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SoftDev

P05
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Design Doc V1

Roguelike Oregon Trail: Devo Trail

Overview

- Screen will have a map detailing the route which progresses over time.
- Will be fully customizable to suit the user's interests.
- Implement parallax effect (multi-layered images to create sense of moving) when travelling
- Game cycle will be a lot shorter than the original (~20 min), enforce repeating playthroughs with some permanent progression.
- Player profile detailing stats, maybe leaderboard

APIs

- Map API: Draw the route, calculate travel distance, provide a minimap
- Calendar API: Incorporate time or changing seasons into gameplay

Program Component Connections

- Home Page: Introduction, start game, and navigation hub
- Profile Page: Displays player statistics and potential leaderboard rankings
- Play Page: Main game view with real-time progress along a visual route
    - Parallax background (Parallax is used to simulate 3D environments in 2D spaces by layering backgrounds. Each layer scrolls at different speeds to give the illusion of depth as the character or camera moves.)
    - Choice box for player actions
- Settings Page: Customize characters, choices, and upload backgrounds. Option to reset to default.
- Library Page: A wide array of other user -made games where players can explore and play games, and also being able to favorite them
- Login/Register Page: Create or enter your account information
- CSS: Makes everything look super pretty :)
- JavaScript: Incorporates smoother functionality and flowing elements for awesome UX

Database Organization(SQL)

- Database connects user profiles and progression across all pages
- Map API interacts with the Play Page
- Settings Page updates customization data in the database

`UserProfiles`

Attribute	Type
user_id	INT
username	VARCHAR
stats	JSON
progress	JSON
custom_settings	JSON

`MapData`

Attribute	Type
map_id	INT
route_name	VARCHAR
distance	FLOAT
checkpoints	JSON

`EventLogs`

Attribute	Type
log_id	INT
user_id	INT
event_type	VARCHAR
action	VARCHAR
outcome	VARCHAR

`Assets`

Attribute	Type
asset_id	INT
user_id	INT
asset_type	VARCHAR
file_path	VARCHAR

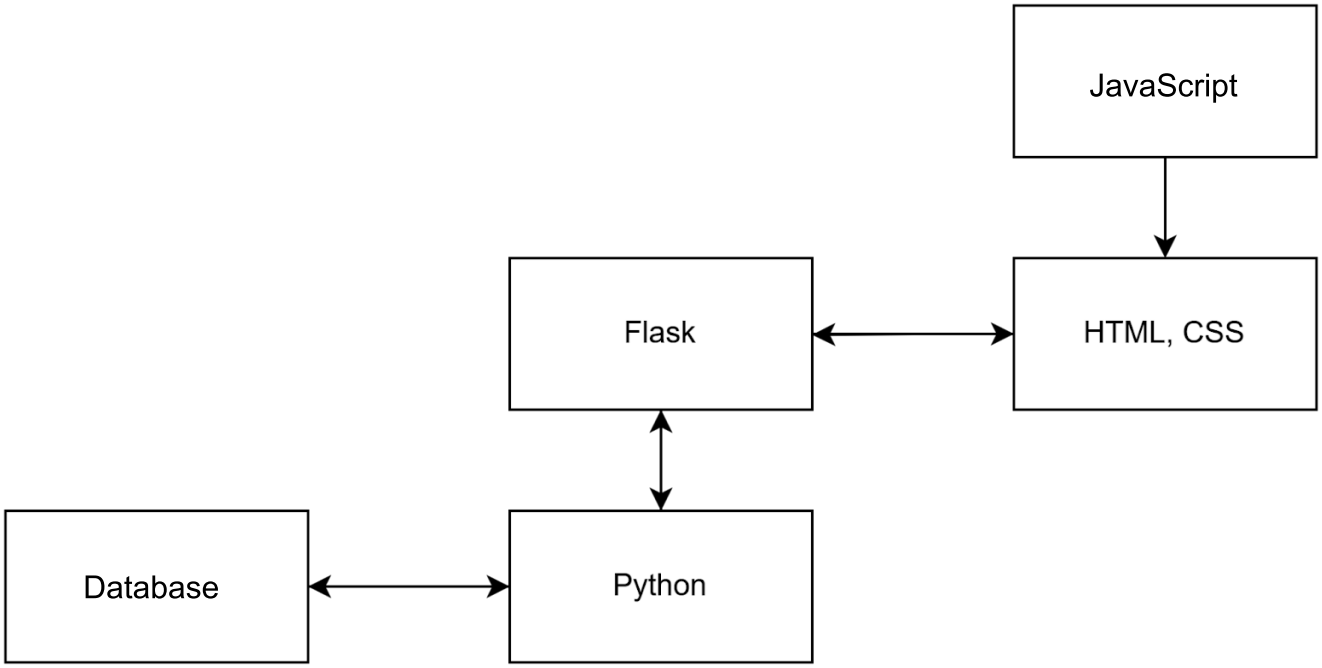
`GameData`

Attribute	Type
game_id	INT
people	INT
supplies	INT
food	INT

API Output Map/SQL Database

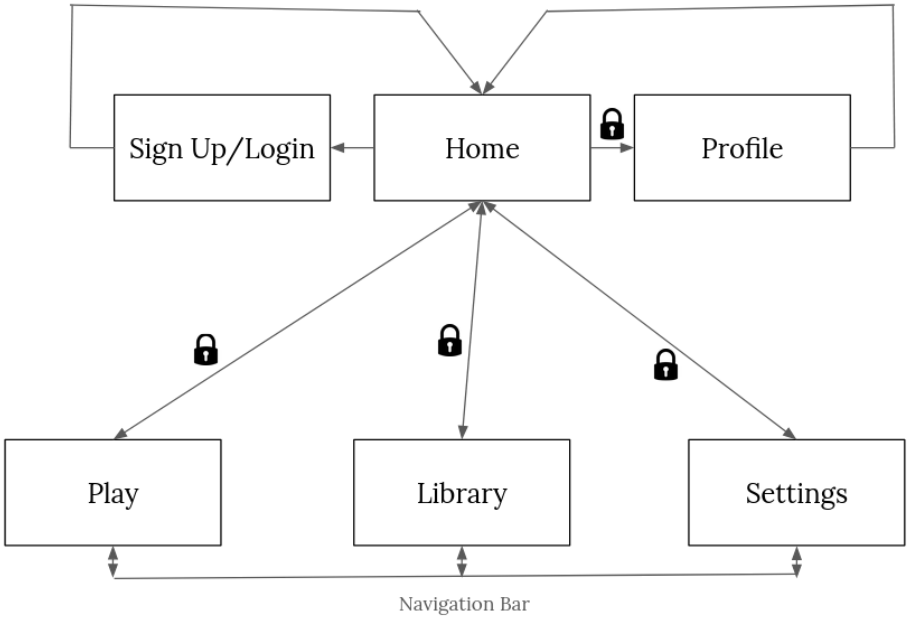
- User Profiles Table: Username, stats, past runs, custom settings
- Map Data Table: Route info, location states, distances
- Event Log Table: Actions taken per game, outcomes
- Assets Table: User-uploaded images, selected backgrounds
- Game Data Table: People, Supplies, Food (Things so game can operate)

Component Map



Site Map

Required to be logged in
(Redirects you to "Sign Up/Login" otherwise)



Home Page:

- Instructions, Sign In, Start Game, Load Profile, Settings, and Leaderboard.
- Minimalistic UI with quick navigation.

Profile Page:

- View player statistics (games played, wins, losses).
- Access the leaderboard.
- Button to reset progress or customize profile.

Play Page:

- Displays current location, past checkpoints, and upcoming destinations.
- Animated parallax effect during travel.
- Interactive markers for events or challenges.
- Dynamic event panel with player choices.
- GIF or image reactions for added visual appeal.
- Options to make decisions, manage resources, or interact with NPCs.

Library Page:

- Displays other users’ games
- Interact to play games
- Add ones you liked to your favorites

Settings Page:

- Character customization: Name, appearance, background.
- Choice customization: Modify difficulty (randomness, possible outcomes), event frequency.
- Background customization: Upload custom images.
- Reset to default settings.

Database

Task Breakdown

Abidur:

- CSS (Tailwind), HTML

Christopher:

- HTML, Login/Logout, Flask/Python

Ivan: PM

- Flask/Python, Game code, Database

Jackie:

- Javascript

Front-end Framework

Framework: Tailwind CSS for styling and responsiveness.
JavaScript: For dynamic content and interactive elements.
HTML: Structuring the UI components.

Sample Movement GIF: (we know you can't see it move lol)