Basic of c

.exe file is a software

Their are two types of software

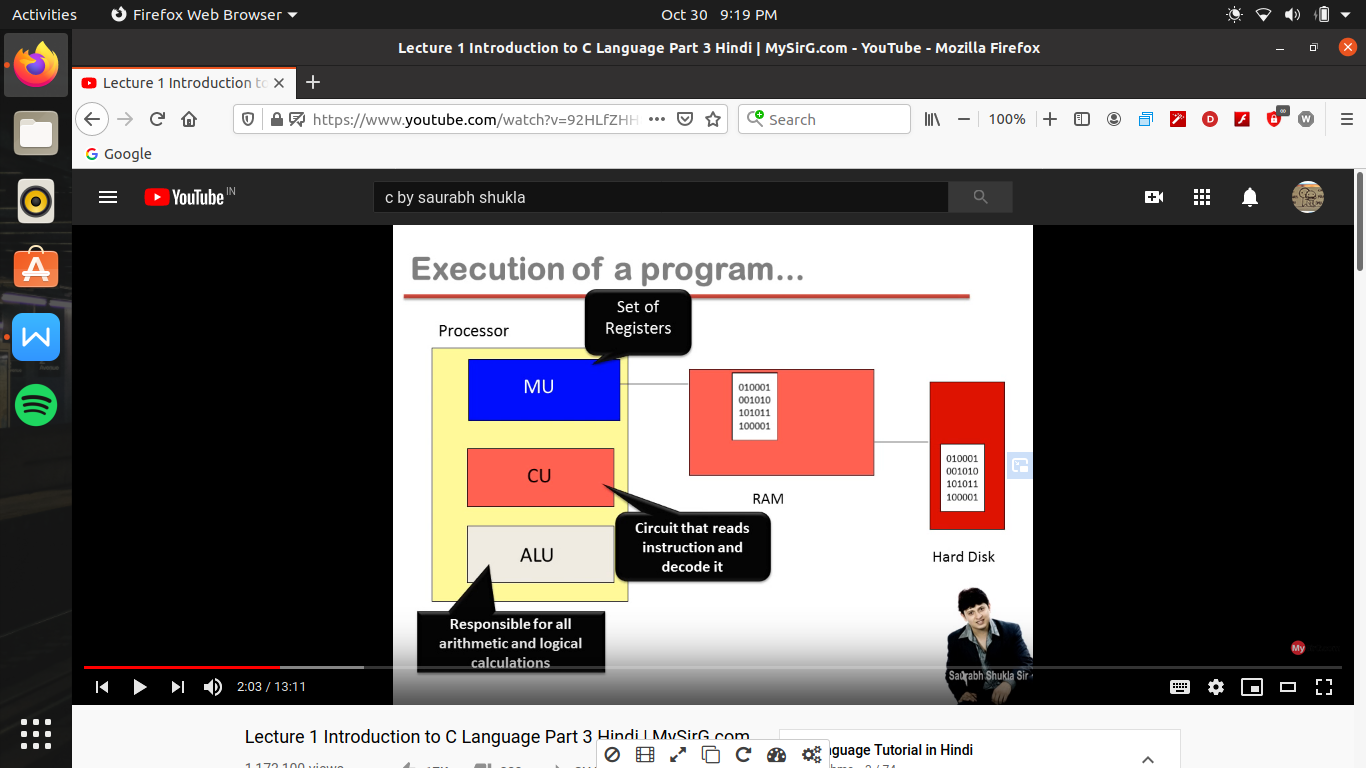
1. Application software -> these are ment to be for the user
2. System software -> these are ment to be for machine

These are the software which they are running in brackgound as a UI.

Set of instructions in called program ( ex planning)

And the active state of program is called process

Understanding of execution of file



First , the software store in the hand drive (i.e .exe file)

When we run a file so firstly what happen is

A copy of that software load in ram

And yeh operating system ki kimde dari h ki program ke chalane ke leye memory ka allocation karwaye

1. i.e called as memory management

Once the memory is allocated to the program then execution of the instruction will start

Hamare program me bahot sare instructions hai or 16 bit architecture ke hisab se pahale 16 (0 or 1) in the first instruction and next 16 ( 0 or 1) in the next instruction

As per one by one their are many instruction were written in the program

1. i.e ek instruction ka size fix hai i.e 16 bits

Now to execute the program

The first instruction (i.e 16 bits) gone to processor

Processor ke pass hota h bahot sare memory unit jaha pr bahot sare chote chote momery device hote h this memory device is called as resistors

On all of those resistors , their is one resistor which knows as instruction resistor, on the instruction resistor instruction

Ja kr store ho jayegi

And as per 16 bit principle , the instruction resistor bhi 16 bit ka hota hai ( yeh 16 bit is me likha hai ki kya karana hai computer ko )

Control unit ek circuit hai processor ke andar ji ka kam h ki padana , ecode karana or samajha ki kya meaning hai and then it give signal to ALU ki tum ko yeh kam karana hai

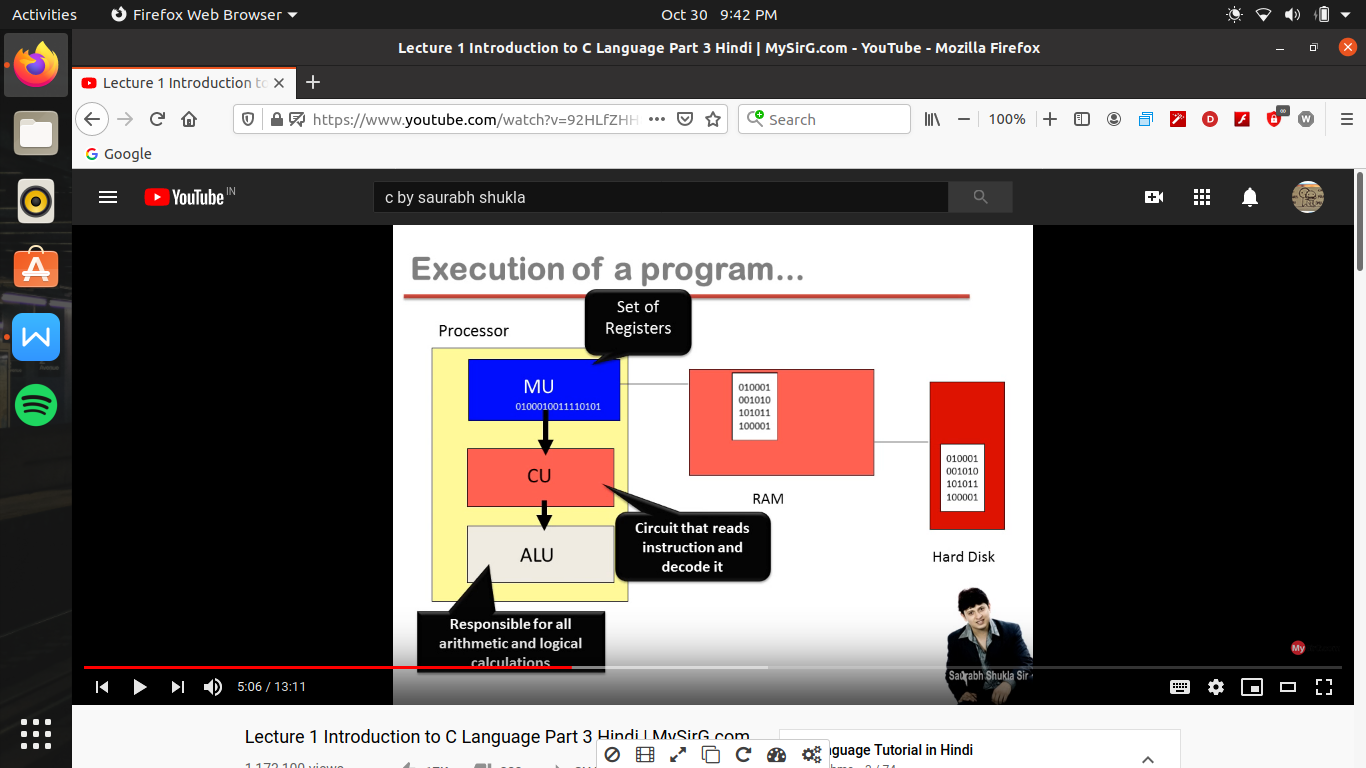
ALU ki har tarike ka calculation perform karata hai

System ke andar

ALU apani marji se kuch nhi karega jaisa CU bolega waise karega and ALU will execute the instruction

So by this process first instruction will execute

Or bari bari sari instruction will run by following process and when all the instruction runs then the our program will end



HOW TO MAKE A SOFTWARE

Now for this we have to make a .exe file b/c exe file hi software hai

Let assume we have to make a software named as sum.exe

But es file ko banane me ek dikhat yeh hai ki yeh ek operating system dependent language me hai

1. e agar yeh file dos os ke samajane layak hai toh yeh kisi or os me samajh nhi ayegi)

Tabhi jab bhi koe software banata hai toh particular os ke respect me banata hai

1. e we have to learn alag alag lanugage for the alag alag operating system)

Tabhi sab se asan tarika yeh hai ki hum asan ki language seekhe jo ki hai c\_language

C\_language me jab hum file banate h toh use kahate hai source file jis ka extension .c hoga

But this is not the software

So to convert this .c file first we have to run the software called as preprocessor

Preprocessor kya karega ki source file me jitane bhi line # se start ho rahi hai us ko handle karane ka kam preprocessor karata hai

Es me kuch (header file ) name ki file hoti hai jise hamane nhi banaya hai but jis hamare program me jodana jaruri hai but hum ne program me kuch aisi line likhi hai jis se preprocessor header file ke content ko hamari file ke content me mix kr deta hai

Or ek nayi file bana deta hai or yeh nayi file , yeh nayi file hamari file jaisi hi hai bs es me # se start hone wale statement hat chuke hai or kuch nayi lines a chuki hai

1. e preprocessor # se shuru hone wale statement ko handle karata hai es me es ek bahot ki popular command hai “$ #include<filename>” which means i.e file me jo bhi content hai es ko hamari file ke sath jod do to preprocessor “$ #include<stdro.h>” file ko hata dega or header file <stdro.h> me jo bhi likha hoga use add kr dega

Now the “.i ” file made by the preprocessor , now by the help of compiler software hume karana hai translate

Ab compiler hamare program ko translate kr ke ab yeh ek nayi file bana dega jis bolate hai hum object file (.obj)

Yeh object file kisi bhi operating software ke hisab se bani hai

(compiler alag alag os ke hisab se alg alg ate hai)

Now we need library files because in the object files aisa bahot kuch likha hai jo operating system nhi samajh payega or un ka meaning library lifes me pahale se likha hai

( like a dictionary jo word nhi samjh ayega toh wo library files se meaning nikalega)

Now library file ka code or object file ka code hum ek software use karege use bol dege linker

Linker object file or library file ko mix kar ke ek nayi file bana dega i.e .exe file now by this we made a software

