

Day 3

19/08/2025 Tuesday

## ⇒ The Evolution of the Software Industry

From Binary to High-level languages and Beyond

The term Software was introduced ⓐ built by John in 1950's



\* He made the different b/w hardware & software

\* Initially the programs were written using 1 & 0

101010 → Binary language

why it is called Binary means it contains only

2 digits ⓐ values.

\* wheather it is a number, text, image, Audio ⓐ video any format any content internally in the computer ⓐ in a machine it will be stored ⓐ processed in the form of Binary language.

\* Binary language was very tough to write

It was used only in university & Scientists were used

\* And at that time they thought we can only write and nobody other people cannot write so at that time the language called ~~high-level~~ Assembly language.

Eg: MOV AX, 01  
 SUM AX,  
 SET  
 JUMP

Assembler software it will convert the  
 code into Binary form

10001 1001 10001  
 1101 0011 0111

\* Slowly they come to know that this language  
 is also ~~though~~ tough

\* So in 1960/70's → Cobol [common business  
 oriented language]

→ Basic

→ Fortran [Formula Translation]

→ Beginner's All-purpose Symbolic  
 Instruction Code.

UNIX } operating system  
 DOS }

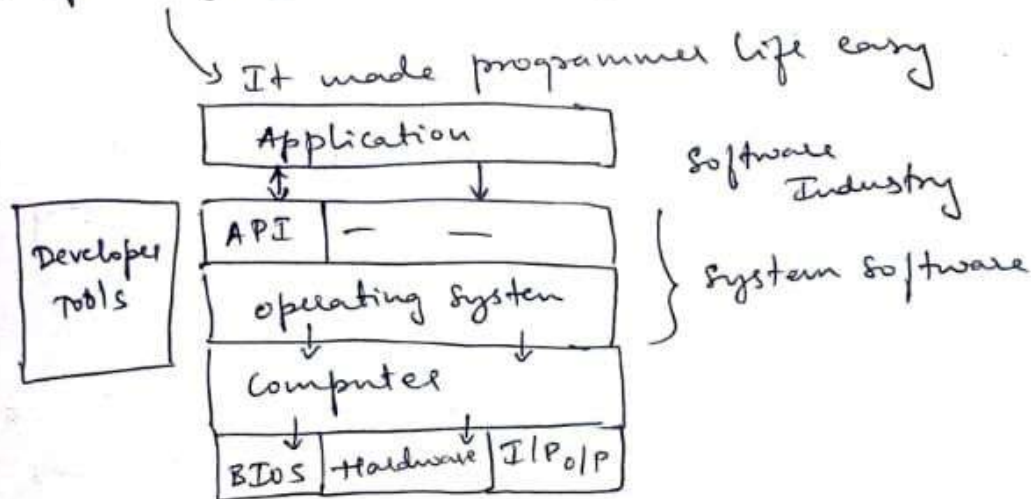
\* every year they were trying to easy the program  
 and how the large number of engineers can use  
 this was the main aim

- \* At this time
- The processor
  - The computer
  - The <sup>software</sup> ~~program~~ tools
  - operating system

[OS is the Middle man]



- \* In very first to print the document we were written a lines of code  
large no. of
- \* By now operating system made use easy in around <sup>in</sup> few lines of code  
(number of lines of code reduced)
- \* operating system is doing all the work <sup>for</sup> you.



- \* Companies like Microsoft, IBM, Apple they built operating system with developer tools

By doing this lakhs of software engineers got the ability of building Applications

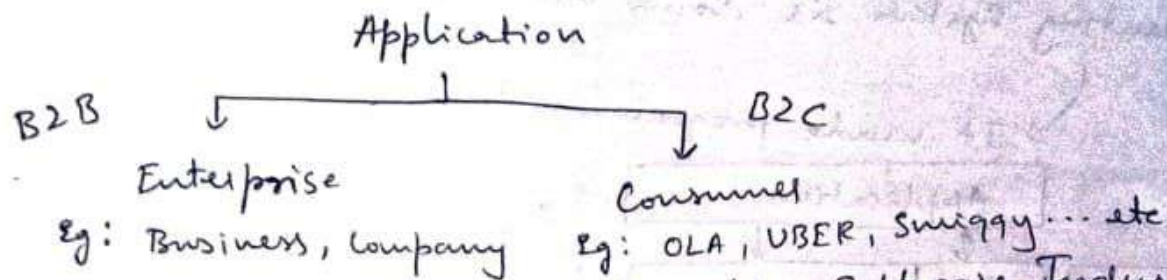
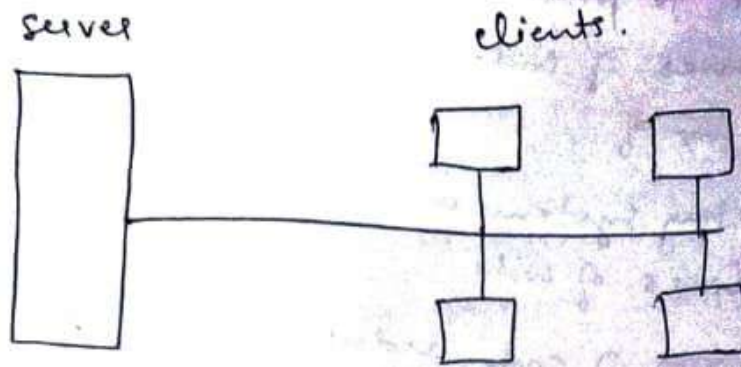
- \* Less time for building the solutions.

- \* Early there were Stand-alone Application :

- It will install in single computer and there only it should run
- It was not able to talk to another computer

= Around 80's & 90's Network & Internet

In this <sup>time</sup> the Application which was running in the same computer by using network & internet. the client computer got access to the Application <sup>or</sup> a software

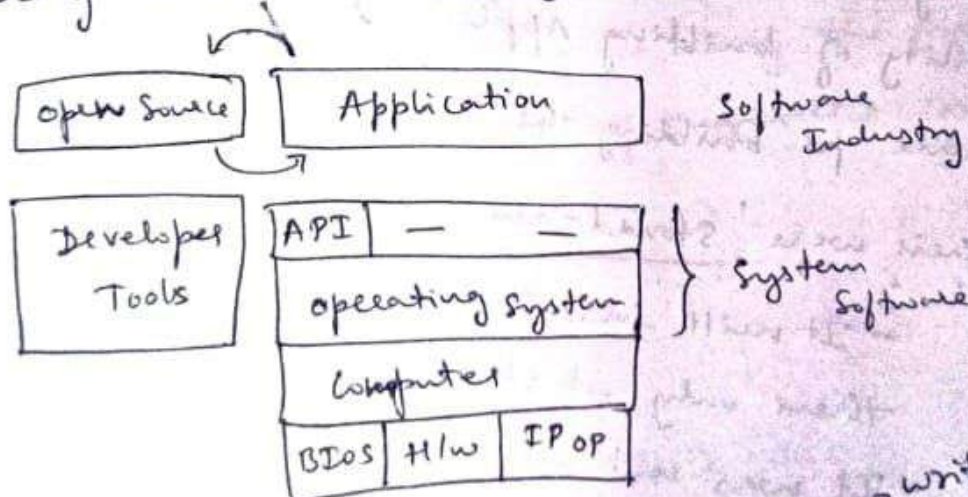


\* The new trend started in the Software Industry called open source trend

while building the Application there were some code's which are similar

Example Database Connection.

They compressed the similar code into single library and those library are open-source

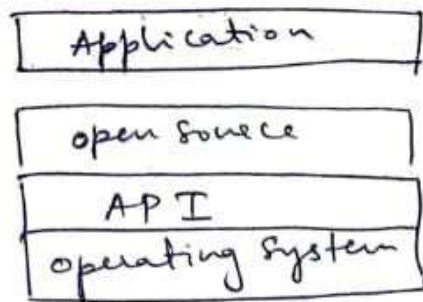


⇒ Low code : doing customization with few lines of code

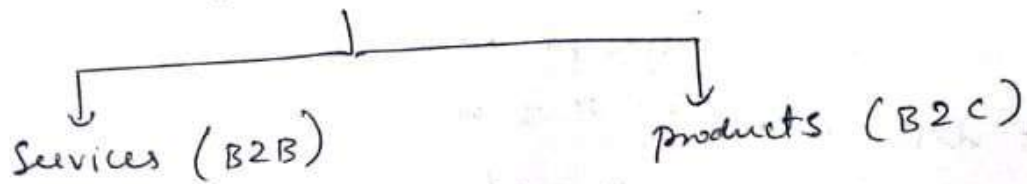
No code : every is drag and drop. no single line of code would be written



Angular React  
Django → open source framework



## Software Industry



- \* They are service providers. Like they get the client and their requirement they start work on the project and finally build the end to end client satisfactory service for their Business

- \* The software (or) the Application they build It is propriety it only belongs to the client.

- \* UPI  
Delivery Apps.  
Shopping  
Banking  
Travell

- \* Every thing we are using daily life are B2C.

= without a software it is very difficult to run a business it may be in any sector of business like food, fashion, travell etc.



In India first Super Computer who buy it  
(or) where it came?

⇒ 1980 → Asian paints - imported the first computer.  
↓  
Invested and build a Software

They will refund the Money back to raw material in less than 3-4 weeks..

It will having a specific idea that this shop (or) this district wants this much of paint and this color has to be delivered.

These things happen because they invested on Software very early and they have the huge data and by that data they can do all these things

TESLA

5000/-

World GDP

5% → IT

↓

10% GDP

The total IT industry revenue was near 1 T \$

Top 10 Companies

✓ Almost 8 companies are technology based companies.