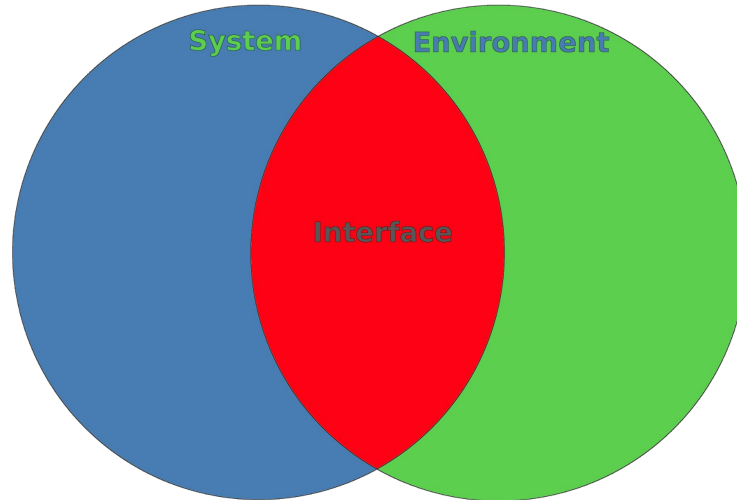


# Define Interface?

V.V.S.K Chaitanya

# Interface?

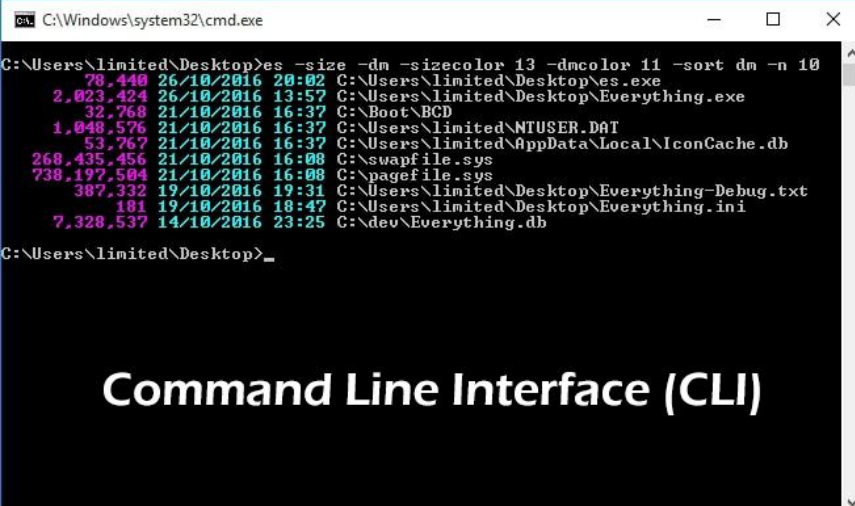
Interface is a layer which connects two different systems. Interface is a defined contract of Input / Output (IO) for the systems to communicate with each other.



# Command Line Interface (CLI):

Interface layer where users can execute a single command per each line. Most of the systems and libraries provide CLI commands to easily execute the programs.

**Example:** Linux Bash, Windows CMD, Powershell, Mac Terminal, other CLI Tools



```
C:\Windows\system32\cmd.exe

C:\Users\limited\Desktop>es -size -dm -sizecolor 13 -dmcolor 11 -sort dm -n 10
 70,440 26/10/2016 20:02 C:\Users\limited\Desktop\es.exe
2,023,424 26/10/2016 13:57 C:\Users\limited\Desktop\Everything.exe
 32,768 21/10/2016 16:37 C:\Boot\BCD
1,040,576 21/10/2016 16:37 C:\Users\limited\NTUSER.DAT
 53,767 21/10/2016 16:37 C:\Users\limited\AppData\Local\IconCache.db
268,435,456 21/10/2016 16:08 C:\swapfile.sys
738,197,504 21/10/2016 16:08 C:\pagefile.sys
 387,332 19/10/2016 19:31 C:\Users\limited\Desktop\Everything-Debug.txt
 181 19/10/2016 18:47 C:\Users\limited\Desktop\Everything.ini
7,328,537 14/10/2016 23:25 C:\dev\Everything.db

C:\Users\limited\Desktop>_
```

**Command Line Interface (CLI)**

# User Interface (UI)

The layer where the end user directly interacts with the application.

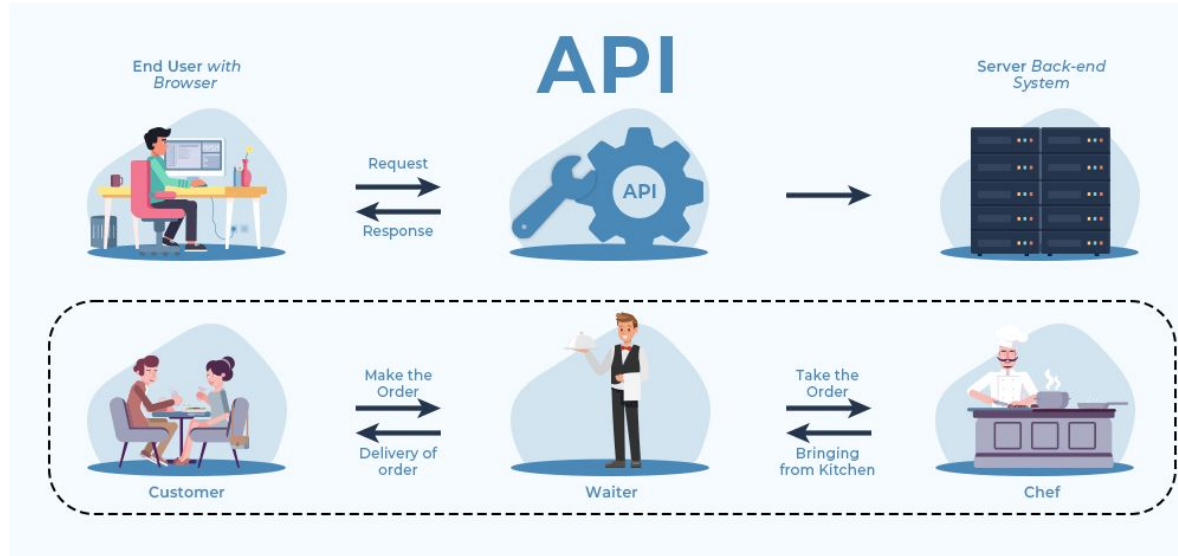
**Example:** GUI for Desktop Apps / Mobile UI for Mobile Apps / Web UI for Web Apps



# Application Programming Interface (API):

The layer where an application directly interacts with a program / service / other application / system.

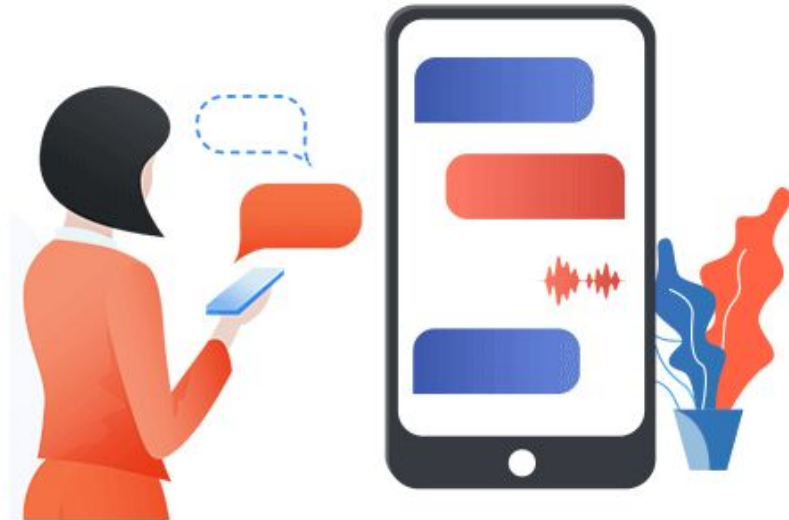
**Example:** REST API / Ecommerce API / Google Maps API / ChatGPT API.



## Conversational Interface (CI):

Latest Trending Interface that enables systems / applications to interact with users using voice or text, mimics real-life human communication.

**Example:** Chatbots and Voice Assistants like Siri, Alexa, Google Assistant

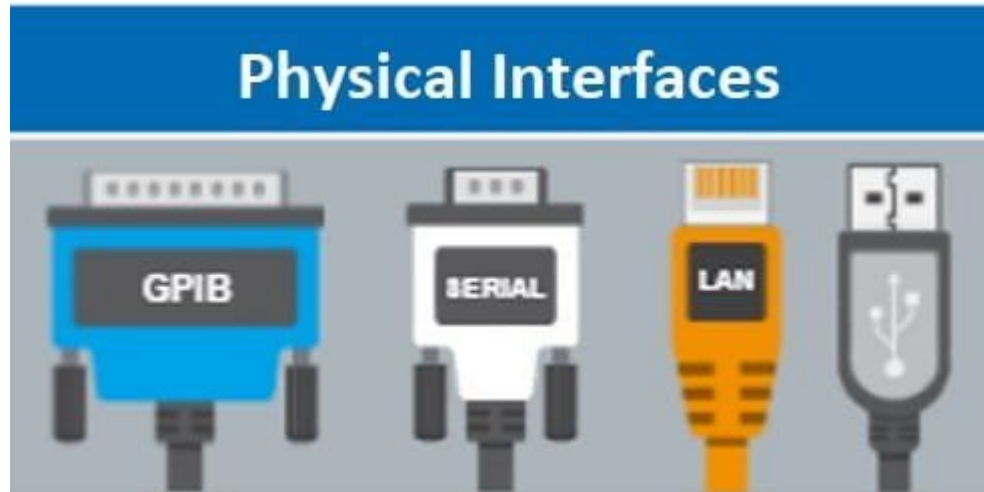


## Other Examples:

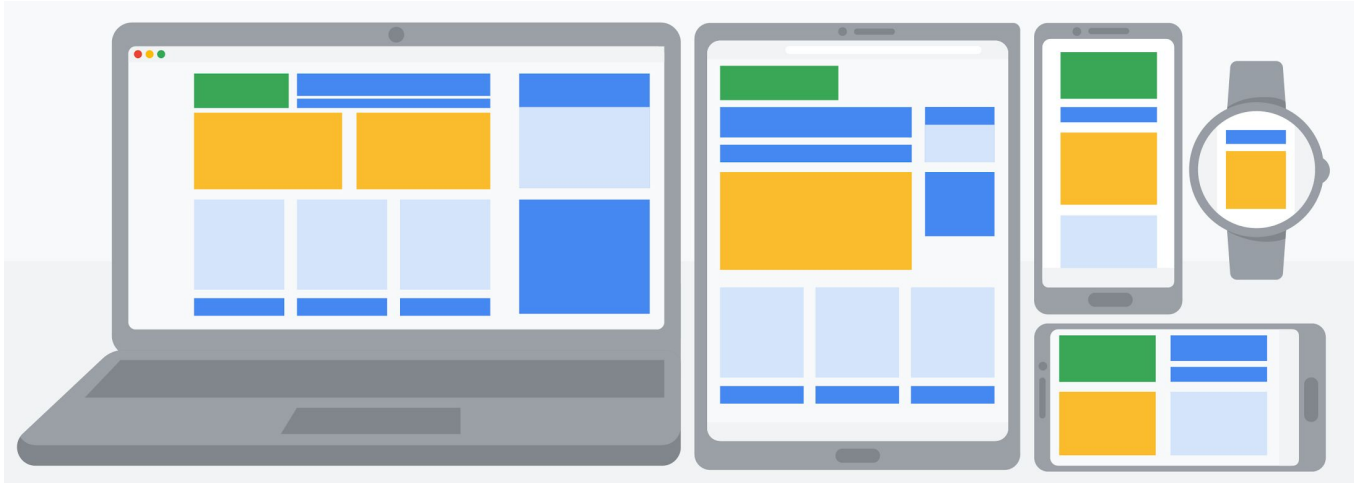
**Hardware Interface:** Plug, Socket, Cables, USB

**Physical Interface:** Drivers, Network Adapters, Ethernet Adapter

**Virtual and Logical Interface:** IP Port, Virtual host and ports

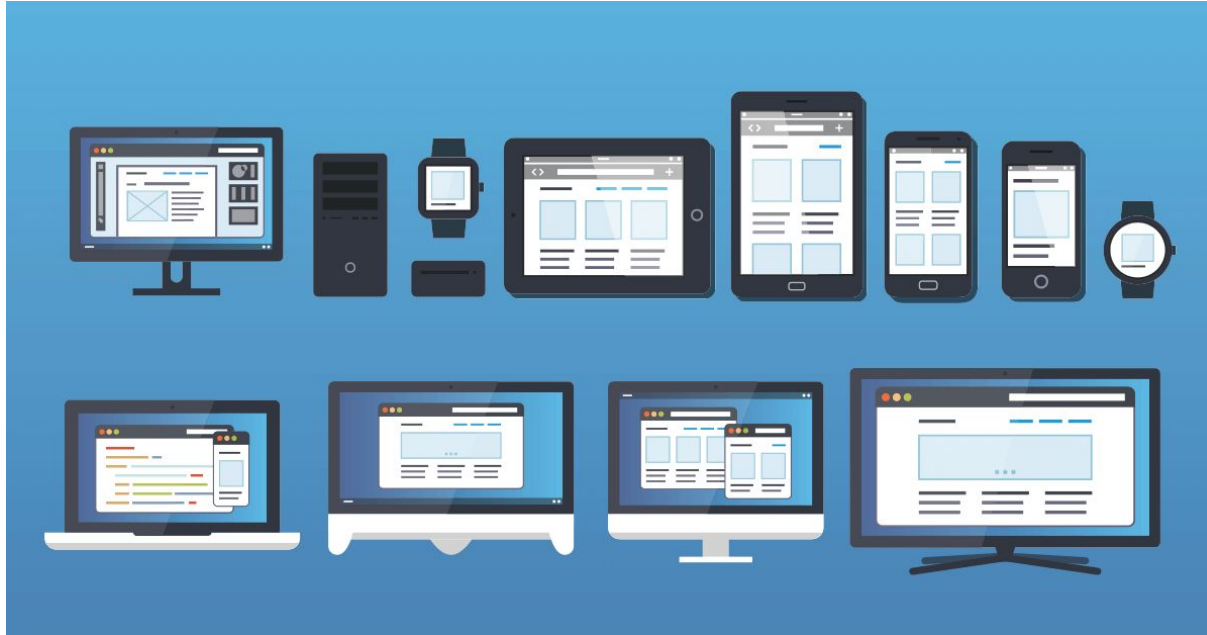


# Evolution of Devices and User Interfaces:



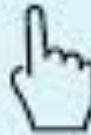


# User Interface based on devices



Linux - Windows - macOS - Android - Wear OS - Work OS

## THE NEXT INTERFACE?



Natural Language Processing - NLP  
Large Language Models - LLM