Developing Program Logic

sandeep@beingzero.in

Data Types

Exercises

- Write code to Read three integers. Calculate their average and display the average as output.
- Write code to Read two numbers. Swap their values and print their values after swap.
- Write code to Read personal details of an individual – Name, Gender, Mobile Number, Monthly Salary. Output following details – Name, Gender, Annual Salary, Mobile Number.

Decision Control

Exercises - I

- Write code to Read and number and Output “Even” or “Odd” based on the number.
- Write code to Read age and gender as input and display if person is senior citizen or not by showing on output “Senior Citizen” or “Not Senior Citizen”. Senior citizenship of men is 60 years, for a women it is 58 years.

Exercises - II

- Write code to read three numbers and display largest and second largest number.
- Write code to read marks of a student. Output Average and total of his marks. Also display his division – “Distinction” , “First”, “Second”, “Third”, “Pass” or “Fail”. Distinction is for 75 or above. First Class is for 60 or above. Second class is for 50 or above. Third is for 40 or above. Pass is for 35 or above. Below 35 student is a Failure.

While Loop…

Exercise - I

- Write code to read a number N. Write code to find sum of all even numbers from 1 to N. Output sum.
- Write code to take an integer N. Reverse the number and store reverse value in a different variable. Output Reverse.
- Write code to display a given number N in words. Example: N=2537. Output: Two Five Three Seven.

Exercise - II

- Write code to take an integer N. Calculate its factorial in another variable and output Factorial value.
- Write code that takes two integers as input M and N. Code should print all the prime numbers between M and N. Also find sum of all the prime numbers of and display Sum as output.
- Write code that takes an integer N as input and generate following output series.
  - 1, 4, 6, 8, 10, … N
  - 1, -2, 3, -5, 6, -7, … N
  - 1, 4, 27, 256, 3125, … N
  - 1, 4, 9, 25, 36, 49, 81, … N
  - 4, 16, 36, 64, … N

For Loop…

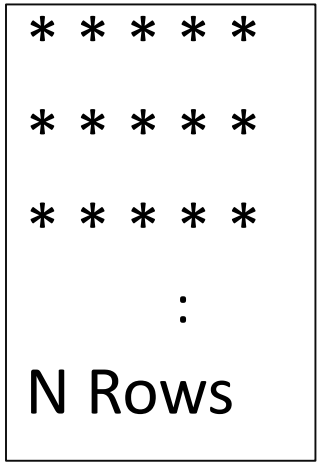
Exercise - I

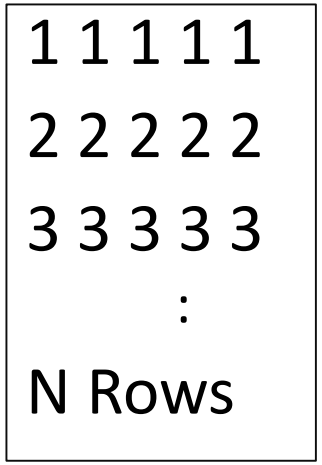
- Write code that takes an integer N and generates following series output:
  - 1, 1, 2, 3, 5, 8, 13, … N
  - 1, -2, 4, -6, 7, -10, 10, -14, … N
- Write code that takes two integers X and N. Code should calculate X^N and output the result.
- Write code that takes a string as input. It should reverse the string and output the string value.
- Write code that takes a string as input and displays “Palindrome” if it is a palindrome, otherwise it should display “Not Palindrome”

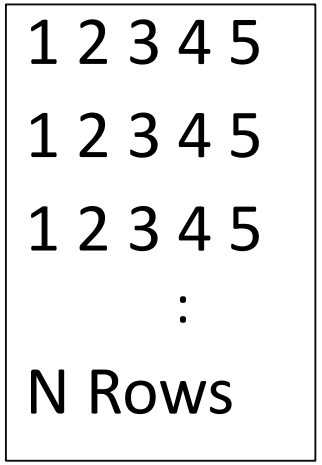
Nested Loops…

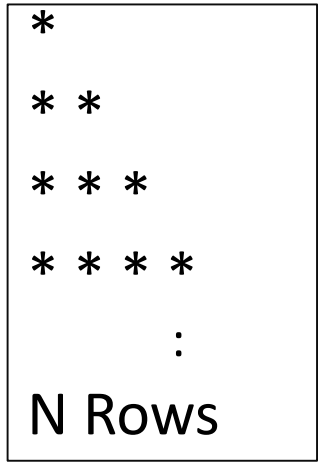
Exercises - I

- Write code that takes N as input and generates following outputs:









Exercises - II

- Write code that takes N as input and generates following outputs:

```
1
1 2
1 2 3
1 2 3 4
    :
N Rows
```

```
1
2 2
3 3 3
4 4 4 4
    :
N Rows
```

```
1
2 3
4 5 6
7 8 9 10
  :
N Rows
```

```
1
1 2
3 5 8
13 21 34
    :
N Rows
```

Exercises - III

- Write code that takes N as input and generates following outputs: