**Basics of c**

* C – procedural programming language
* Developed by **Dennis Ritchie(1972)** for developing os
* A header file is a file with extension .h which contains C function declarations
* if the return type is void then there will be no return statement.
* In C, the execution begins with first line of main()
* All kind of functions must start an end with curly braces.
* 0 in return 0 means successful termination of the program.
* Latest is c11
* Writing void main() or main() is wrong and risky , even if compiler accepts
* Int main(void) means main function can called without a parameter and return an int value.
* ## is known as token pasting operator used to concatenate tokens passed to macro.

#include <stdio.h>

#define merge(a, b) a##b

int main()

{

    printf("%d ", merge(12, 34));

}

Answer: 1234

* A token passed to a macro can be converted to a string by using # before it.

#include <stdio.h>

#define get(a) #a

int main()

{

    // aditya is changed to "aditya"

    printf("%s", get(aditya));

}

* We can remove already defined macro using

#under macroname

#include <stdio.h>

#define LIMIT 1000

int main()

{

   printf("%d",LIMIT);

   //removing defined macro LIMIT

   #undef LIMIT

   //Declare LIMIT as integer again

   int LIMIT=1001;

   printf("\n%d",LIMIT);

   return 0;

}

* c is a middle level language
* types of signals

sigfpe- signal floating point error , like divide by 0;

sigill- signal illegal instructions

sigsegv- signal segmentation violation, when accessing a memory location not allocated to it.

Sigbus- signal buss error, dereferencing a memory location that is out of memory space.

Sigsys- signal system call

Sigtrap- this signal is send to process when an exception is occurred.

* Line splicing – if we put a slash(\) at the end of the comment then it will take the very next line as comment.
* Token – smallest element of a program.