Mobile Parenting Website

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Outline

● Project Overview
● Website Architecture
● Requirements
● Database Schema
● Frontend Walkthrough
● Challenges
● Future Work
● Acknowledgements
● References
Project Overview

- Goal: create a web application for teaching parents
- Parents will complete weekly adventures
- Adventures have content and prompts for the user to answer
  - Adventures must be dynamically generated
  - User responses must be saved for their future reference
  - Adventures must be time-locked
Website Architecture

Linux
Operating System Layer

Apache
Web Server Layer

MySQL
Database Layer

PHP/Perl/Python
Scripting Layer

docker Compose
Website Architecture

**Laravel**

- **Model**
  - Defines data structure
  - e.g. updates application to reflect added item

- **View**
  - Defines display (UI)
  - e.g. user clicks ‘add to cart’

- **Controller**
  - Contains control logic
  - e.g. receives update from view then notifies model to ‘add item’

- Updates
  - e.g. list item to show added item

- Sends input from user

- Sometimes updates directly

- Manipulates
Functional Requirements

- Seamlessly transfer existing features from the Treks mobile app to the new web platform.
- Increase interactivity and accessibility, adding multimedia content where useful.
- Implement strong user registration and authentication policies to ensure data security and user privacy.
- Offer user profiles that can be personalized, allowing parents and teachers to track their progress and preferences.
Functional Requirements

- Develop interactive tools and features such as behavior tracking systems, interactive quizzes, and educational games to better engage users.
- Include a community forum or discussion board for users to share experiences, tips and support.
- Ensure that the platform is easy to navigate and that the content is easily accessible to technically savvy users.
- Use a policy that works for access to different devices and screen sizes
Passive Requirements

- The platform should load properly and process user requests simultaneously without significant delay.
- Ensure uptime and reliability, with minimal downtime for repairs or upgrades.
- Design the system to be scalable and not compromise performance with the growing number of users and resources.
- Ensure that the platform architecture supports easy updates and integration of new features.
- Implement industry standard security measures to protect user data and prevent unauthorized access.
- Regularly update the platform and check for security vulnerabilities.
User Submission Backend
## Sample Data

### Options Table

<table>
<thead>
<tr>
<th>id</th>
<th>prompt_id</th>
<th>order</th>
<th>text</th>
<th>is_correct</th>
<th>correct_answer_text</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>0</td>
<td>A</td>
<td>0</td>
<td>NULL</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>0</td>
<td>B</td>
<td>1</td>
<td>Is the correct answer</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>0</td>
<td>Red</td>
<td>1</td>
<td>Red is a warm color</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>0</td>
<td>Yellow</td>
<td>1</td>
<td>Yellow is a warm color</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>0</td>
<td>Green</td>
<td>0</td>
<td>NULL</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>0</td>
<td>Action</td>
<td>0</td>
<td>NULL</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>0</td>
<td>Drama</td>
<td>0</td>
<td>NULL</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>0</td>
<td>Comedy</td>
<td>0</td>
<td>NULL</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
<td>0</td>
<td>Horror</td>
<td>0</td>
<td>NULL</td>
</tr>
<tr>
<td>10</td>
<td>4</td>
<td>0</td>
<td>Mystery</td>
<td>0</td>
<td>NULL</td>
</tr>
<tr>
<td>11</td>
<td>4</td>
<td>0</td>
<td>Thriller</td>
<td>0</td>
<td>NULL</td>
</tr>
<tr>
<td>12</td>
<td>5</td>
<td>0</td>
<td>Mary Hits Fred</td>
<td>0</td>
<td>NULL</td>
</tr>
<tr>
<td>13</td>
<td>5</td>
<td>0</td>
<td>Fred Takes Mary's Toy</td>
<td>1</td>
<td>The correct answer is: Fred takes Mary's toy.</td>
</tr>
<tr>
<td>14</td>
<td>6</td>
<td>0</td>
<td>Mary gets her toy</td>
<td>0</td>
<td>NULL</td>
</tr>
<tr>
<td>15</td>
<td>6</td>
<td>0</td>
<td>Mary hits Fred</td>
<td>1</td>
<td>The correct answer is: Mary hits Fred.</td>
</tr>
<tr>
<td>16</td>
<td>7</td>
<td>0</td>
<td>Mary gets her toy</td>
<td>1</td>
<td>The correct answer is: Mary gets her toy back.</td>
</tr>
<tr>
<td>17</td>
<td>7</td>
<td>0</td>
<td>Mary hits Fred</td>
<td>0</td>
<td>NULL</td>
</tr>
</tbody>
</table>

### Prompts Table

<table>
<thead>
<tr>
<th>id</th>
<th>slide_id</th>
<th>text</th>
<th>type</th>
<th>order</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Are you ready to start?</td>
<td>FREE_RESPONSE</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>Select A or B</td>
<td>MULTIPLE_CHOICE</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>Select the warm colors</td>
<td>FREE_SELECT</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>Select your favorite movie genres</td>
<td>FREE_SELECT</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>What is the antecedent in this example: Mary hits ...</td>
<td>MULTIPLE_CHOICE</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>What is the behavior in this example: Mary hits Fr...</td>
<td>MULTIPLE_CHOICE</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>What is the consequence in this example: After Mar...</td>
<td>MULTIPLE_CHOICE</td>
<td>2</td>
</tr>
</tbody>
</table>

### User Responses Table

<table>
<thead>
<tr>
<th>id</th>
<th>user_id</th>
<th>prompt_id</th>
<th>prompt_option_id</th>
<th>text</th>
<th>created_at</th>
<th>updated_at</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>12</td>
<td>2024-03-18 16:30:07</td>
<td>2024-03-18 16:30:07</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2024-03-18 16:41:25</td>
<td>2024-03-18 16:41:25</td>
</tr>
</tbody>
</table>
User Authentication

Forgot your password? No problem. Just let us know your email address and we will email you a password reset link that will allow you to choose a new one.
Welcome to Support BRANCH, Test Admin

Welcome to Supporting Behavior Regulation and Navigating Challenging Behaviors at Home.

During Support BRANCH you’ll be able to build your confidence as a parent and learn strategies to help manage and reduce your child’s behavior problems. This program is based on principles of Behavior Modification and is intended to supplement professional consultation or therapy in order to address child behavior problems such as hyperactivity, tantrums, non-compliance, aggression, and resistance to change.

Support BRANCH consists of four Adventures that will be completed as you climb up the tree of parent support. Each adventure is meant to be completed over a single week, with five tasks in each adventure. If you need, you can complete multiple tasks within an adventure on the same day, though we recommend doing one per day. As you complete the different adventures, you will earn badges along the way. We look forward to supporting you through this journey!

To help motivate you to put in the hard work of completing this Support BRANCH program, we want you to identify a reward you can have at the end of the program. This can be going to get ice cream, getting your nails done, going to the driving range, going to see a movie, or whatever would be relaxing and rewarding for you! Record what your reward(s) will be here:

Set Personal Reward  Set Personal Reward

How SEVERE have your child’s behaviors been in the last 24 hours?

☐ Not very
☐ A bit
☐ Sort of
Home Page with Inactive User Pop-Up
Progress Pop-Up (when gray tree is clicked)
Overview Pop-Up (when banner is clicked)

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Adventure Page
Adventure Badge Pop-Up (click on adventure)
Principles of Behavior: Understanding the Family Cycle

During this first adventure, you'll be working to identify treatment goals, discuss functions of behavior, analyze your child's behaviors, and understand antecedents to behavioral problems.

Challenging Child Behaviors and the Family Cycle

This video introduces the negative family cycle that often occurs when children display problematic behaviors and some of the strategies we will cover during Support BRANCH to help overcome these challenges.

Which of your child's difficult behaviors do you want to focus on in this journey?

Submit: 0/2
Adventure Page after Explore Completion
Account Settings
Admin Dashboard
Challenges

- Docker - Performance issues handling Linux containers
- Drupal - Wasted a lot of time
- Alpine JS - Implemented late
Future Work & Stretch Goals

- Email notification system
- Completion pop-ups
- FAQ / User Guide
Acknowledgements

Client
- Rosanna Breaux, Director of Child Study Center and CALMER Lab
- Benz Huynh (Consultant)
- Stephanie Pham (Graduate Student)

Professor
- Dr. Edward A. Fox
References


● Laravel Documentation: https://laravel.com/docs/11.x

● Alpine JS Documentation: https://alpinejs.dev/

● Tailwind Documentation: https://tailwindcss.com/