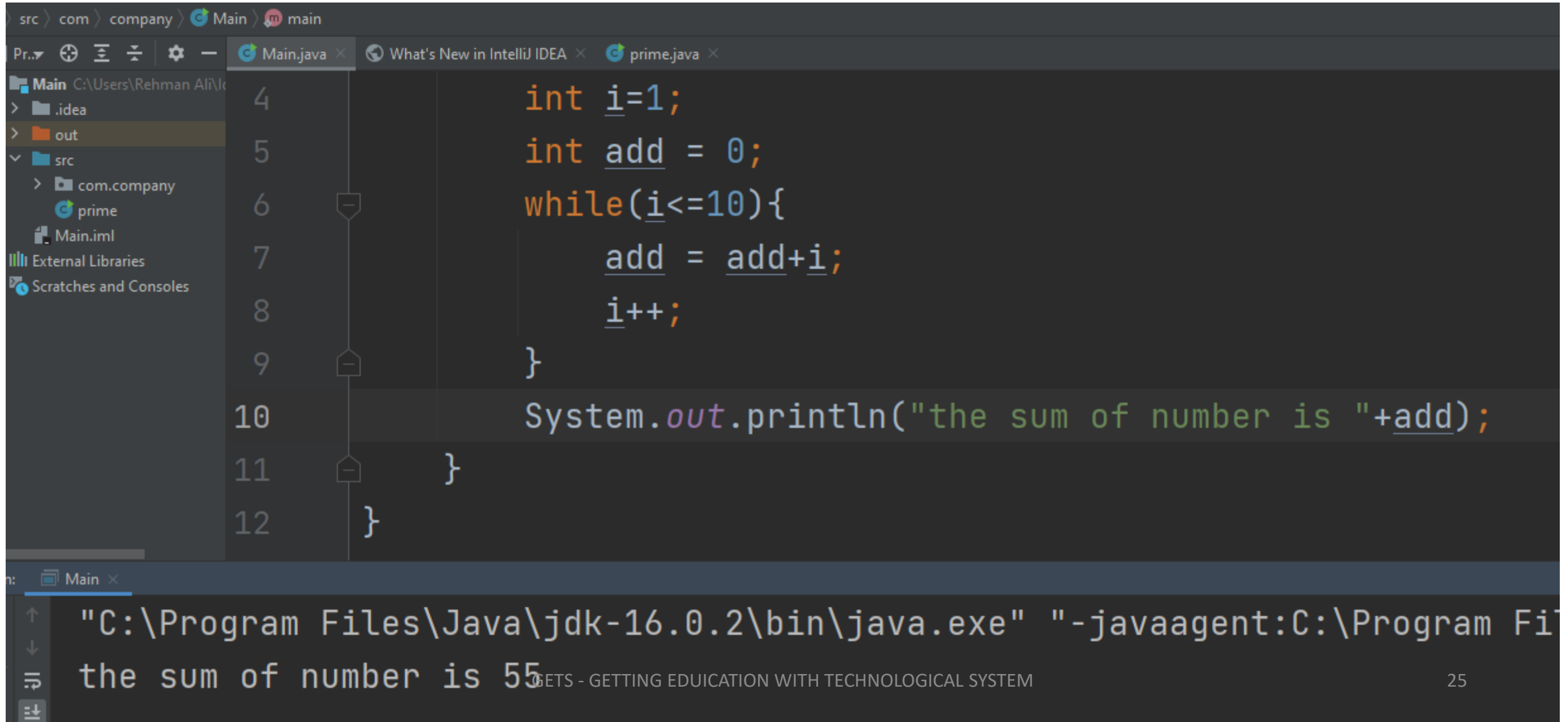
```
1 public class Main {  
2     public static void main(String[] args) {  
3         for(int i=1; i<=4; i++){  
4             for(int j=1; j<=i; j++){  
5                 System.out.print("* ");  
6             }  
7             System.out.println();  
8         }  
9     }  
10 }
```

Run: Main (1) x

```
"C:\Program Files\Java\jdk-16.0.2\bin\java.exe" "-javaagent:  
*  
* *  
* * *  
* * * *
```

Process finished with exit code 0

13. JAVA WHILE LOOP



The screenshot displays the IntelliJ IDEA IDE with a Java project named 'Main'. The source code in 'Main.java' uses a while loop to calculate the sum of numbers from 1 to 10. The code is as follows:

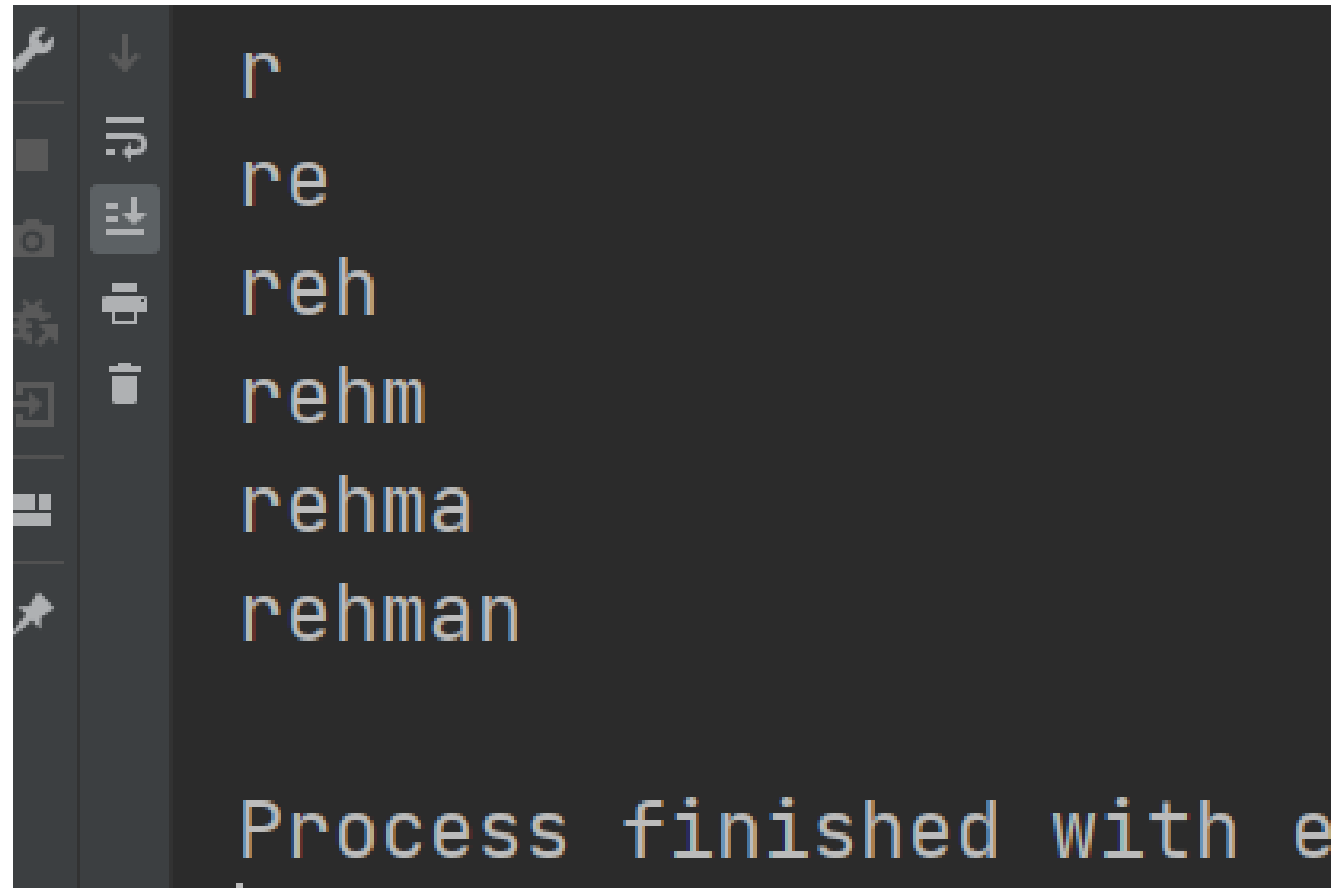
```
4      int i=1;
5      int add = 0;
6      while(i<=10){
7          add = add+i;
8          i++;
9      }
10     System.out.println("the sum of number is "+add);
11 }
12 }
```

The IDE's interface includes a project explorer on the left showing the file structure, a central editor for the code, and a bottom console window. The console shows the command to run the program and the resulting output.

```
Run: C:\Program Files\Java\jdk-16.0.2\bin\java.exe" "-javaagent:C:\Program Fi
the sum of number is 55
```

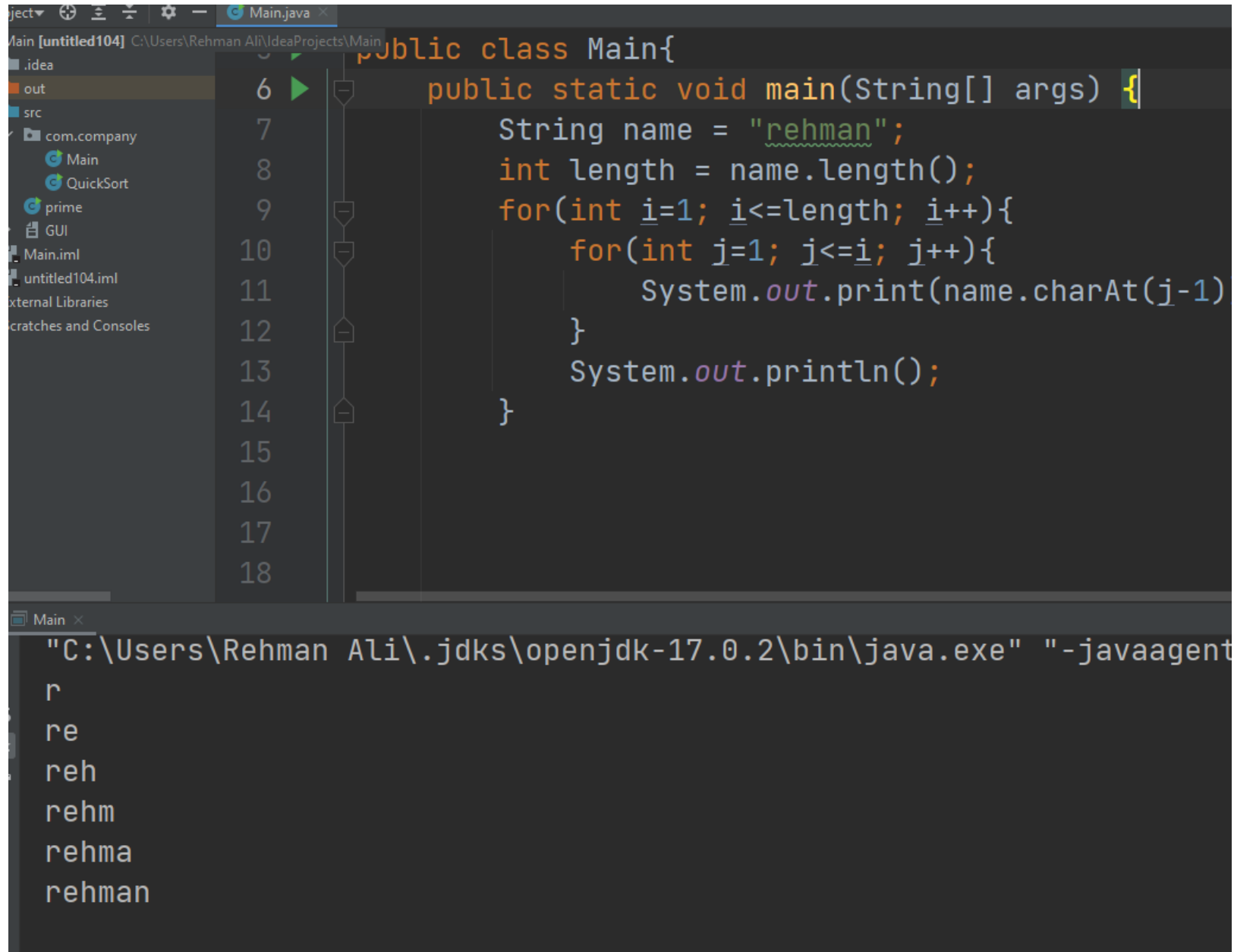
At the bottom of the image, there is a footer with the text 'GETS - GETTING EDUCATION WITH TECHNOLOGICAL SYSTEM' and the page number '25'.

14. JAVA name pattern program

A screenshot of a Java IDE with a dark theme. The left sidebar contains icons for a wrench, a downward arrow, a refresh icon, a list with arrows, a printer, a trash, a folder, a stack, and a star. The main editor area displays the output of a Java program. The output consists of six lines of text: 'r', 're', 'reh', 'rehm', 'rehma', and 'rehman'. Each line has a cursor at the end. Below these lines, the text 'Process finished with e' is visible, indicating the program has completed execution.

```
r  
re  
reh  
rehm  
rehma  
rehman  
  
Process finished with e
```

14. JAVA name pattern program



```
public class Main{
    public static void main(String[] args) {
        String name = "rehman";
        int length = name.length();
        for(int i=1; i<=length; i++){
            for(int j=1; j<=i; j++){
                System.out.print(name.charAt(j-1));
            }
            System.out.println();
        }
    }
}
```

"C:\Users\Rehman Ali\.jdk\openjdk-17.0.2\bin\java.exe" "-javaagent
r
re
reh
rehm
rehma
rehman

15. JAVA character pattern program using single loop

15. Stickman claiming stairs programs

[illegible]

```

1 package com.company;
2 public class Main{
3     public static void main(String[] args) {
4         int steps = 5;
5         for (int x = 0; x < steps; x++) {
6             System.out.format(((steps == (x + 1)) ? "" : ("% "
7                 + ((steps - x - 1) * 5) + "s"))
8                 + " 0 *****"
9                 + ((x == 0) ? "" : ("% " + (x * 5) + "s"))
10                + "*\n", " ", " ");
11            System.out.format(((steps == (x + 1)) ? "" : ("% "
12                + ((steps - x - 1) * 5) + "s"))
13                + " /|\ * "
14                + ((x == 0) ? "" : ("% " + (x * 5) + "s"))
15                + "*\n", " ", " ");
16            System.out.format(((steps == (x + 1)) ? "" : ("% "
17                + ((steps - x - 1) * 5) + "s"))
18                + " / \ * "
19                + ((x == 0) ? "" : ("% " + (x * 5) + "s"))
20                + "*\n", " ", " ");
21        }
22        for (int i = 0; i < (steps + 1) * 5 + 2; i++) {
23            System.out.print("*");
24        }
25
26

```

16. WAP: create a calculator using loop display again others option like Y=yes or N=exit

The image shows an IDE with a Java project structure on the left and a code editor in the center. The project structure includes a package `com.company` with files `I1`, `Main`, and `Vehicle.java`. The code editor displays the following Java code:

```
1 package com.company;
2
3 public class Main {
4     public static void main(String[] args) {
5         String yesno;
6         do{
7             //calculator program for lopping condition y=yes n=no
8             System.out.println("Welcome GETS Calculator");
9             System.out.println("Enter Num1 Value: ");
10            int num1 = 10;
11            System.out.println("Enter Num2 Value: ");
12            int num2 = 20;
13            System.out.println("Choose Option: +, -, /, * ");
14            String option = "+";
15            int result;
16            switch (option){
17                case "+":
18                    result = num1+num2;
19                    System.out.println("Additon is: "+result);
20                    break;
21                default:
22                    System.out.println("Invalid value");
23            }
24            System.out.println("if want to continue press Y=Yes or N=No");
25            yesno = "N";
26            }while(yesno.equals("Y")||yesno.equals("y"));
27        }
28    }
29 }
30
31
32
33
```

The console at the bottom shows the execution of the program:

```
h: Main ×
↑ "C:\Users\Rehman Ali\.jdk\openjdk-17.0.2\bin\java.exe" "-javaagent:C:
↓ Welcome GETS Calculator
⇨ Enter Num1 Value:
>> Enter Num2 Value:
```