

# LLM using Google Gemini

## Write a First LLM Application using Google Gemini to explore all Google Gemini Models using Google CoLab: -

### Prerequisites: -

Python 3.9+

Google CoLab or VSCode or Jupyter Notebook etc.

### Step1: - Create Free API Keys for Google Gemini Models

#### a) Create Free API Key

Login [www.aistudio.google.com](https://aistudio.google.com) and create API Key

Watch YouTube Video How to create Free API Key

<https://youtu.be/DN4Xfct1rdU>

#### E.g.: -

```
GOOGLE_API_KEY = AIzaSyDeYxiJDAXJvn9JtcPiGDonKO1mCUDMLMA
```

b) Set API Key

### Step2: - Install Required Packages

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

```
!pip install -q -U google-generativeai
```

```
!pip install ipython
```

### Step3: - import necessary packages

```
import pathlib
```

```
import textwrap
```

```
import google.generativeai as genai
```

```
from IPython.display import display
```

```
from IPython.display import Markdown
```

```
def to_markdown(text):
```

```
    text = text.replace(".", "*")
```

```
    return Markdown(textwrap.indent(text, '> ', predicate=lambda x: True))
```

### Step4: - To Fetch an environment variable

```
from google.colab import userdata
```

```
GOOGLE_API_KEY = userdata.get("GOOGLE_API_KEY")
```

```
genai.configure(api_key=GOOGLE_API_KEY)
```

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## **Step5: - List Models to see Available Gemini Models**

```
for m in genai.list_models():  
    if 'generateContent' in m.supported_generation_methods:  
        print(m.name)
```

## **Step6: - Generate text from text inputs**

```
model = genai.GenerativeModel('gemini-pro')  
model  
  
%%time  
response = model.generate_content("what is generative ai?")  
response
```

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