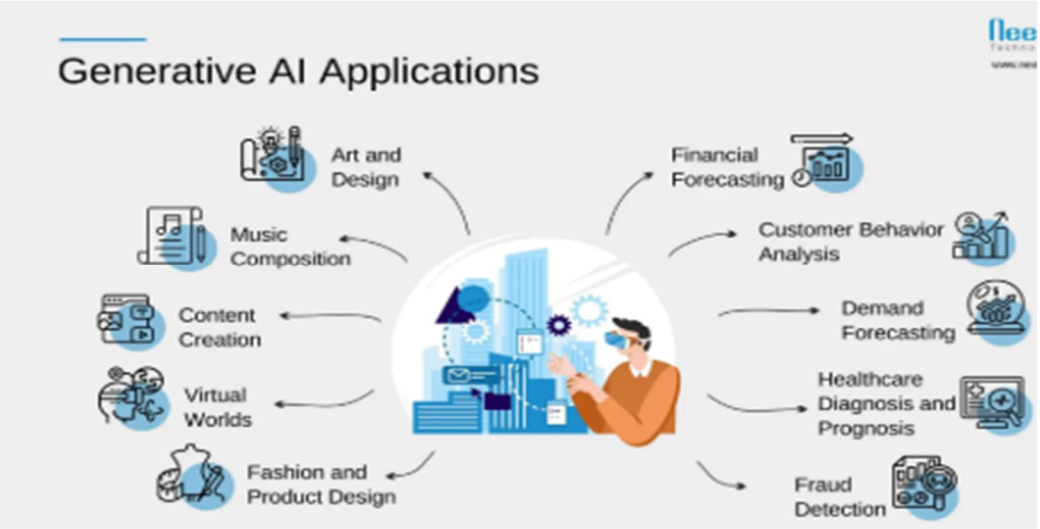
📄 What is Generative AI?

Generative AI is a branch of artificial intelligence that focuses on creating new content. Unlike traditional AI systems that recognize patterns or classify data, generative AI models can **produce entirely new outputs** such as:

- 📝 **Text** – Articles, poems, summaries, and conversations (e.g., ChatGPT).
- 🖼️ **Images** – Artistic or realistic visuals from text prompts (e.g., DALL·E).
- 🔊 **Audio** – Music or human-like speech generation (e.g., voice cloning tools).
- 💻 **Code** – Functional computer code from natural language input (e.g., GitHub Copilot).

These models are trained on massive datasets and use machine learning techniques to understand and generate content that resembles human creation.



🧠 How Does Generative AI Learn?

Generative AI models learn patterns and structures from data using techniques like deep learning. In many ways, this learning process can be compared to **human learning** — particularly two types:

1. Deduced Learning (Learning by Experience)

This type of learning happens through **direct interaction** with the environment — you experience something and draw conclusions based on that experience.

🔥 **Real-Life Example:**

Imagine a child touches a flame, gets burned, and learns that fire is dangerous.
They **deduce** from the experience that they should avoid fire in the future.

➡️ **In AI terms**:
The model "sees" many examples of something (e.g., millions of sentences) and learns the patterns through repeated exposure.

---

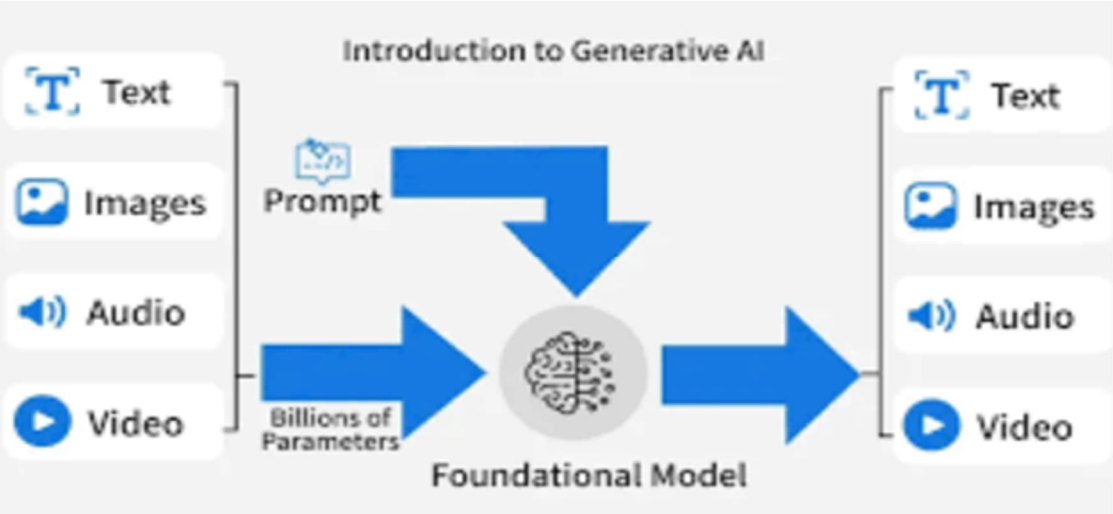
2. Induced Learning (Learning by Instruction or Inference)

This type involves **learning through information or reasoning** without direct experience.

🔥 **Real-Life Example:**

A child is told by a parent or teacher that fire is dangerous.
Even without ever touching it, they understand the risk and avoid it.

➡️ **In AI terms**:
The model generalizes from its training data to make **informed predictions** about new, unseen inputs. It hasn't seen every possible example, but it can infer what might happen based on what it's learned.



🧠 **In Summary**

Generative AI is powerful because it can **create** new and meaningful content in many forms. It learns using massive datasets and mimics some of the ways humans learn:

- Through **experience** (deduced learning).

- Through **instruction or reasoning** (induced learning).

As a result, generative AI is now being used in fields ranging from creative arts to customer support, education, and software development.