Mobile Parenting Website

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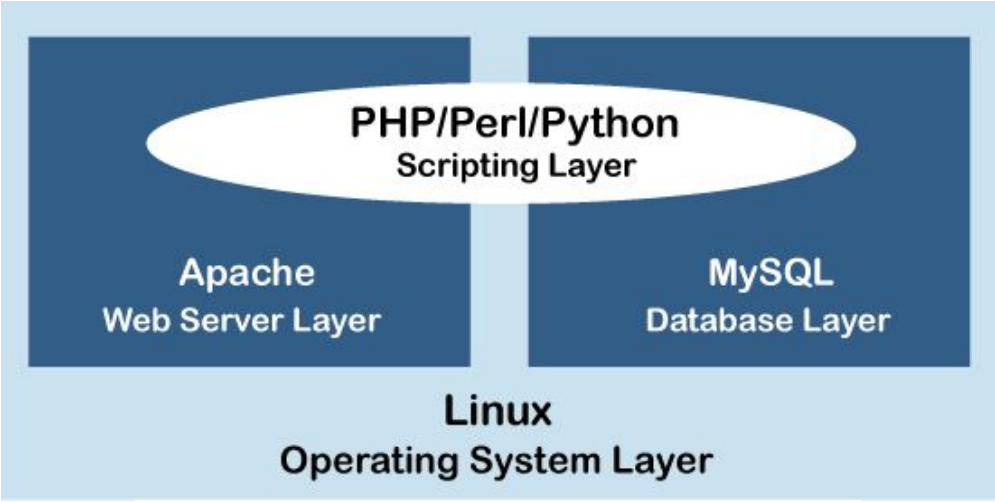
Outline

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

Project Overview

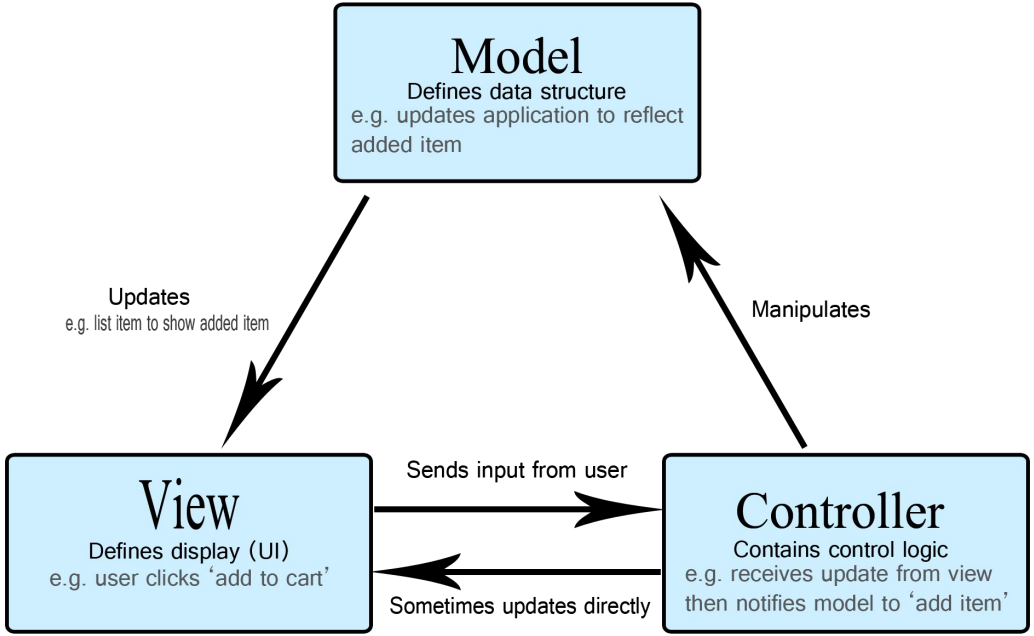
- Goal: create a web application for teaching parents
- Parents will complete weekly adventures
- Adventures have content and prompts for the user to answer
  - Adventures must be dynamically generated
  - User responses must be saved for their future reference
  - Adventures must be time-locked

Website Architecture



docker
Compose

Website Architecture



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.

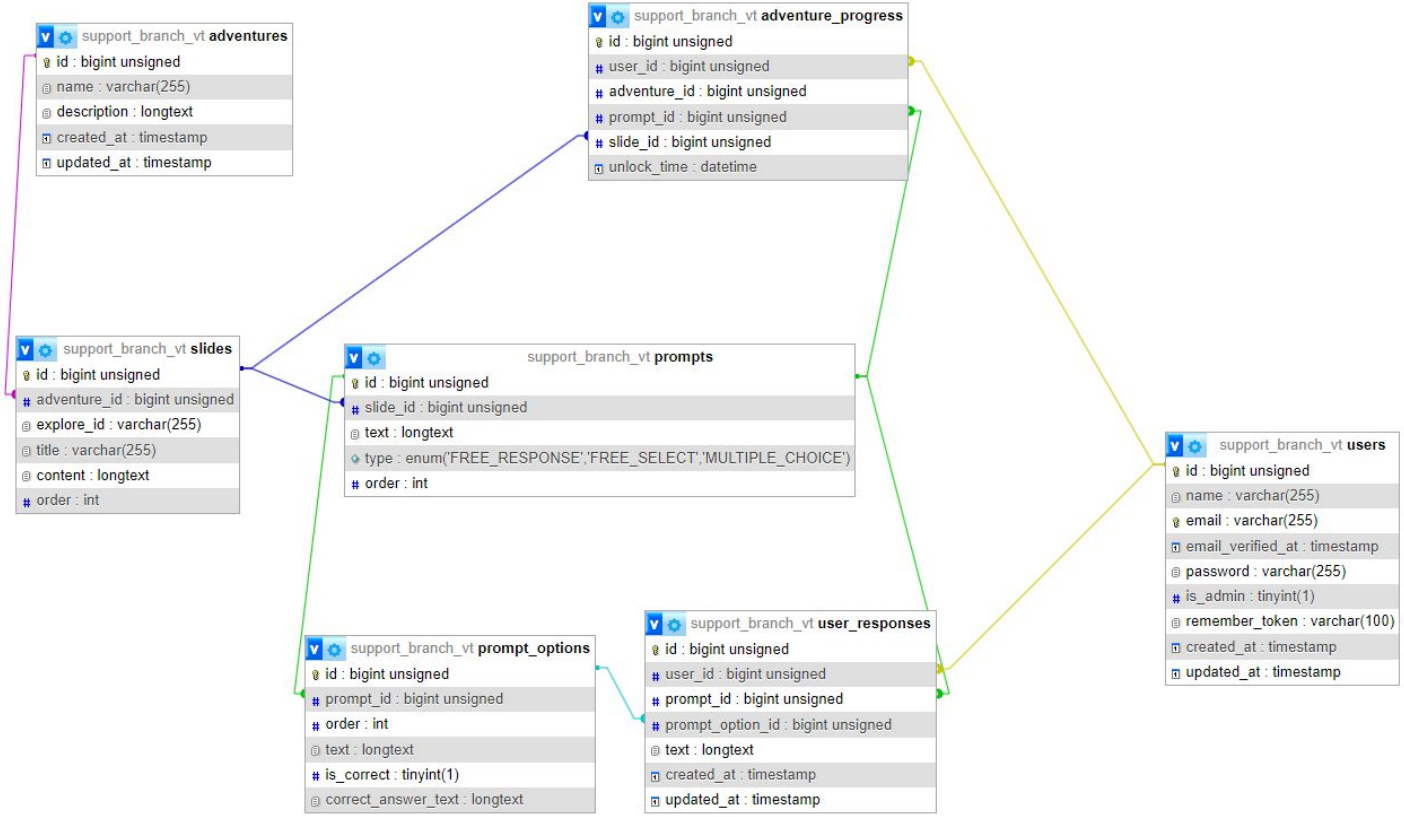
Functional Requirements

- 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

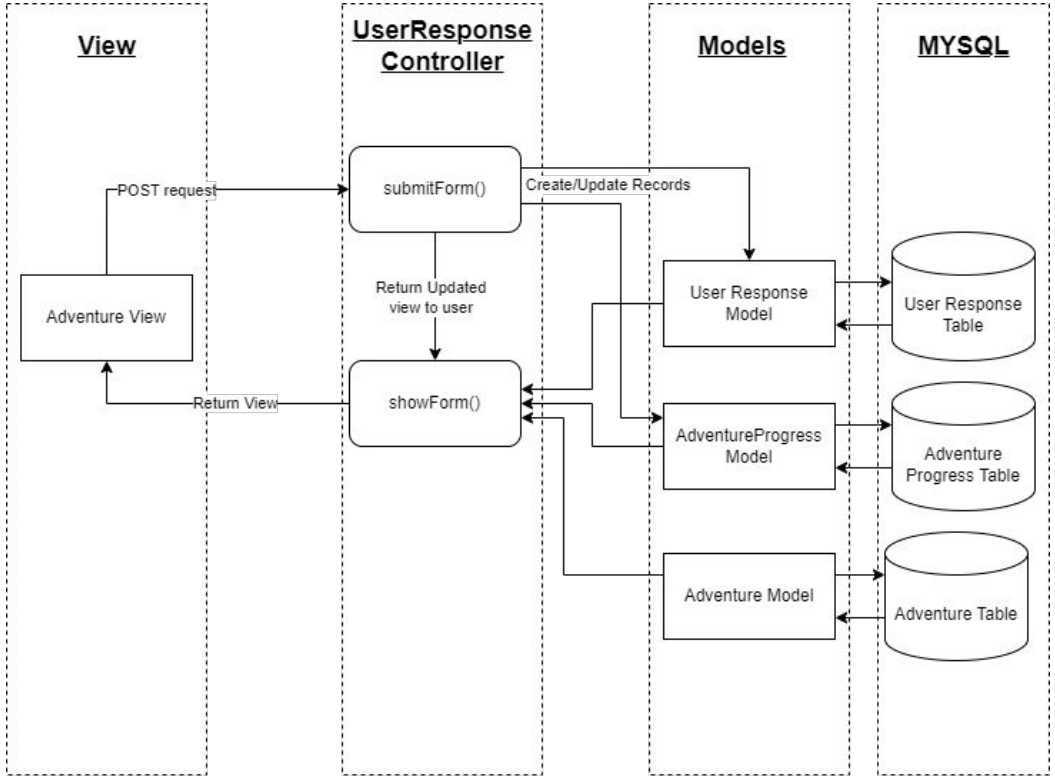
Passive Requirements

- 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.

Database Schema



User Submission Backend



Sample Data

Options Table

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

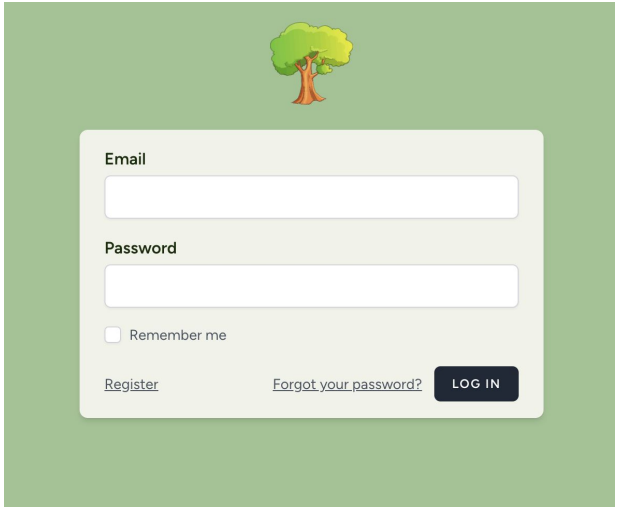
Prompts Table

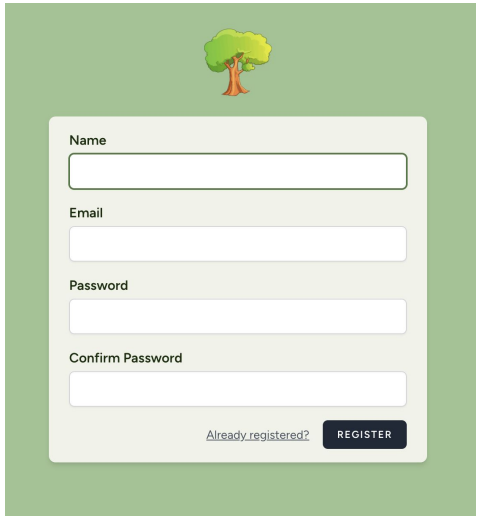
id	slide_id	text	type	order
1	1	Are you ready to start?	FREE_RESPONSE	0
2	1	Select A or B	MULTIPLE_CHOICE	1
3	1	Select the warm colors	FREE_SELECT	2
4	1	Select your favorite movie genres	FREE_SELECT	3
5	2	What is the antecedent in this example: Mary hits ...	MULTIPLE_CHOICE	0
6	2	What is the behavior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

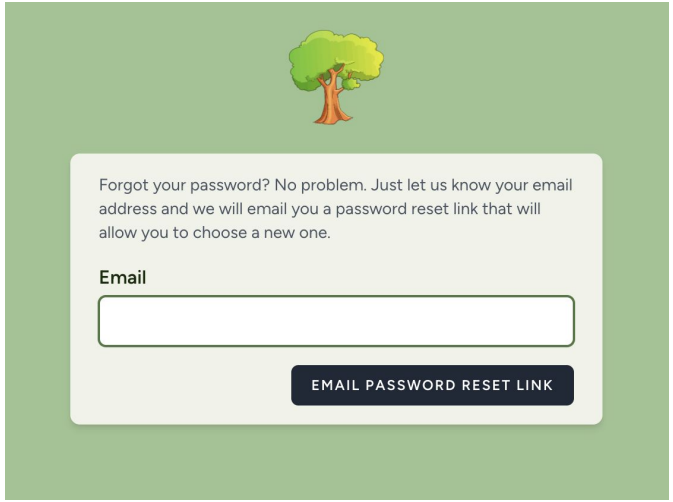
User Responses Table

id	user_id	prompt_id	prompt_option_id	text	created_at	updated_at
1	1	5	12	12	2024-03-18 16:30:07	2024-03-18 16:30:07
2	1	2	1	1	2024-03-18 16:41:25	2024-03-18 16:41:25

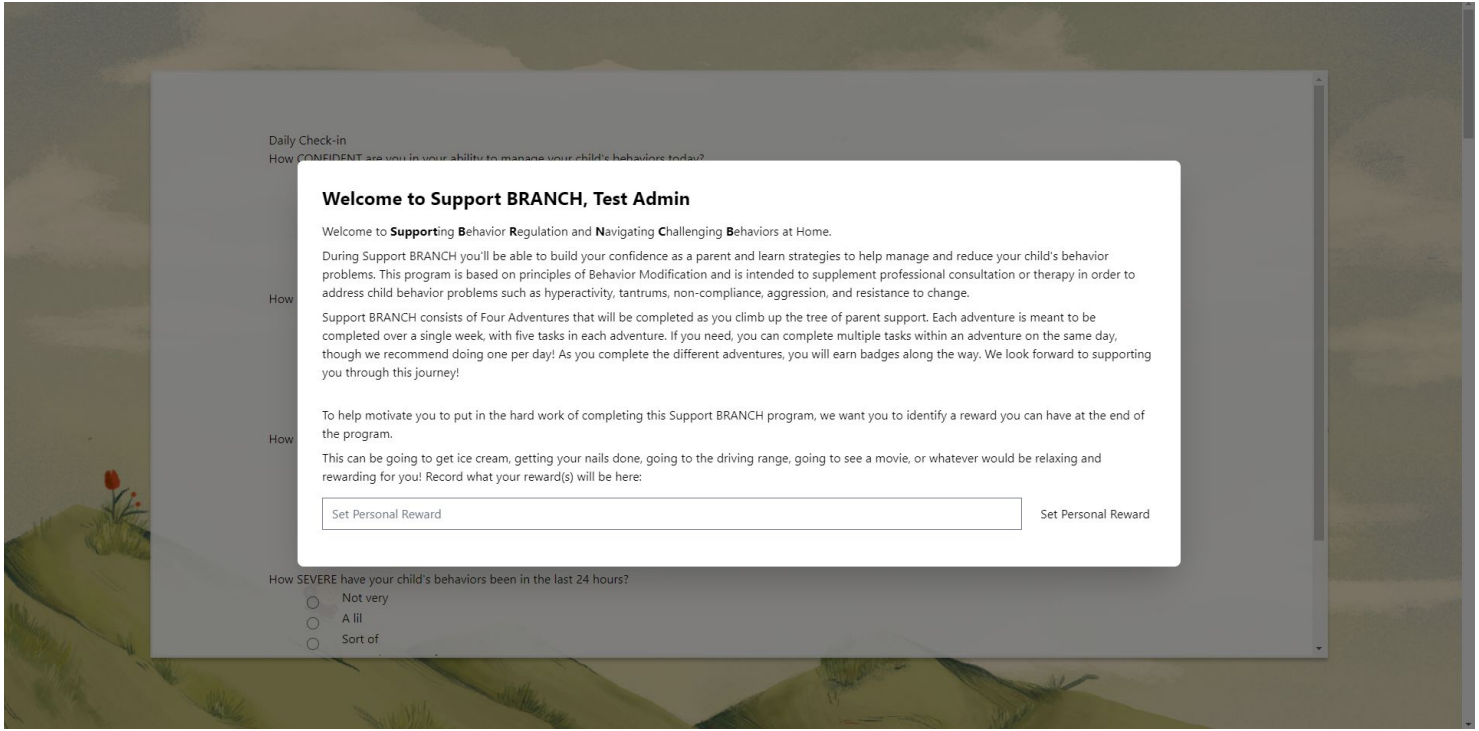
User Authentication



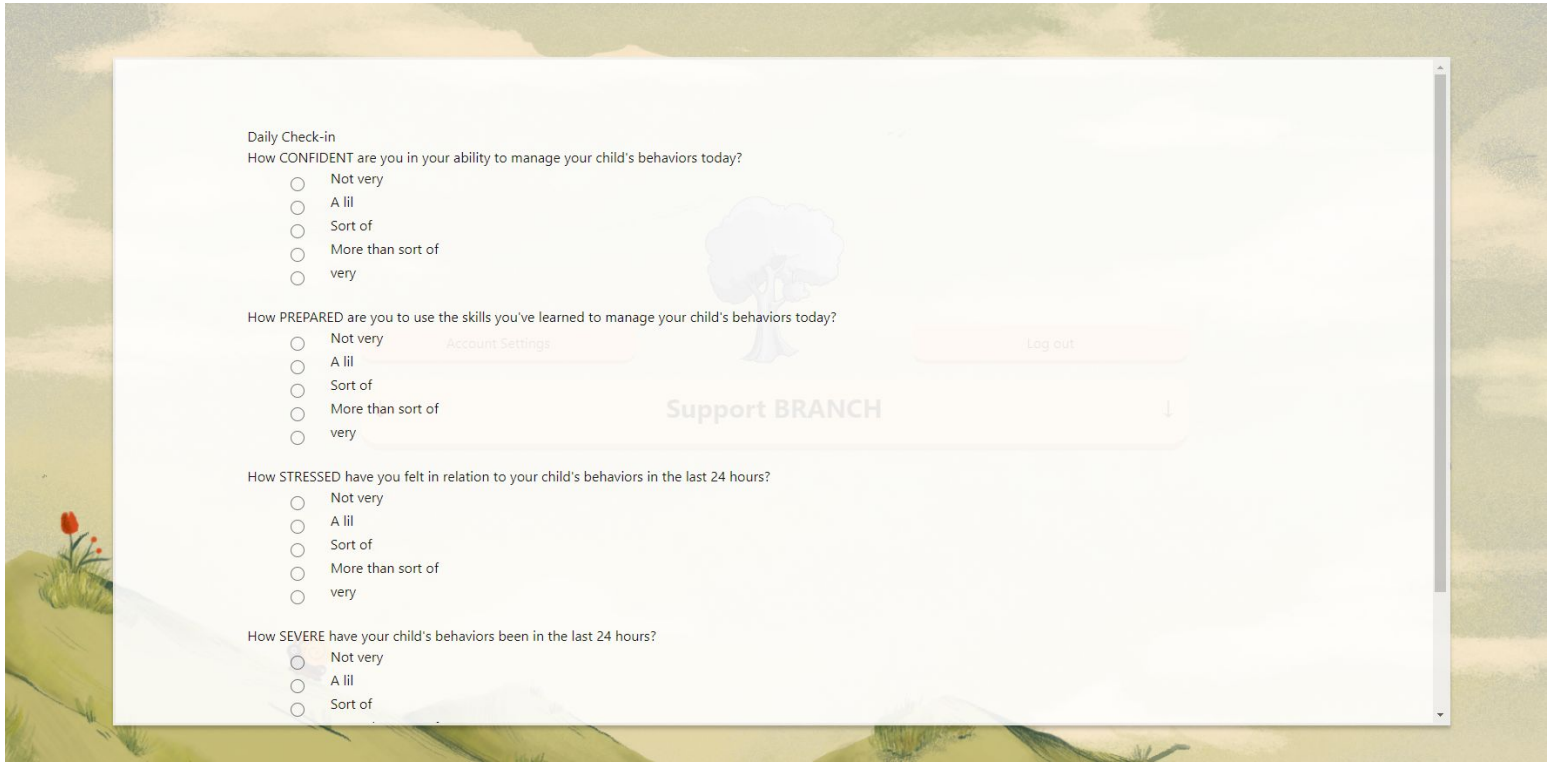




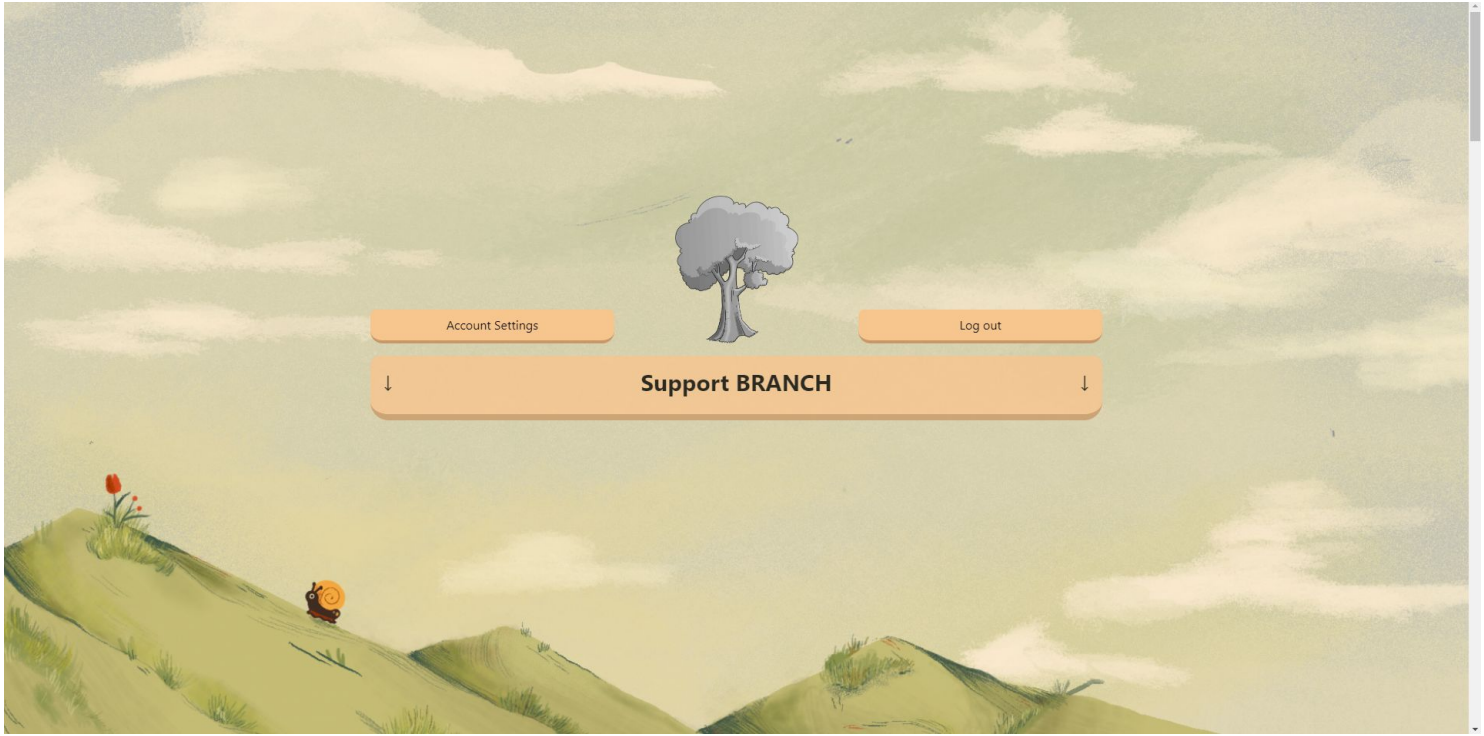
Home Page with Initial Pop-Up



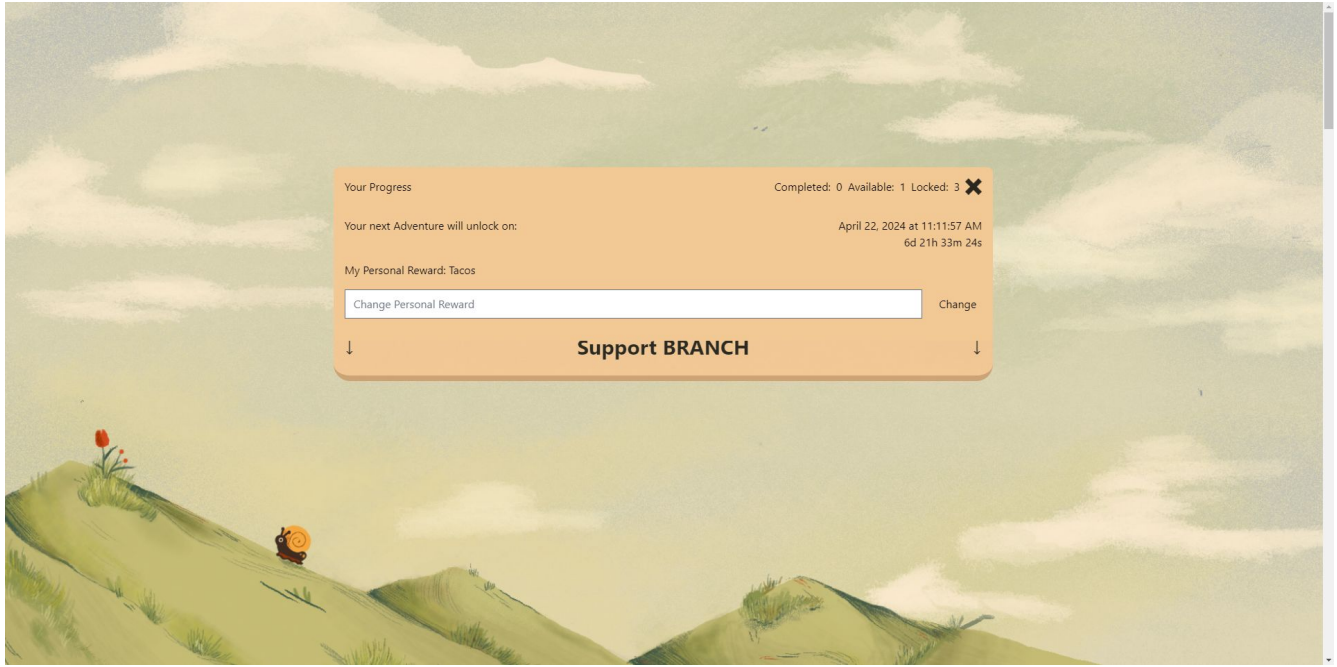
Home Page with Inactive User Pop-Up



Home Page Top



Progress Pop-Up (when gray tree is clicked)



Overview Pop-Up (when banner is clicked)

Support BRANCH

Welcome to **Support**ing **B**ehavior **R**egulation and **N**avigating **C**hallenging **B**ehaviors 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.

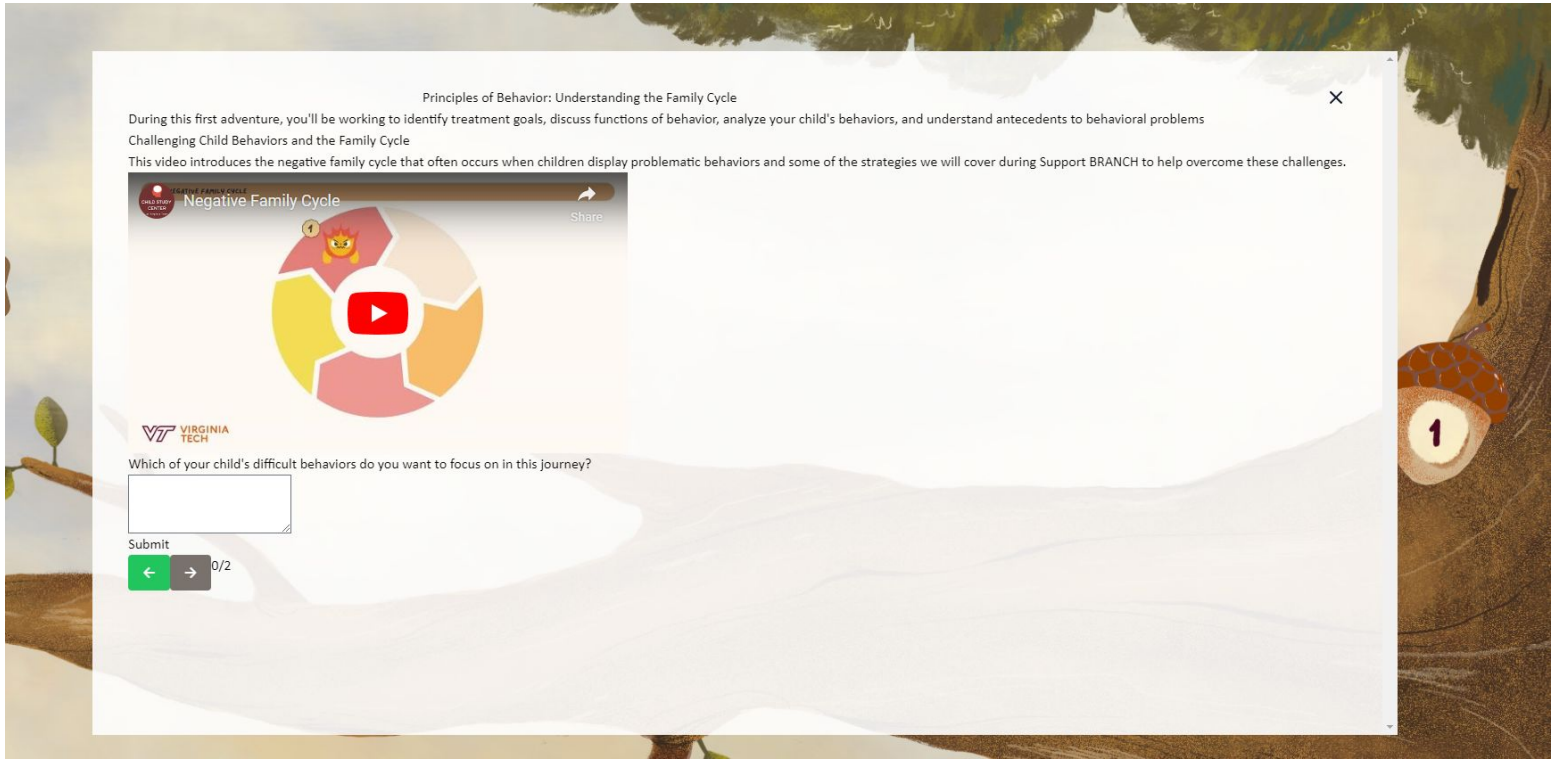
Support BRANCH consists of Four Adventures that will be completed as you climb up the tree of parent support. Each adventure is meant to be completed over a single week, with five tasks in each adventure. If you need, you can complete multiple tasks within an adventure on the same day, though we recommend 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!

Home Page Bottom

Adventure Page

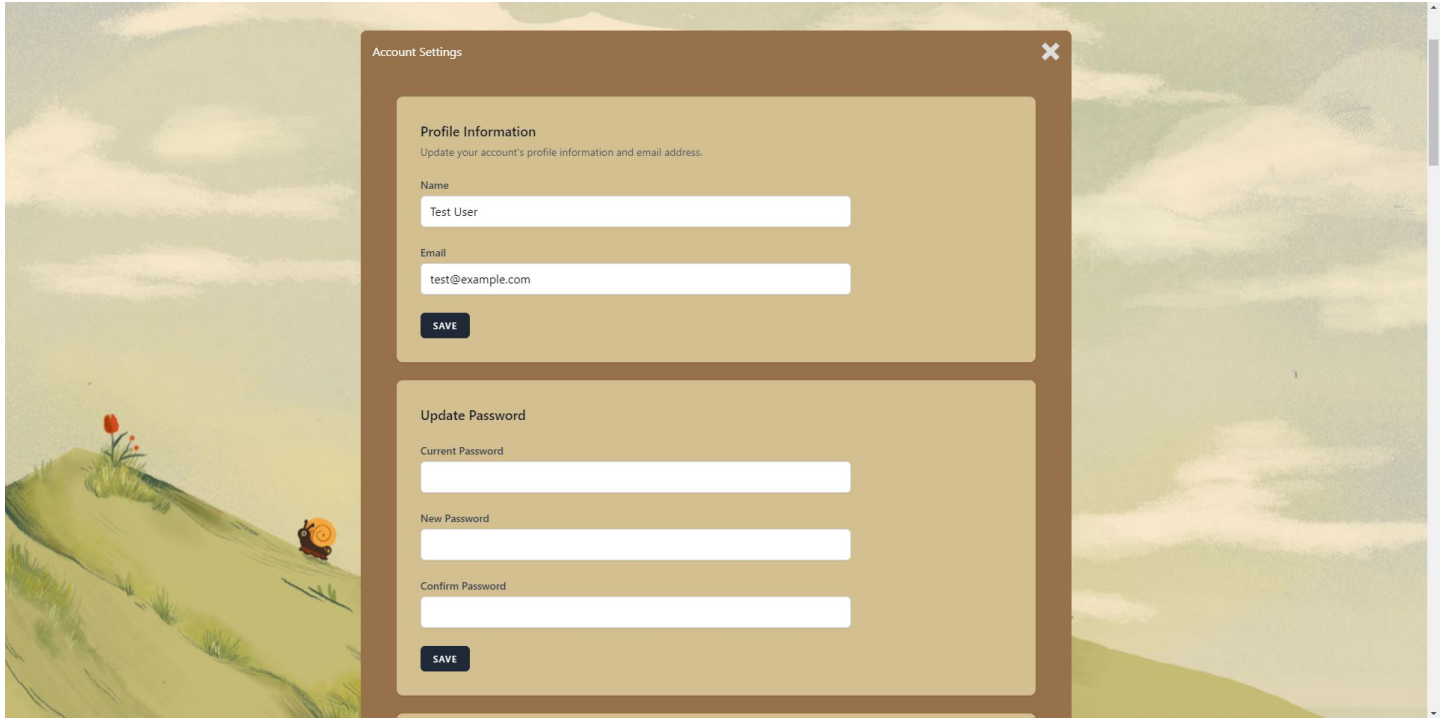
Adventure Badge Pop-Up (click on adventure)

User Submission

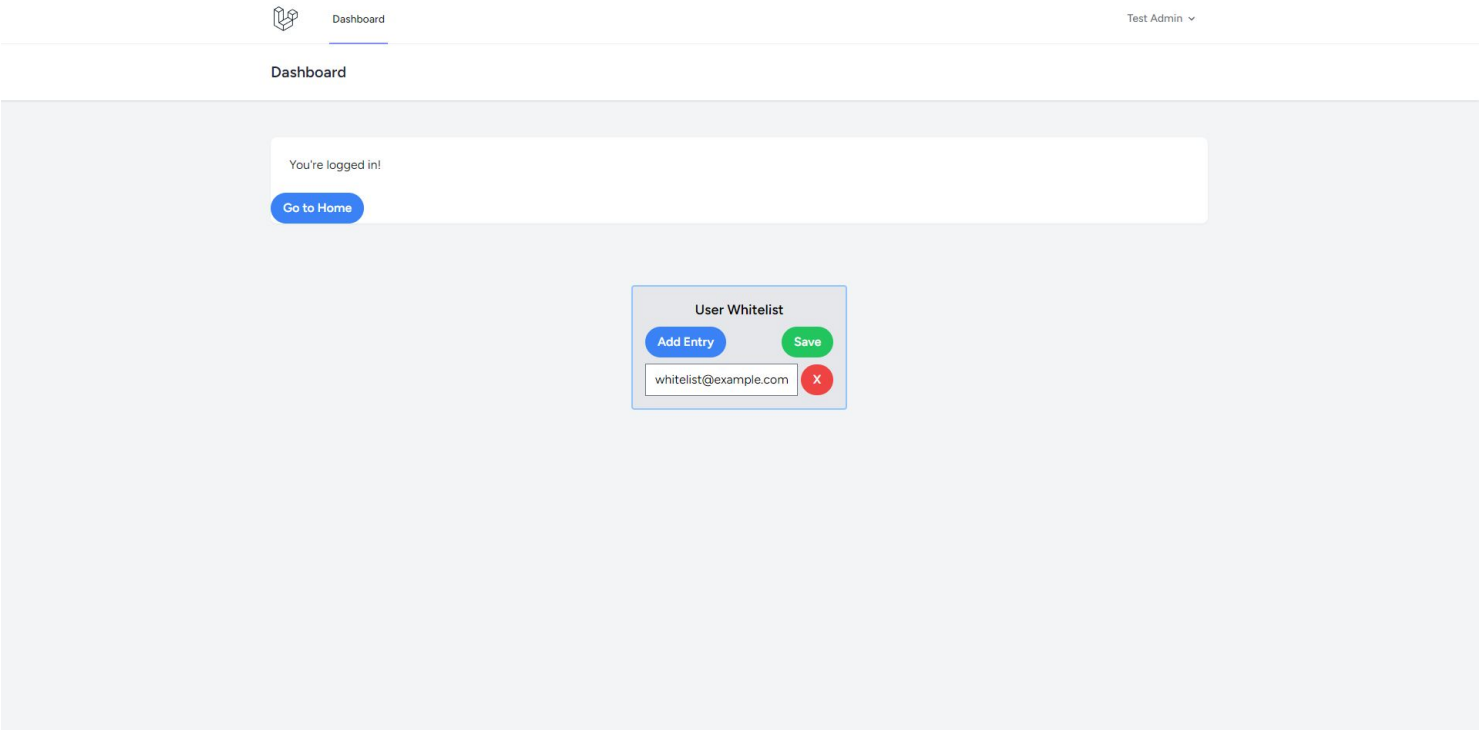


Adventure Page after Explore Completion

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

- Our GitHub Repository:
  Calmer-Lab-VT. (2024). Support-branch [Software]. GitHub.
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- LAMP Stack Application Template:
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- Alpine JS Documentation: https://alpinejs.dev/
- Tailwind Documentation: https://tailwindcss.com/