

Simple Variables

Introduction

- A variable is a memory allocation that has a name. That memory allocation can store a value.
- The variable name is the name of that memory allocation.
- We can use the variable as handle for getting the value it holds.

num

124

This variable holds the value 124. Its name is “num”.

Variable Declaration

- In order to use a new variable we should first declare it. Declaring a variable is done by specifying its type followed by its name.

Each language has its own available types. We will assume the availability of the following types:

`int`

`double`

- At the same declaration line we can declare as many variables as we want of the same type.

`int num, sum, total;`

Variables Declaration

- We should place our variable declaration within a rectangle. In the end of the line we should place a semi colon.

```
int numA, numB, numC;
```

Variables Initialization

- We can initialize a new declared variable in the same declaration line.

```
int numA=2, numB=4, numC=5;
```

Variables Assignment

- We can assign a new value to our variable by writing the name of our variable on the left, followed by the assignment operator '=' and the expression its value we want to assign afterwards.
- A semicolon should be placed at the end of the line.

```
numA = 22 + 4;
```

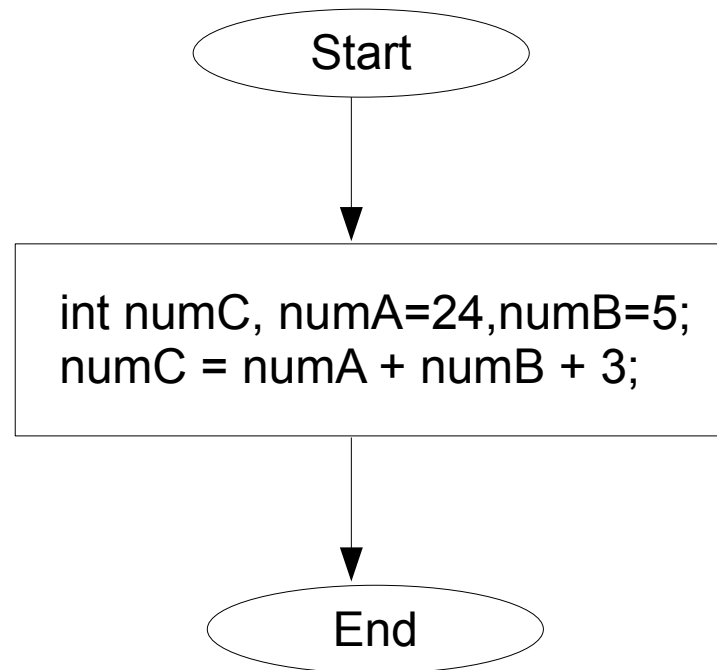
Variables Usage

- We can use a value a specific variable holds by specifying the name of that variable.

```
int numC, numA=24,numB=5;  
numC = numA + numB + 3;
```

Flowchart Diagram

- Flowchart diagram represents a set of execution instructions. In other simpler words, it represents a procedural code executed by a computer.



Flowchart Diagram Start & End

- Each flowchart diagram should start with:



Start

An oval-shaped terminal symbol containing the word "Start".

- Each flowchart diagram should end with:



End

An oval-shaped terminal symbol containing the word "End".

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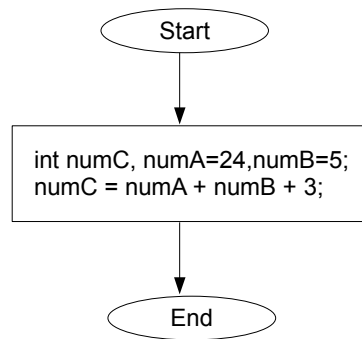
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