

## 03603111: Programming Fundamentals I



### Nested Loops

Lab  
6

#### Objective:

- Understand and use if-else and nested if
- Understand and use different repetition structures (while and for)
- Understand and use nested for

**Exercise 1:** Write a program to get an input number from a user. The program then shows the multiply table (1 to 12) of the given number. The program should keep asking a user to enter a number and exit/stop when the input is -1.

```
Pleas enter a number (-1 to exit): 1
```

```
1*1  = 1
1*2  = 2
1*3  = 3
1*4  = 4
1*5  = 5
1*6  = 6
1*7  = 7
1*8  = 8
1*9  = 9
1*10 = 10
1*11 = 11
1*12 = 12
```

```
Pleas enter a number (-1 to exit): -1
```

```
Good Bye! I
will miss you.
```

**Exercise 2:** Write a program that prints a right triangle on the screen. The height and base of the triangle are of equal size, and the size is specified by the user.

```
Enter the size of triangle: 5
```

```
*  
**  
***  
****  
*****
```

**Exercise 3:** Write a program that prints a right triangle on the screen. The height and base of the triangle are of equal size, and the size is specified by the user.

```
Enter the size of triangle: 5
```

```
*****  
****  
***  
**  
*
```

**Exercise 4.** Write a program to count the number of prime numbers between two inputs. The program output should look like following. (use while loop)

```
Enter two integers: 1 5
```

```
There are 2 prime number between 1 and 5.  
2 and 3 are prime numbers.
```

```
Enter two integers: 2 3
```

```
3 is the only one prime number between 2 and 3.
```

**Exercise 5.** Write a program that requests one integer number from user, and prints the following square pattern (*nested for loop*)

```
Enter an integer number: 20
```

```
Enter an integer number:20
```

>>>