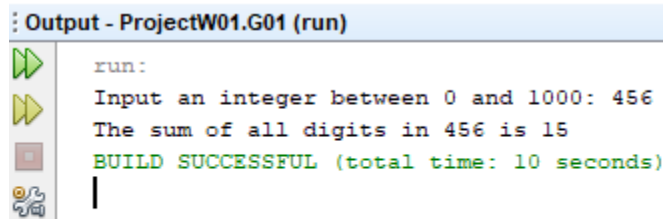


HW3

Computer Programming Fall 2021

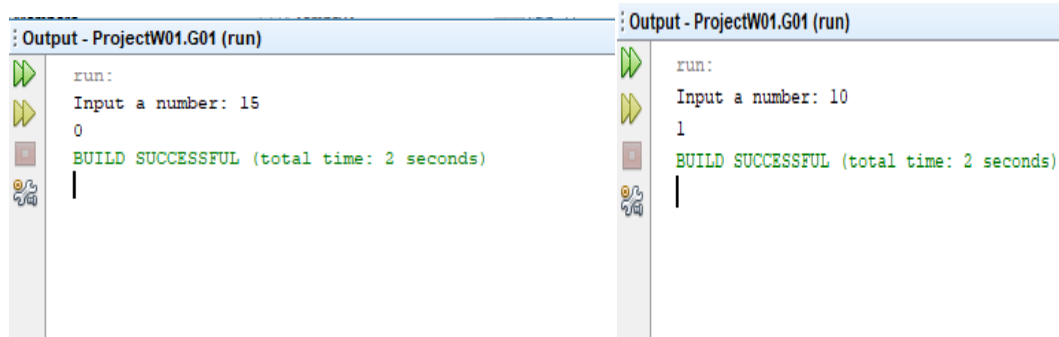
Dr. Hatim Alsuwat

Q1: Write a Java program that reads an integer between 0 and 1000 and adds all the digits in the integer.



```
Output - ProjectW01.G01 (run)
run:
Input an integer between 0 and 1000: 456
The sum of all digits in 456 is 15
BUILD SUCCESSFUL (total time: 10 seconds)
```

Q2: Write a Java program to accept a number and check the number is even or not. Prints 1 if the number is even or 0 if the number is odd.



```
Output - ProjectW01.G01 (run)
run:
Input a number: 15
0
BUILD SUCCESSFUL (total time: 2 seconds)

Output - ProjectW01.G01 (run)
run:
Input a number: 10
1
BUILD SUCCESSFUL (total time: 2 seconds)
```

Q3: Write a Java program to get a number from the user and print whether it is positive or negative

```
Output - ProjectW01.G01 (run)

run:
Input number: 20
Number is positive
BUILD SUCCESSFUL (total time: 2 seconds)
|

Output - ProjectW01.G01 (run)

run:
Input number: -20
Number is negative
BUILD SUCCESSFUL (total time: 3 seconds)
|
```

Q4: Take three numbers from the user and print the greatest number

```
Output - ProjectW01.G01 (run)

run:
Input the 1st number: 200
Input the 2nd number: 5
Input the 3rd number: 235
The greatest: 235
BUILD SUCCESSFUL (total time: 19 seconds)
|
```

Q5: Write a Java program that keeps a number from the user and generates an integer between 1 and 7 and displays the name of the weekday.

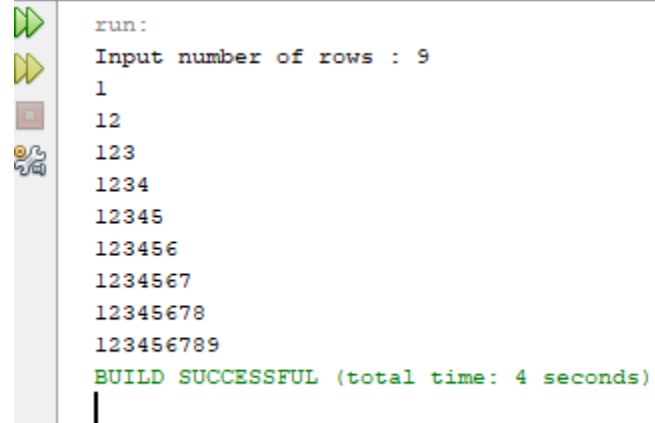
```
Output - ProjectW01.G01 (run)
run:
Input number: 1
Sunday
BUILD SUCCESSFUL (total time: 8 seconds)

Output - ProjectW01.G01 (run)
run:
Input number: 7
Saturday
BUILD SUCCESSFUL (total time: 4 seconds)

Output - ProjectW01.G01 (run)
run:
Input number: 15
Invalid day range
BUILD SUCCESSFUL (total time: 3 seconds)
```

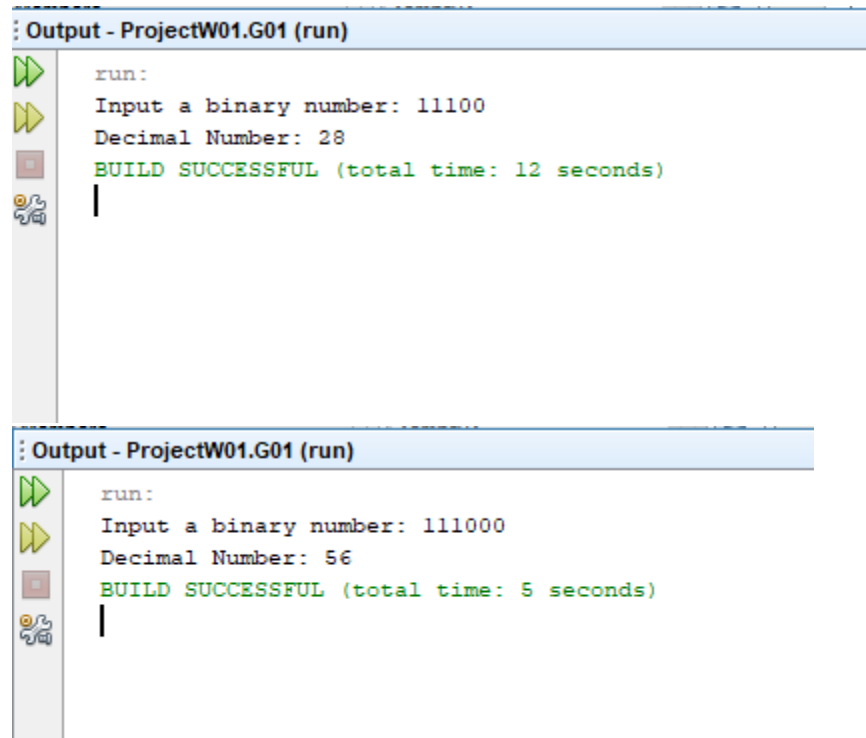
Q6: Write a program in Java to display the pattern like right angle triangle with a number.

Output - ProjectW01.G01 (run)

The image shows a screenshot of an IDE's output window. On the left side, there is a vertical toolbar with icons for running (a green play button), stepping through (a yellow play button), stopping (a red square), and debugging (a magnifying glass over a bug). The output text is as follows:

```
run:
Input number of rows : 9
1
12
123
1234
12345
123456
1234567
12345678
123456789
BUILD SUCCESSFUL (total time: 4 seconds)
|
```

Q7: Write a Java program to convert a binary number to decimal number.

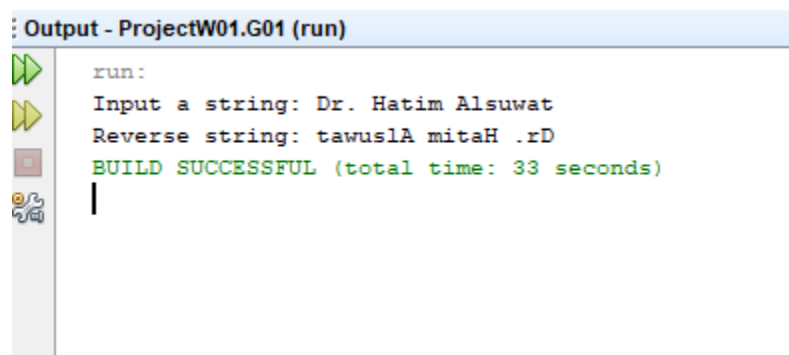


The screenshot shows two instances of an IDE's output window. The top instance shows the program running with the input '11100' and output '28'. The bottom instance shows the program running with the input '111000' and output '56'. Both instances show a successful build and execution.

```
Output - ProjectW01.G01 (run)
run:
Input a binary number: 11100
Decimal Number: 28
BUILD SUCCESSFUL (total time: 12 seconds)

Output - ProjectW01.G01 (run)
run:
Input a binary number: 111000
Decimal Number: 56
BUILD SUCCESSFUL (total time: 5 seconds)
```

Q8: Write a Java program to reverse a string.



The screenshot shows an IDE's output window with the program running. The input is 'Dr. Hatim Alsuwat' and the output is 'tawuslA mitaH .rD'. The build is successful and took 33 seconds.

```
Output - ProjectW01.G01 (run)
run:
Input a string: Dr. Hatim Alsuwat
Reverse string: tawuslA mitaH .rD
BUILD SUCCESSFUL (total time: 33 seconds)
```

Q9: Write a Java program to calculate power of a number using for loop

```
Output - ProjectW01.G01 (run)

run:
Input the number: 4
Input the power: 2
4^2 = 16
BUILD SUCCESSFUL (total time: 7 seconds)
|
```

Q10: Write a Java program to display first n prime numbers

```
Output - ProjectW01.G01 (run)

run:
Enter the value of n:
12
First 12 prime numbers are:
2
3
5
7
11
13
17
19
23
29
31
37
BUILD SUCCESSFUL (total time: 5 seconds)
|
```