AICamp

AI Immersion Workshop:
Day 1 - Introduction to LLMs

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RoadMap Contribution: Subash Nataraj
Speaker: Sam Adekunie
AI Camp Content: AI Camp London

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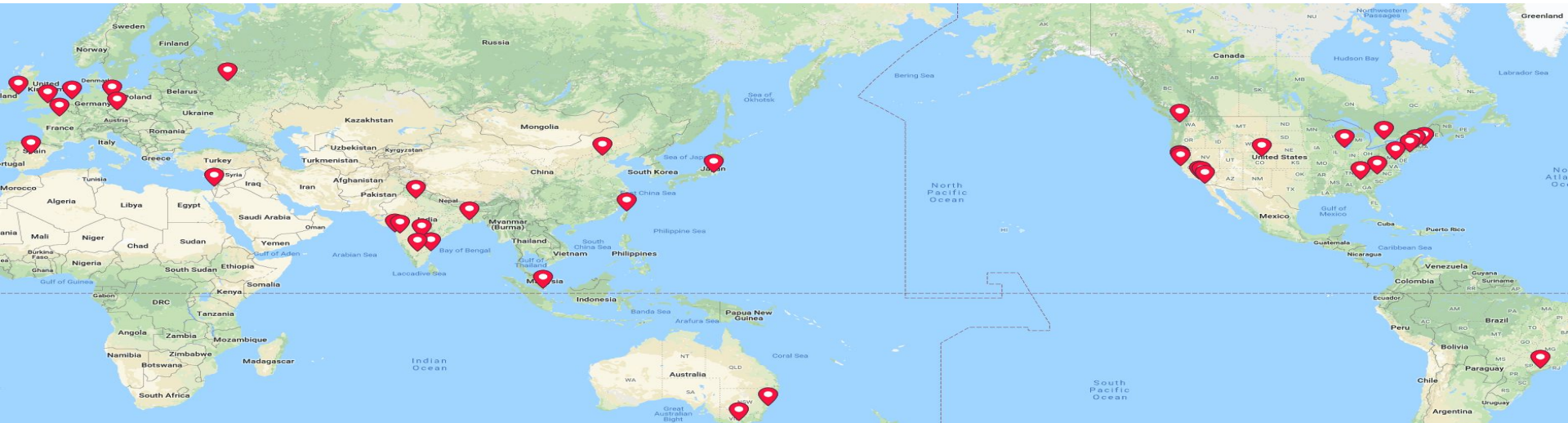
AICamp

Who we are?

- Global AI developers community with 400,000+ AI developers in 150+ countries.
- Empower every developers to learn and practice AI from anywhere at any time.
- Local community chapters (50+ cities in 15+ countries):
  - North America: Seattle, San Francisco, NYC, Boston, Toronto, Chicago, Atlanta, Austin, 20+ cities
  - Europe: London, Paris, Berlin, Tel Aviv, Madrid, Amsterdam, Dublin, Zurich
  - APAC: Bangalore, Hyderabad, New Delhi, Sydney, Melbourne, Singapore, China



How to get involved?

- Join community builders team
- Submit topics to speak
- Sponsor the meetups (venues, food/drink, and prizes)
- Collaborate on your events
- Contact us: info@aicamp.ai

More learning events

- AI Virtual Seminar Weekly
- AI Meetup/Workshop

London team

Sam Adekunle

David Tang

Tibor Ormosi

Subash Natarajan

Please reach out if, if you have ideas for partnership / talks / demos and any suggestions 😀

Or contact support@aicamp.ai

Kevin Vegda

Program Overview - Getting started with LLM-s

What You'll Learn

`Foundations → Implementation → Mastery use of LLM API-s`

Tools Used

`[ Colab | Ollama | Bedrock | Gemini | OpenAI | IDX]`

Format

- 📅 Daily 30min Sessions at 6PM GMT
- 🔧 Hands-on Practice
- 💻 Live Coding

AI Immersion RoadMap - AICamp

Day 1: Foundations

AI/ML
Fundamentals
LLM Basics
Setup & Ready

Day 2: Cloud AI

AWS Bedrock
Claude Integration
Cloud
Development

Day 3: Multi-Model

Gemini API
Mixed Data
Types
Practical Apps

Day 4: Open AI

API Integration
Assistants

Day 5: Local LLMs

Lama Setup
Model Optimization
Local Deployment

Day 6: Prompting

Mastering
Techniques
Best Practices
Building Prototype

Day 7: Showcase

Project Demos
Knowledge Share
Future Learning Path

Housekeeping

Schedule 🕑

- Daily Sessions: 6 PM GMT
- Duration: 30 minutes
- Please arrive 5 min early

Tools Ready ⚡

- Google Account
- Python installed
- Slack workspace joined

Communication 💬

- Questions in Slack channel
- Session recordings available
- Resources shared post-session

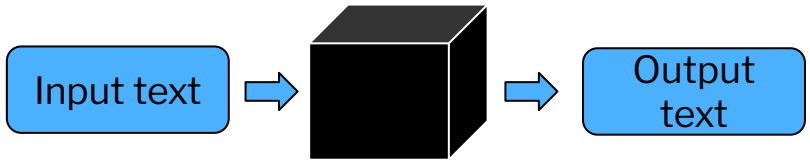
Session Format 📝

- Live demos
- Interactive Q&A
- Hands-on practice

Overview - What are LLM-s

- Simple definition
- Evolution from traditional ML
- Input → Process → Output visualization

Black Box System Model



"We don't need to know what happens inside"

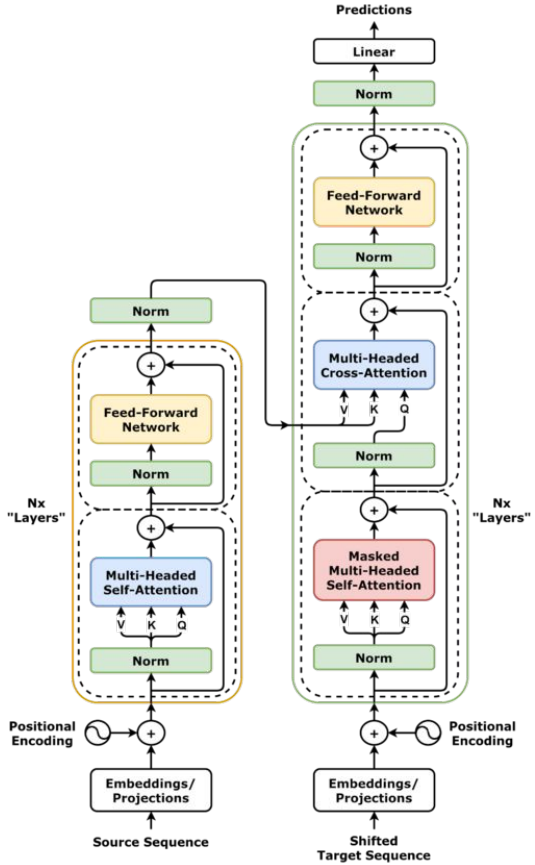
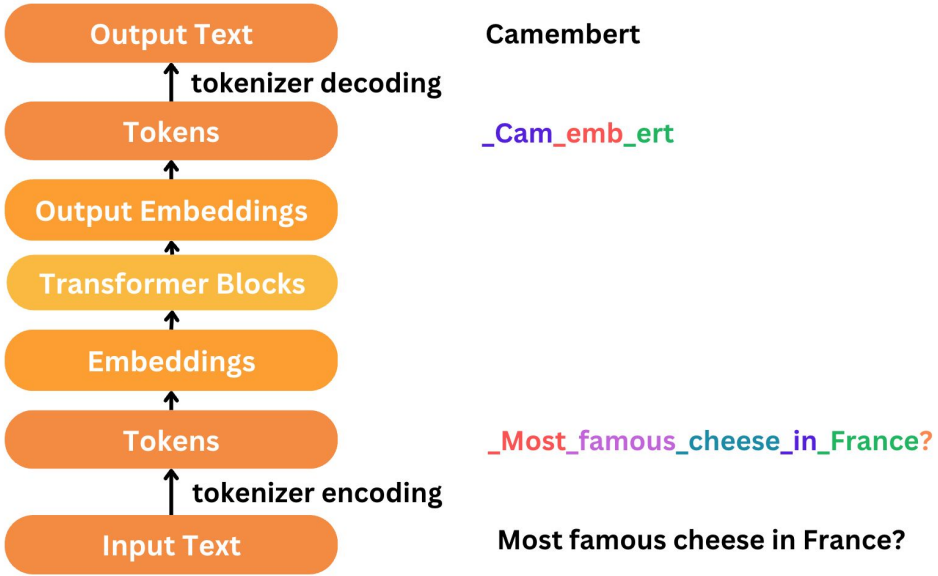


Image from https://en.wikipedia.org/wiki/Transformer_%28deep_learning_architecture%29

LLM - Key components



- Input text
- Output text
- Tokenization
- Transformer Blocks
- Embeddings
- Context window concept

Image Ref: https://docs.mistral.ai/guides/tokenization/

LLM - Major Players

Cloud LLMs

- **OpenAI GPT-4/01-03**
- **Claude**
- **Google Gemini**

Local/Open Source LLMs

- **Llama 2**
- **Mistral**
- **Ollama**

LLM Core concepts

- **Temperature (creativity vs precision)**
- **Context length (memory)**
- **Tokens (units of text)**

LLM Capabilities and Limitations

Can Do

- **Text Analysis**
- **Code Help**
- **Content Gen**

Can’t Do

- **Real-time Data**
- **True Learning**
- **Web Access**

Practical Applications

- **Code assistance**
- **Content creation**
- **Analysis tasks**
- **Real-world examples**

Cloud Development - Why Cloud IDE

Local Machine 💻

- ⏰ **Long setup time**
- 🔧 **Complex configuration**
- 📉 **Limited resources**

Cloud Platform ☁️

- ⚡ **Instant start**
- 🎯 **Pre-configured**
- 🚀 **Powerful resources**

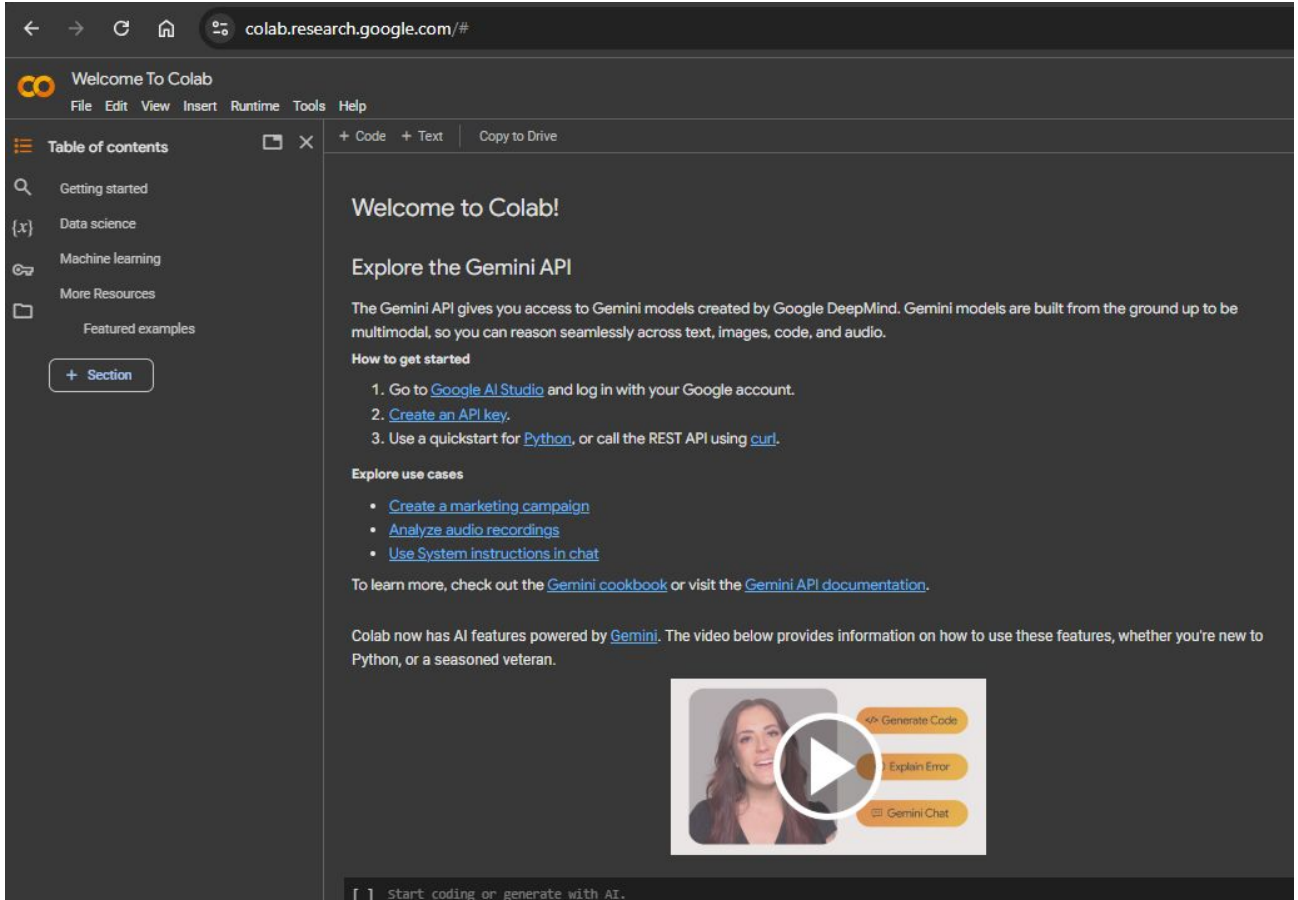
Meet Google Colab ⭐
Your Cloud Lab

🔬 **Free research tool**

🐍 **Python ready**

🎮 **GPU powered**

👥 **Team friendly**



Quick Start Guide 🏃
Get Running in Minutes

🌐 **Visit Colab**

📓 **New notebook**

⚙️ **Choose runtime**

🎯 **Start coding**

https://colab.research.google.com/

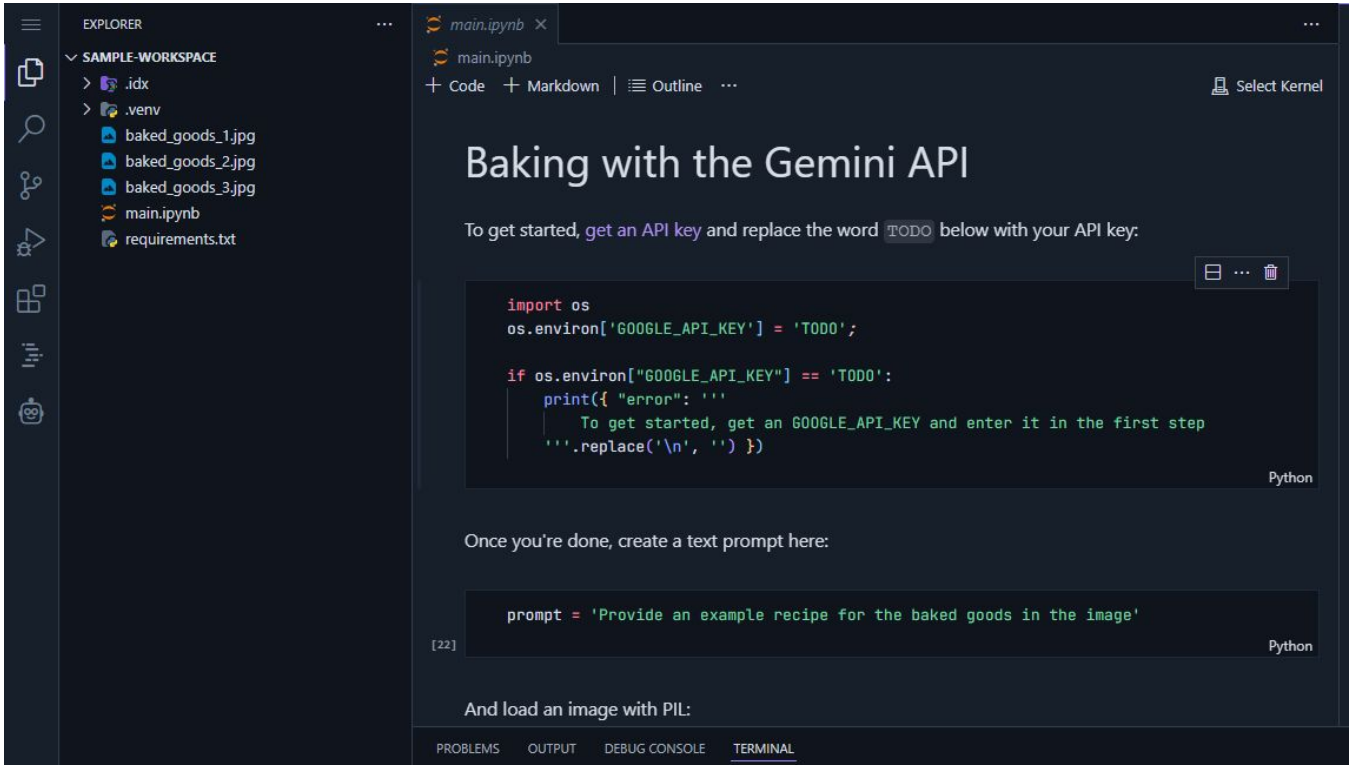
Meet IDX 🎮
Your Cloud Workspace

🖥️ **VS Code in browser**

📟 **Full terminal**

🔄 **Git ready**

🛠️ **Complete toolset**



IDX Launch Guide 🚀
Quick Setup Steps

AICamp

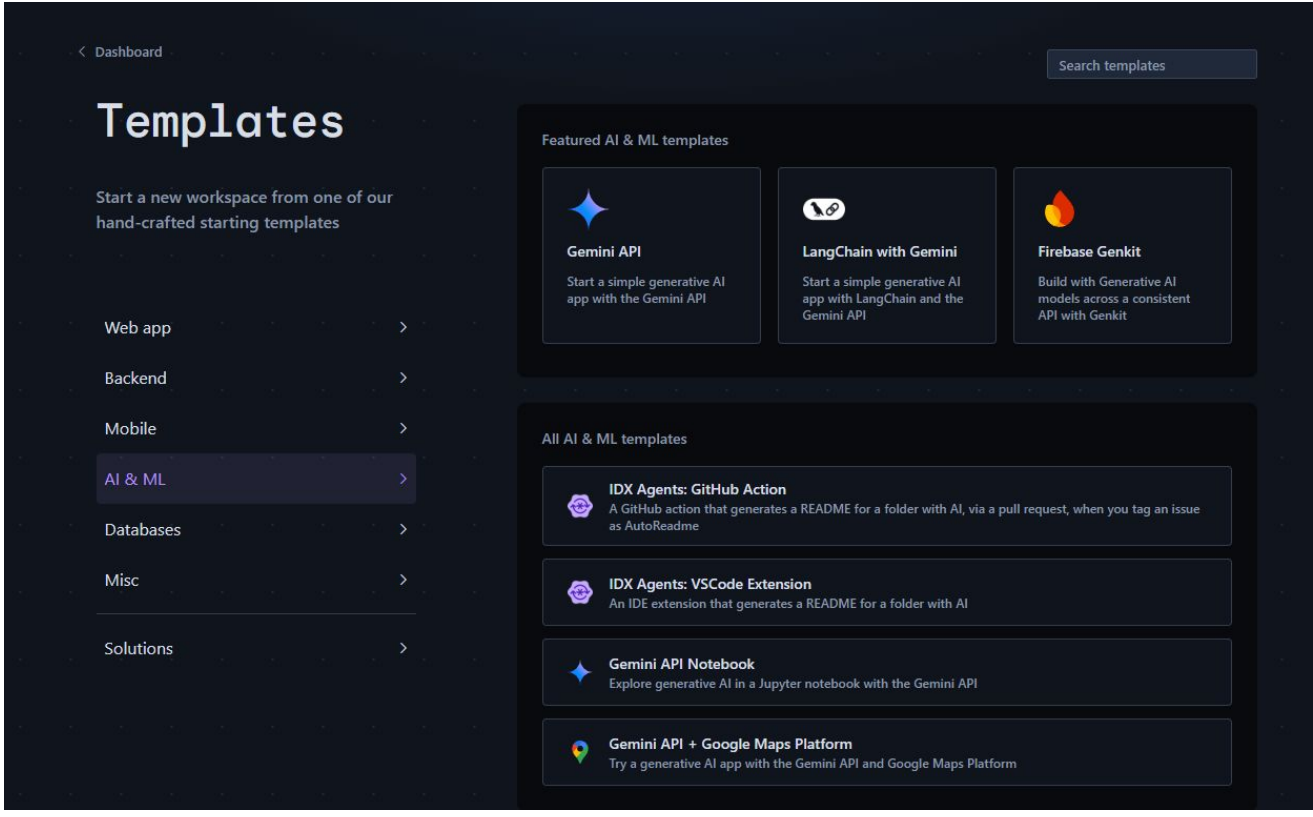
🎯 Access

https://idx.google.com/

💫 New workspace

🔨 Pick your tools

🥎 Start coding



Let's Practice! 💪
Live Demo Time

🎯 **Setup walkthrough**

⌨️ **Key commands**

📚 **Resources**

❓ **Q&A session [Space for live demo]**