

Gemini historical artifact description

Gemini Historical Artifact Description is a web application that leverages Google's Generative AI to create unique and detailed descriptions of historical artifacts. The app allows users to input an artifact name or historical period and specify the desired word count for the description. Using these parameters, the AI generates engaging and informative content. Additionally, the app includes a feature that shares an interesting historical fact to engage users while the AI generates the description.

Scenario 1: Describing an Ancient Egyptian Artifact

A historian specializing in Ancient Egypt opens the Gemini Historical Artifact Description app and inputs "Tutankhamun's Golden Mask" with a 1200-word count. As the app generates the content, it shares a fascinating historical fact. The AI quickly delivers a detailed and insightful description. The historian reviews the well-crafted content and incorporates it into their research or publication, ready to share with their audience.

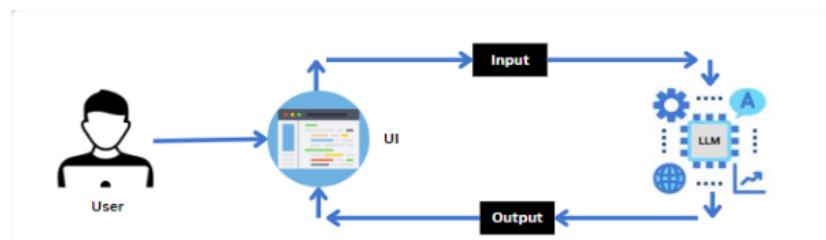
Scenario 2: Crafting a Renaissance Artifact Description

A museum curator looking for detailed descriptions of Renaissance artifacts uses the Gemini Historical Artifact Description app, inputting "Leonardo da Vinci's Notebook" and specifying an 800-word count. The app provides an intriguing historical fact while generating the content. The AI produces a concise yet informative description filled with historical context and artistic significance. The curator finds the description valuable and incorporates it into the museum's exhibition materials.

Scenario 3: Developing a Medieval Artifact Description

A medieval history enthusiast accesses the Gemini Historical Artifact Description app to generate new content for their blog. They enter "The Bayeux Tapestry" as the topic and select a 1500-word count. The app entertains with a historical fact during the content creation process. The AI delivers a comprehensive and well-detailed description. The enthusiast reviews the high-quality content and publishes it on their history blog, confident it will engage and inform their readers.

Architecture



Project Flow

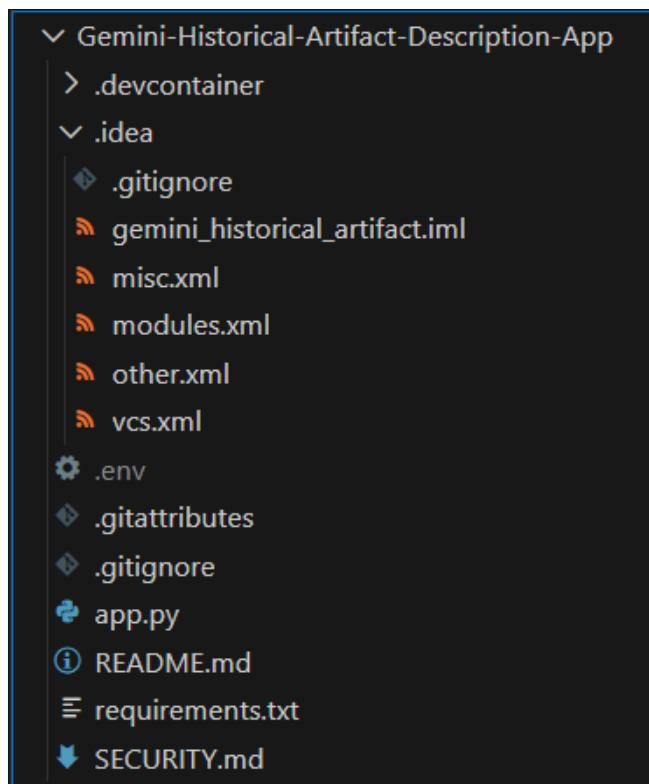
Project Flow

- Users input a topic and specify the desired length of the blog post through the Streamlit UI.
- The input topic and length are sent to the Gemini 1.5 Flash language model, which is integrated into the backend.
- Gemini 1.5 Flash processes the input and generates a blog post based on the user's specifications.
- The model autonomously creates a well-structured, engaging blog post tailored to the specified topic and word count.
- The generated blog post is sent back to the frontend for display on the Streamlit app.
- Users can customize the blog post further if desired and export or copy the content for their use.

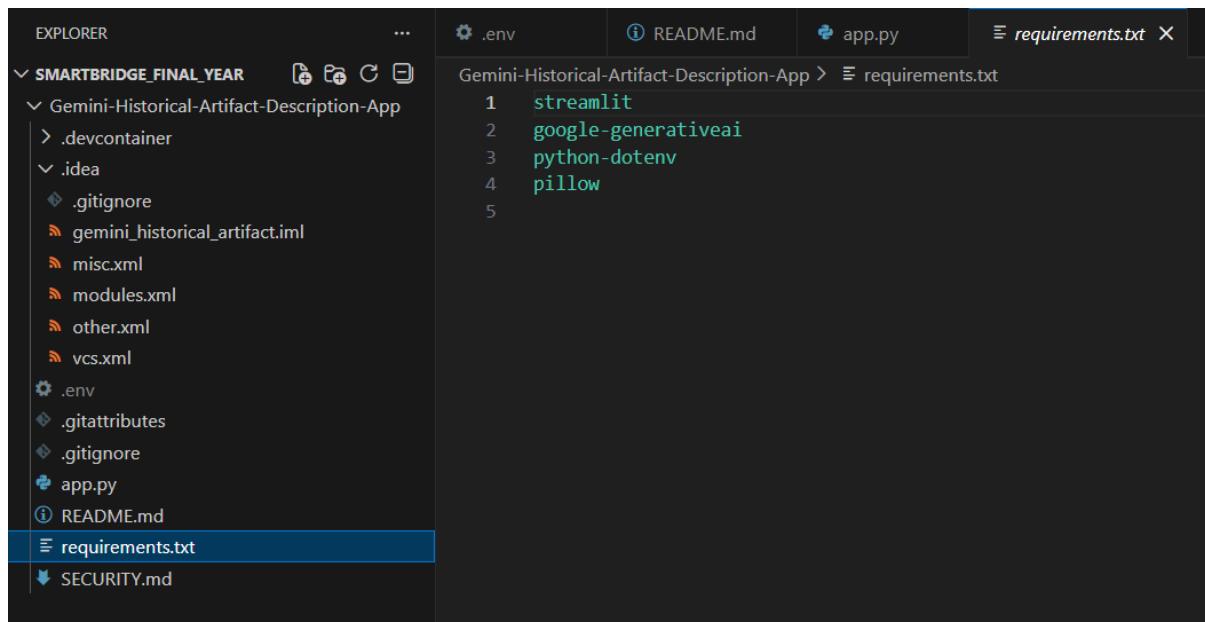
To accomplish this, we have to complete all the activities listed below,

- Initialize Gemini 1.5 Flash:
- Generate Gemini 1.5 Flash API
- Initialize the pre-trained model
- Interfacing with Pre-trained Model
 - Blog Generation
- Model Deployment
 - Deploy the application using Streamlit

Project Structure



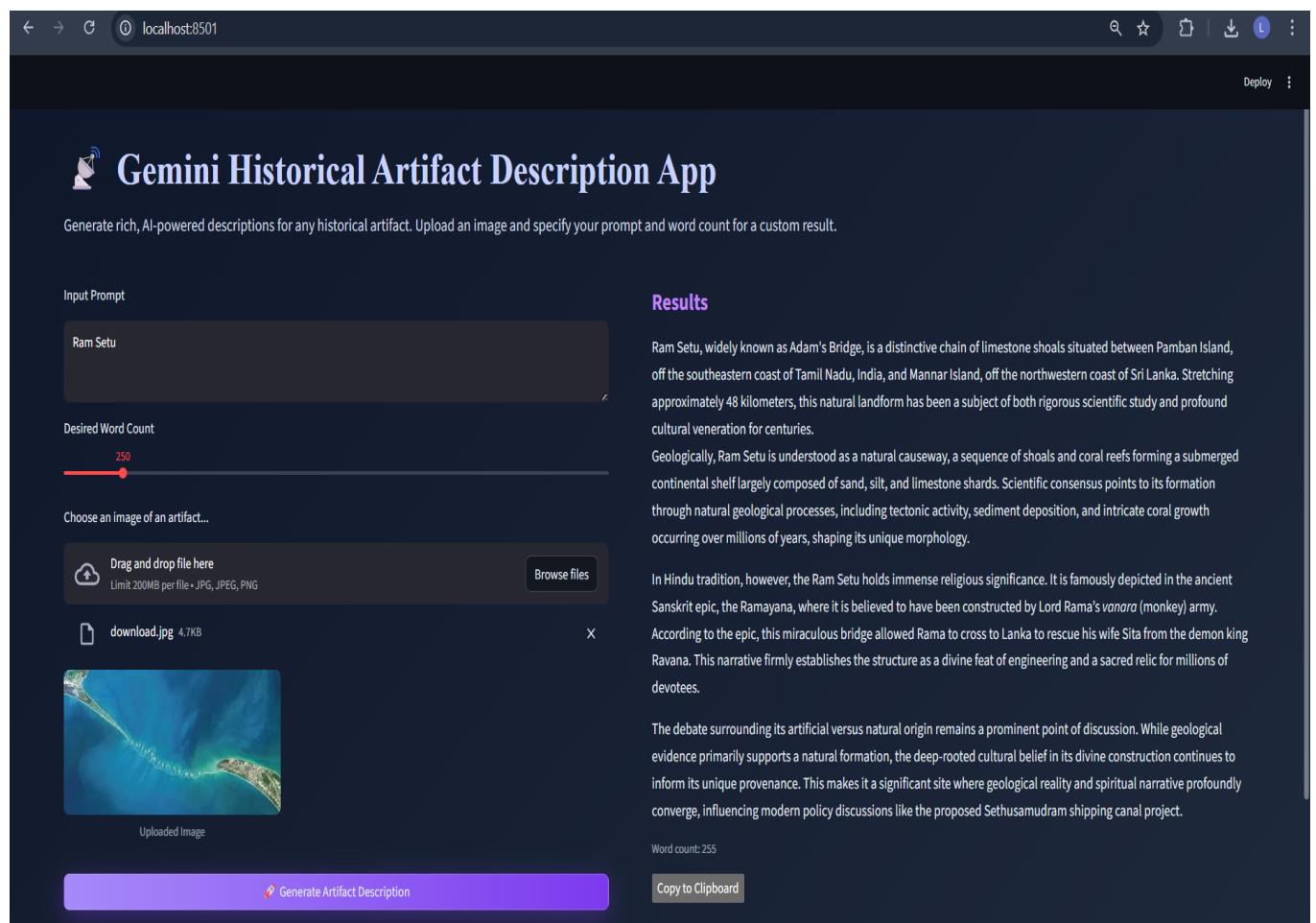
Requirements Specification



Function for image setup

```
# -----
# Image Setup
# -----  
  
def input_image_setup(uploaded_file):  
    if uploaded_file is not None:  
        bytes_data = uploaded_file.getvalue()  
        return [{  
            "mime_type": uploaded_file.type,  
            "data": bytes_data  
        }]  
    return None  
  
# -----  
# Gemini API Call  
# -----  
  
def get_gemini_response(input_text, image_data, prompt, api_key):  
    genai.configure(api_key=api_key)  
    model_name = os.getenv("GEMINI_MODEL", "gemini-pro")
```

Output:



The screenshot shows a web application titled "Gemini Historical Artifact Description App". The interface is dark-themed. On the left, there's a form with fields for "Input Prompt" (containing "Ram Setu"), "Desired Word Count" (set to 250), and a file upload section where "download.jpg" (4.7KB) has been uploaded. An "Uploaded Image" preview shows a coastal landscape with a bridge. On the right, under the heading "Results", there are two sections of text. The first section describes Ram Setu as a limestone shoal between Pamban Island and Mannar Island. The second section discusses its significance in Hindu tradition, its geological formation, and its role in the Ramayana. At the bottom, there are buttons for "Generate Artifact Description" and "Copy to Clipboard".

localhost:8501

Gemini Historical Artifact Description App

Generate rich, AI-powered descriptions for any historical artifact. Upload an image and specify your prompt and word count for a custom result.

Input Prompt

Ram Setu

Desired Word Count

250

Choose an image of an artifact...

Drag and drop file here
Limit 200MB per file • JPG, JPEG, PNG

download.jpg 4.7KB

Uploaded Image

Results

Ram Setu, widely known as Adam's Bridge, is a distinctive chain of limestone shoals situated between Pamban Island, off the southeastern coast of Tamil Nadu, India, and Mannar Island, off the northwestern coast of Sri Lanka. Stretching approximately 48 kilometers, this natural landform has been a subject of both rigorous scientific study and profound cultural veneration for centuries. Geologically, Ram Setu is understood as a natural causeway, a sequence of shoals and coral reefs forming a submerged continental shelf largely composed of sand, silt, and limestone shards. Scientific consensus points to its formation through natural geological processes, including tectonic activity, sediment deposition, and intricate coral growth occurring over millions of years, shaping its unique morphology.

In Hindu tradition, however, the Ram Setu holds immense religious significance. It is famously depicted in the ancient Sanskrit epic, the Ramayana, where it is believed to have been constructed by Lord Rama's *vanara* (monkey) army. According to the epic, this miraculous bridge allowed Rama to cross to Lanka to rescue his wife Sita from the demon king Ravana. This narrative firmly establishes the structure as a divine feat of engineering and a sacred relic for millions of devotees.

The debate surrounding its artificial versus natural origin remains a prominent point of discussion. While geological evidence primarily supports a natural formation, the deep-rooted cultural belief in its divine construction continues to inform its unique provenance. This makes it a significant site where geological reality and spiritual narrative profoundly converge, influencing modern policy discussions like the proposed Sethusamudram shipping canal project.

Word count: 255

Generate Artifact Description

Copy to Clipboard

Demo Video:

https://drive.google.com/file/d/1iJ_tFQAd2gwgdAD7egJvXxdVfOQpZS5G/view?usp=sharing

GitHub Link:

[BolluSnigdha/Gemini-Historical-Artifact-Description-App](https://github.com/BolluSnigdha/Gemini-Historical-Artifact-Description-App)