Interface

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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.

1. **User Interface (UI):** The layer where the end user directly interacts with the application.

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

2. **Application Programming Interface (API):** The layer where an application directly interacts with a program / service / other application / system.

   Example: Database API / Google Maps API / ChatGPT API.

3. **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, AWS and Azure CLI

4. **Conversational Interface (CI):** Latest Trending Interface that enables systems / applications to interact with users using voice or text , and mimics real-life human communication.

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

Other Examples of interfaces are

- **Hardware Interface:** Plug, Socket, Cables, USB
- **Physical Interface**: Drivers, Network Adapters, Ethernet Adapter
- **Virtual and Logical Interface:** IP Port, Virtual host and ports