1. First OS is written in C
2. All microprocessor is written in C
3. All OS is written in C
4. python and other languages are written in C.
5. in C 0 is False and 1 is True

Compiler converts in machine language.

Codeblock

1. new Project
2. Console Application
3. C
4. GNU Compliter.

gcc filename.c

./a.out

where gcc is GNU complier Collections

Only One main()

Simple Input Output function

printf(): print formalt

scanf() : input

puts: it gives new line., preferred for printing the screen.

%d int

%ld long int

%f float

%lf long float

%c char

%s string

%x hexa

Variables

* data holder
* datatype variblename;

Variable Name Rules:

* Cannot have spaces
* cannot start with space
* no special char except underscore
* not dollor sign

DataTypes

* int
* float (small pi)
* char (single quote)
* double (large pi)

Operators

* + - \* / %

Conditions:

* if(condition){} else{}
* if(condition0){} else if(condition1){} else{}
* ternary
  + Saving Time
  + Syntax: var=(condition)? returnTrue: Return False;
* switch(expression){ case constant-expression: statement; break;}
* while(condition){}
  + We have to declare initial value of counter externally
* do {} while(condition){}
* for(initial; condtion; increament){}
  + We don’t have to declare initial value of counter externally
  + but if it is giving error then
    - right click project
    - propertities
    - build options
    - other options
    - write -std=c99
    - now run program easily.

Functions:

* declaration: datatype functionName(type1 arg1, ..); //this must be above main()
* definition: not in main()
* call in main()

Just got to know declaration is optional thing.

we write it just to let C know that we have such kind of function defined, below main()

If we are defining function before main() then there is no need of writing declaration.

Scope

* Global variables have default value as 0 (in the case of int)
* local variables stores default as garbage value (in the case of int)
* if we have same names, local has more preference
* in the case of String, default value of global is null

Array

* datatype arrayName[size]={1,3,4};
* index starts from 0 like [0]
* has fixed data type
* Multidimentions {{1,2},{1,2}}

Pointer

* A variable whose value id address of another variable
* Declaration: datatype \*name;
* Assignment name=&otherVarible; or
* Acceessing value of otherVariable through pointername use \*name;
* name variable stores address of othervaribale

String

* char array[]=”hello”;
* strcpy(dest,source) it copies/replaces
* strcat(dest,source)
* strlen() hwwhfengeey