AIChatbotWebsite

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CS4624 - Multimedia, Hypertext, and Information Access, Dr. Edward A. Fox
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Outline

1. Introduction
2. Models/Figures
3. Final Pages
4. General Information
5. Demo
6. Q&A
INTRODUCTION
Background

- Episodic Future Thinking (EFT)
- AI Assisted Healthcare
- Scalability and Cost-Effectiveness
Problem

- No User Interface
- No Usability Support
- No Data Collection
Motivation

- Create Secure Website
- Guide User Through Process
- Advance Research in AI and Health
Client

- Sareh Ahmadi, Ph.D. Student, Department of CS
- Dr. Edward Fox, Advisor
- Field of Artificial Intelligence
Summarized UML

- React
- Qualtrics
- Quart
- GPT-4
- Anonymizer
Frontend

Start

Qualtrics/Login → Home → Usability Survey → Qualtrics

Continuous

Header

Task Stepper

Finished
## Backend

<table>
<thead>
<tr>
<th>User</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>id</td>
<td>id</td>
</tr>
<tr>
<td>password_hash</td>
<td>String (primary key)</td>
</tr>
<tr>
<td>survey_id</td>
<td>String</td>
</tr>
<tr>
<td>messages</td>
<td>List[Message]</td>
</tr>
<tr>
<td>eft_cues</td>
<td>List[Cue]</td>
</tr>
<tr>
<td>usability_assessment</td>
<td>String</td>
</tr>
<tr>
<td></td>
<td>id</td>
</tr>
<tr>
<td></td>
<td>user_id</td>
</tr>
<tr>
<td></td>
<td>content</td>
</tr>
<tr>
<td></td>
<td>role</td>
</tr>
<tr>
<td></td>
<td>timestamp</td>
</tr>
</tbody>
</table>

- User table:
  - `id`: String (primary key)
  - `password_hash`: String
  - `survey_id`: String
  - `messages`: List[Message]
  - `eft_cues`: List[Cue]
  - `usability_assessment`: String

- Message table:
  - `id`: String (primary key)
  - `user_id`: String (foreign key)
  - `content`: String
  - `role`: String
  - `timestamp`: Integer
## Backend

<table>
<thead>
<tr>
<th><strong>Cue</strong></th>
<th><strong>Event</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>id</td>
<td>id</td>
</tr>
<tr>
<td>user_id</td>
<td>user_id</td>
</tr>
<tr>
<td>content</td>
<td>action</td>
</tr>
<tr>
<td>timeframe</td>
<td>timestamp</td>
</tr>
</tbody>
</table>

- **id**: String (primary key)
- **user_id**: String (foreign key)
- **content**: String
- **timeframe**: String
- **id**: String (primary key)
- **user_id**: String (foreign key)
- **action**: String
- **timestamp**: Datetime
Login
Press START to Begin
Home - Chatbot

EFT Chatbot

Complete the steps:

1. Login
2. Generate EFTs
   Interact with the chatbot to generate your EFT Cues. Create 7 timeframes to move on.
3. Usability Survey
4. Return to Qualtrics
   Last step

How you are feeling

###

You

I am with my grandparents in the city watching a show. We are extremely relaxed while we watch a great performance.

EFTeacher

In about six months, I am in the bustling heart of New York City, experiencing the magic of a Broadway show alongside my grandparents. The three of us are seated comfortably in the grand theatre, absorbed in the captivating performance on stage. Surrounded by the rich culture and history of Broadway, we find ourselves completely relaxed and immensely enjoying the artistic expression unfolding before our eyes. This special outing with my grandparents is a cherished moment, allowing us to bond over our shared love for theatre in one of the most iconic settings in the world.

Now rate your event on a scale from 1 to 5, where 1 means "Not at All" and 5 means "Very Much" for the following questions.

"In about a month, I am sitting on the warm, sandy shores of St. Thomas Island, accompanied by my family and friends. We are all together, enjoying the comfort of each other's company, basking under the golden sun. The gentle sound of waves crashing and the cool sea breeze add to our perfect day. I am feeling incredibly joyful and grateful to be surrounded by such wonderful people in this beautiful place. It's moments like these that truly enrich life."
# Usability Assessment

Please answer the following questions to the best of your ability using the Likert scale 1-5.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
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<tr>
<td>3</td>
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<td>4</td>
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<tr>
<td>5</td>
<td></td>
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</tr>
</tbody>
</table>

1. I think that I would like to use this system frequently.
   - [ ] 1
   - [ ] 2
   - [ ] 3
   - [ ] 4
   - [ ] 5

2. I found the system unnecessarily complex.
   - [ ] 1
   - [ ] 2
   - [ ] 3
   - [ ] 4
   - [ ] 5

3. I thought the system was easy to use.
   - [ ] 1
   - [ ] 2
   - [ ] 3
   - [ ] 4
   - [ ] 5

4. I think that I would need the support of a...
   - [ ] 1
   - [ ] 2
   - [ ] 3
   - [ ] 4
   - [ ] 5
Thank you for participating in this session!

Please log in to finish your session.

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Sign up – Development Only
GENERAL INFORMATION
Timeline

**Jan/Feb**
- Environment Set Up
- Report & Presentation
- Ollama Model

**March**
- Docker Image to Server
- Presentation 2
- Qualtrics Routing

**April/May**
- OpenAI
- Final Report & Presentation
- Finalize Production
Issues Along the Way

- Connecting to Qualtrics
- Using Previous Code Base
- Getting Access to Virtual Machine
- Getting Access to Azure
Future Work

- Testing with Real Users
- Password Recovery
Acknowledgements

- Sareh Ahmadi – Client
- Satvik Chekuri – GTA
- Edward Fox – Professor

References

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   https://vtechworks.lib.vt.edu/items/d158c9dd-4068-4f26-8541-0b6678e1f139
Q&A