**AI-Powered Presentation Creator Documentation**

**Overview**

The AI-Powered Presentation Creator is a web application that allows users to generate PowerPoint presentations based on their input topics. The application uses the Google Gemini AI model to create content for the slides, which is then formatted and converted into a downloadable PowerPoint file.

**Key Features**

* **Title and Topics Input**: Users can input the title and topics for the presentation.
* **AI-Generated Content**: The Gemini AI model generates the content for the slides based on the provided title and topics.
* **Slide Formatting**: The content is split into individual slides, formatted, and cleaned up (e.g., removing unnecessary formatting).
* **Downloadable PowerPoint**: The generated slides are compiled into a PowerPoint presentation that users can download.

**Technologies Used**

* **Streamlit**: Framework for creating the interactive user interface.
* **Google Gemini API**: For generating the presentation content based on user input.
* **python-pptx**: To create and save the PowerPoint presentation.
* **dotenv**: Used to securely load the Google API key from an environment file.
* **Regular Expressions**: To split and format the slide content properly.

**How It Works**

1. **User Input**: The user enters the title and topics for the presentation.
2. **Content Generation**: The application sends the input data to the Gemini API, which generates content for each slide.
3. **Slide Creation**: The content is split into slides and formatted into titles and bullet points.
4. **Download**: The formatted slides are converted into a PowerPoint file, which is available for download.

**Error Handling**

* **Missing API Key**: If the Google Gemini API key is not provided in the environment file, an error message will be shown.
* **No Topics Entered**: If the user does not provide any topics, an error message will prompt them to enter at least one topic.
* **API Errors**: If there is any issue with generating the content from the Gemini API, an error message will be displayed to the user.

**Steps to Use**

1. **Set Up the API Key**: Ensure that the Google API key is set up in the .env file.
2. **Run the Application**: Launch the Streamlit app on your local machine.
3. **Enter Title and Topics**: Input a title and topics for your presentation.
4. **Generate and Review**: Click the "Generate Presentation" button and review the generated slides.
5. **Download**: Download the PowerPoint presentation when ready.

**Limitations**

* The generated content is text-based, and more complex slide formatting such as images, tables, or charts is not supported at this time.
* There are no advanced options for customizing the layout of individual slides