# Lab 02

This lab has you practicing collecting input from the user at run-time, using math/arithmetic operations, and using conditional statements. If you know how to solve a task using material that hasn't been covered yet such as arrays, you're welcome to practice with that approach – otherwise, everything is solvable with what you've seen in lecture so far.

In a new IntelliJ (or other IDE) project titled Lab02, please complete the following tasks. Use separate classes for each task. If the class name isn't specified, you can name it something reasonable for the task, such as `NameAndNumbers` for Task A.

Once finished, compress your project folder into a zip file and submit to Canvas.

## Task A: Name and Numbers

Write a program that asks and stores a user's name and two integers and using these variables, prints out the following:

```
Enter name: Nazim
Enter x: 3
Enter y: 7
User's name is Nazim
User entered x = 3 and y = 7
3 + 7 = 10
3 - 7 = -4
3 * 7 = 21
3 / 7 = 0
```

## Task B: Restaurant Bill

A restaurant serves eggs, pancakes, and coffee. The price of each item is given below:

| Item | Price |
| --- | --- |
| Egg | $5 |
| Pancake | $10 |
| Coffee | $8 |

Write a program called `MakeBill` that asks a waiter for the number of eggs, pancakes, and coffees. The program then generates the bill for the customer. A sample run of the program is given below. Try to align the output as shown. You can use the tab character `\t` to add tabs to a string, which can help align the columns.

```
Enter the number of eggs ordered:
4
Enter the number of pancakes ordered:
8
Enter the coffees ordered:
3
Bill
```

```
Item            Quantity        Cost
Eggs            4               20
Pancakes        8               80
Coffee          3               24
----------------------------------------------------
Total                           124
```

## Task C: Months

Write a program that will ask the user for a month as input in numeric format and print out the name of the month. Here is a sample run:

```
Enter the Month: 9
It is September!
```

^

## Task D: Rock, Paper, Scissors

There is a game called rock-paper-scissors. Each player chooses to play Rock (R), Paper (P), or Scissors (S). The rules are that: Rock beats Scissors, Scissors beats Paper, but Paper beats Rock. Write a program that will ask the user the name of the first player and the choice he/she makes and the name of the second player and the choice he/ she makes. Your program should output the name of the winner. In case, both the players enter the same choice your program should output "A tie".

Here are a few sample runs:

```
Enter the name of the player: Sarmad
Enter the choice: R
Enter the name of the player: Asher
Enter the choice: S
Sarmad
```

Another sample run:

```
Enter the name of the player: Bilal
Enter the choice: P
Enter the name of the player: Shahid
Enter the choice: S
Shahid
```

Yet another sample run:

```
Enter the name of the player: Zara
Enter the choice: R
Enter the name of the player: Saira
Enter the choice: R
A tie
```

**Task E: Seasons** Write a program that asks the user for the month and the date and prints out the season. The official seasons are given in the following table.

| Winter | December 22 to March 21 |
|--------|--------------------------|
| Spring | March 22 to June 20 |
| Summer | June 21 to September 22 |
| Fall | September 23 to December 21 |

Here is a sample run:

```
Enter the Month: 12
Enter the date: 28
It is winter!
```