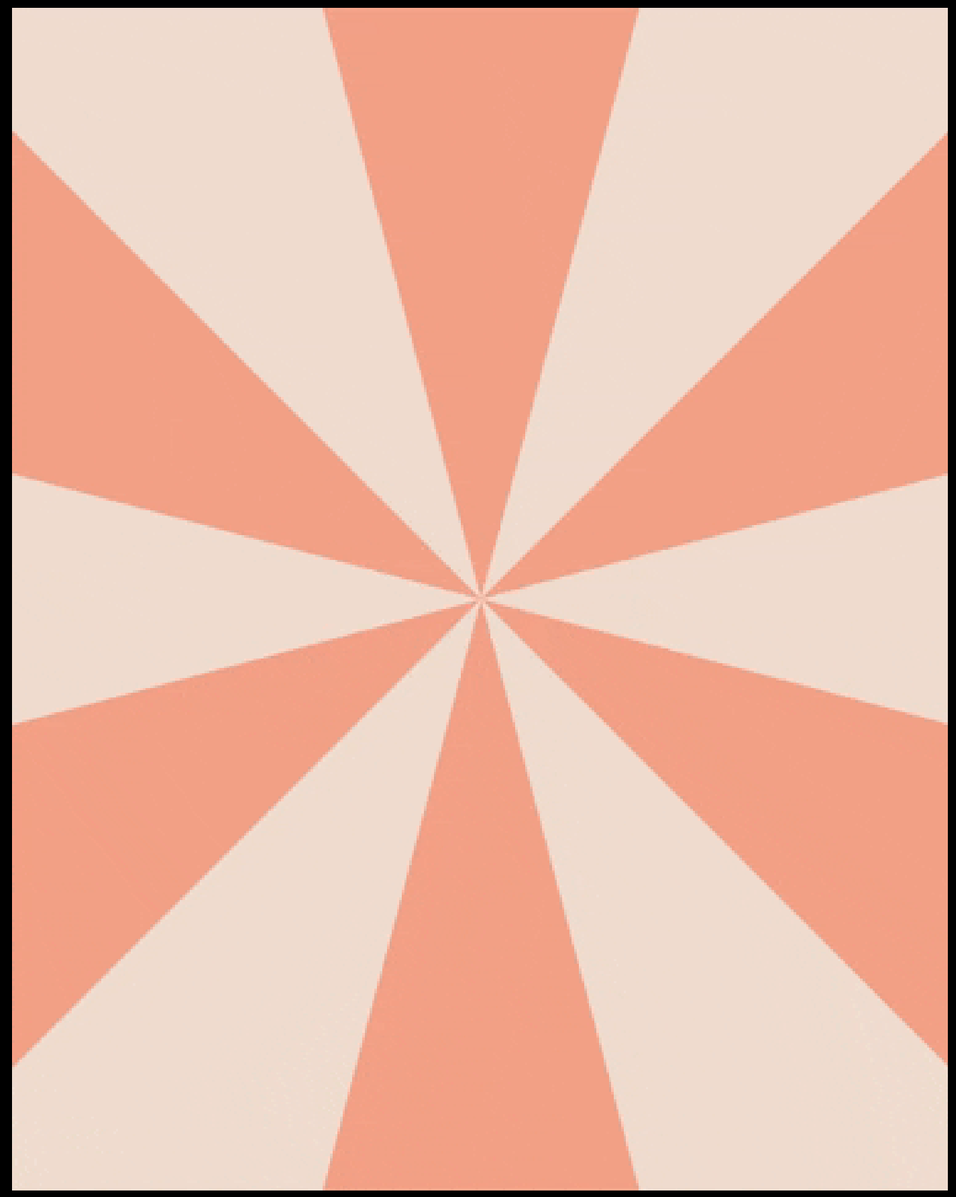
Elyas Binothman • Radical AI

GEMINI QUIZIFY QUIZ GENERATOR

Introduction

Welcome, everyone.

This project focuses on generating quiz questions from user-uploaded documents.
I'll cover the approach, key features, and results.



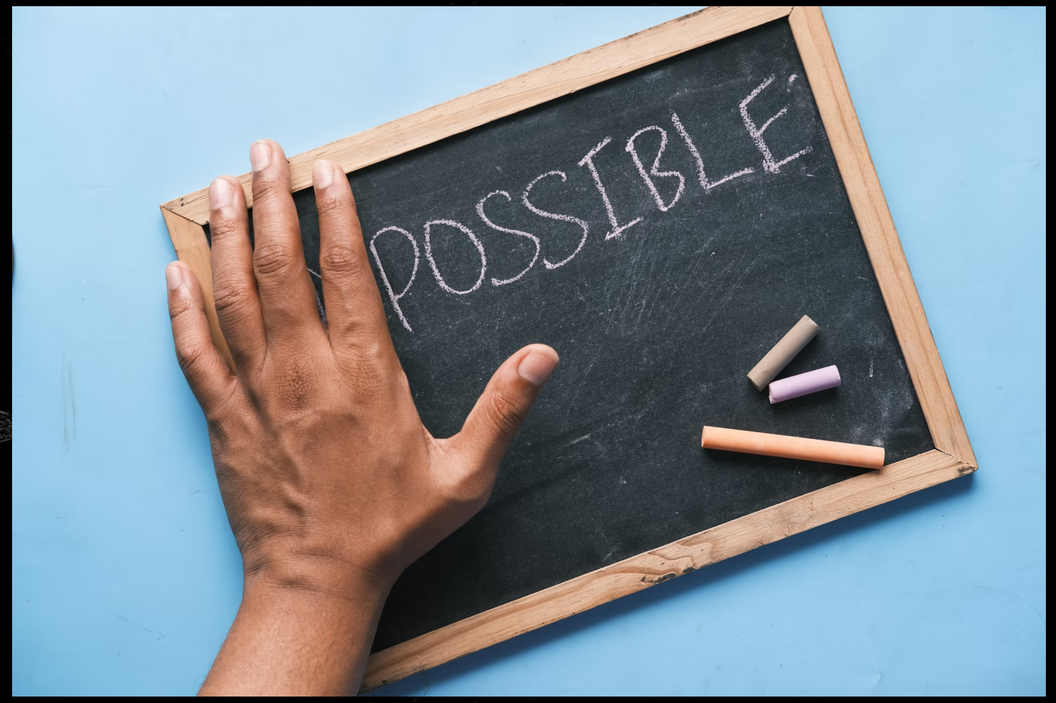
The Challenge

Application Layout Challenges:

- Designing an intuitive user interface with multiple pages (home, quiz, results).
- Ensuring smooth navigation between pages.
- Learning and integrating the Streamlit library for effective UI design.

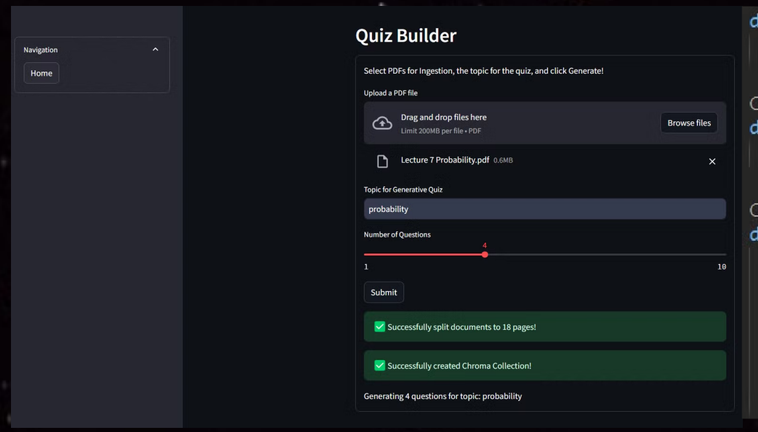
Adding Results Page:

- Displaying quiz results in a clear and user-friendly manner.
- Calculating and showing correct and incorrect answers with explanations.
- Challenge of learning Streamlit for dynamic updates and interactivity.



Application layout

1. **Multi-Page Navigation:**
- **Pages:**
  - **Home:** Users upload documents and specify quiz parameters.
  - **Quiz:** Users answer the generated quiz questions.
  - **results:** Users review their results and explanations for each question.
- **Benefit:** Ensures a smooth and intuitive workflow from document upload to quiz completion.
2. **Easy Navigation:**
- **Sidebar Navigation:**
  - **Description:** A sidebar with navigation buttons for easy access to different application sections.
  - **Buttons:** Home, Next Question, Previous question and Results (only if the user answered all of the questions).
- **Benefit:** Allows users to easily navigate between pages and keep track of their progress.
3. **Dynamic Updates:**
- **Real-Time Interaction:**
  - **Description:** The application dynamically updates based on user inputs and actions.
  - **Examples:** Generating questions after document upload, displaying results after quiz completion.




```python
def next_page():
    st.session_state.page += 1

Codeium: Refactor | Explain | Generate Docstring | ×
def previous_page():
    st.session_state.page -= 1

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def go_home():
    st.session_state.page = 0
    st.session_state['question_bank'] = []
    st.session_state['display_quiz'] = False
    st.session_state['question_index'] = 0
    st.session_state.correct_answers = 0
    st.session_state.answers = {}
```
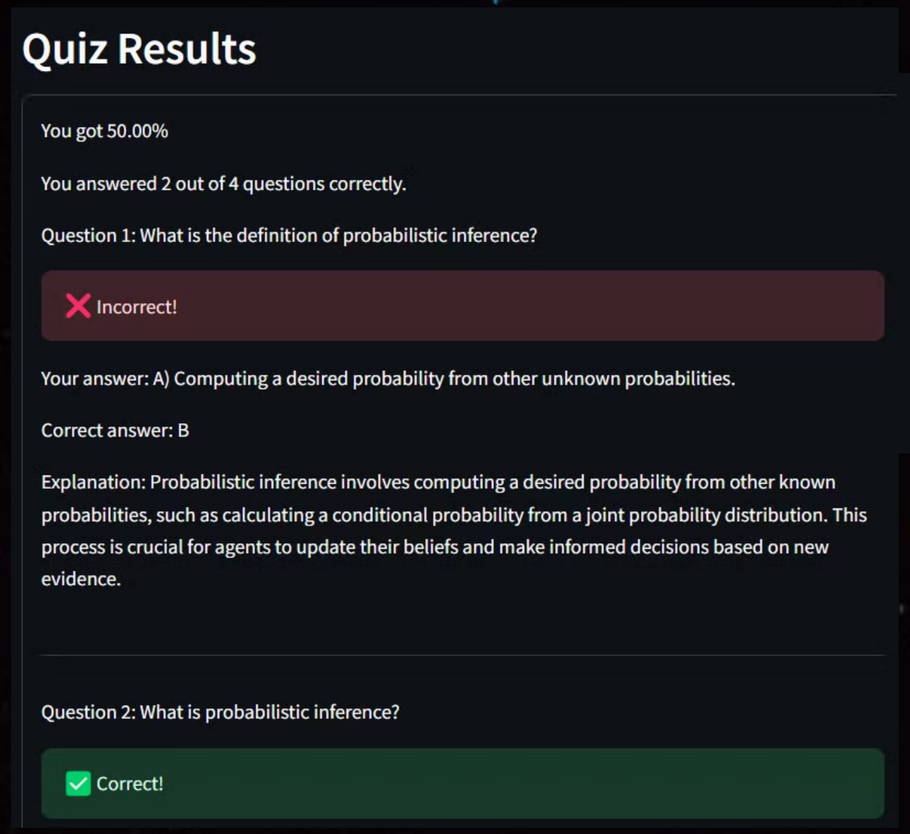
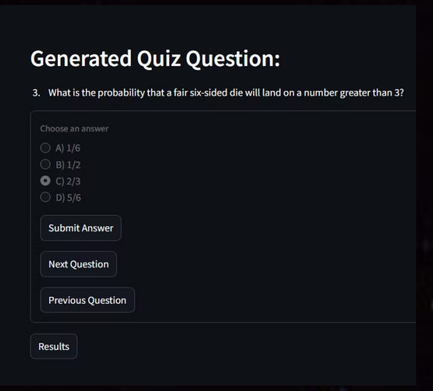





Approach

1. User Input:
- Users upload their PDF documents through an intuitive interface.

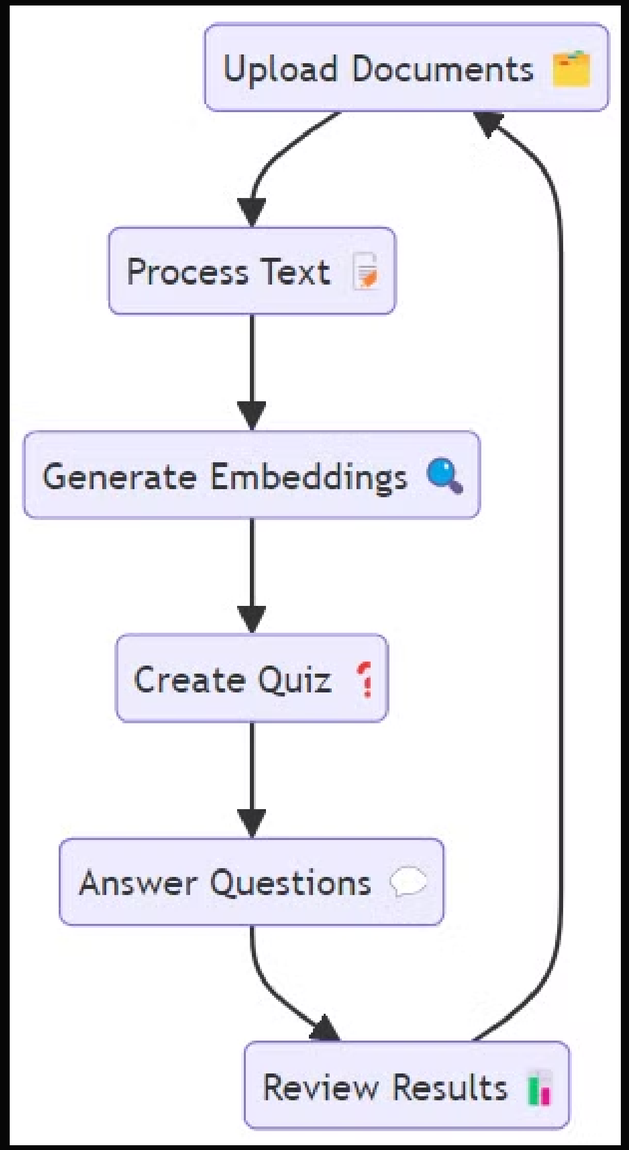
2. Document Processing:
- The system extracts text from the uploaded PDFs for analysis.

3. Embedding Generation:
- Extracted text is converted into embeddings to understand the content.

4. Quiz Generation:
- Based on the topic and number of questions specified by the user, the system generates quiz questions.

5. User Interaction:
- Users interact with the generated quiz by answering the questions.

6. Review and Results:
- **New Feature:** After answering all questions, there will be a results page allowing users to review their performance.



Key features

Content:

1. **Automated Quiz Generation:**
- **Description:** Streamlined process that automatically generates quiz questions from uploaded documents.

2. **User-Friendly Interface:**
- **Description:** Intuitive and easy-to-use interface for uploading documents, specifying quiz parameters, and navigating between quiz pages.

3. **Locking answers:**
- **Description:** After the user submits the answer the question is then locked and the cannot change their answer and can only review it on the results page.

4. **Result Button and Detailed Results Page:**
- **Description:** The result button appearing after answering the questions which will show a comprehensive results page that shows the percentage of correct answers, detailed explanations, and overall performance.

```
if 'submitted_answers' not in st.session_state:
    st.session_state.submitted_answers = 0
```

```
if st.form_submit_button("Submit Answer") and answer is not None:
    st.session_state.answers[st.session_state["question_index"]] = answer
    st.session_state.submitted_answers += 1
```

```
if st.session_state.submitted_answers >= len(st.session_state['question_bank']):
    if st.button("Results"):
        next_page()
        st.rerun()
```

DEMONSTRATION

Pitch

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