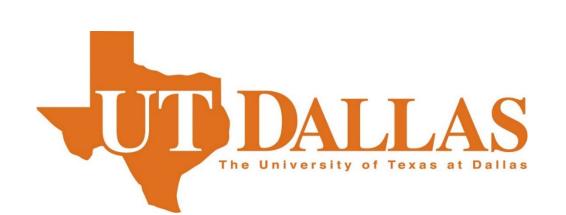# Hangar

Open Source Hackathon Platform

Tristen Even, tge160130@utdallas.edu; Razvan Preotu, rnp170130@utdallas.edu;

Tatum Hutton, tah180000@utdallas.edu; Michael Nguyen, mkn170030@utdallas.edu

Abstract

Hangar is an open-source hackathon management platform developed by American Airlines. Throughout the semester the UTD capstone team collaborated with a group of American Airlines developers to help them further develop Hangar. The team adopted an agile development strategy, prioritizing and categorizing issues based on a two-week implementation schedule. Assigned issue topics ranged from frontend development, backend development, discord/slack integration, testing, and documentation. The team's UT Design project completed in a six-week timeline aims to enhance the user experience of setting up Hangar. The project consists of the creation of a setup page, which is meant to be used by the user when configuring the app for the first time, and a 'Hangar for Dummies' page that gives user detailed navigation through app setup.

Keywords: UI/UX, Agile Development, Documentation

Architecture

Frontend
- React.js
- Docsify

Backend
- Node.js
- Express

Database
- PostgreSQL

Testing
- Jest

Impact

Hangar is designed to be easy to use and enjoyable for everyone. Our project contributes to this design principle by providing a simpler setup process to the user.
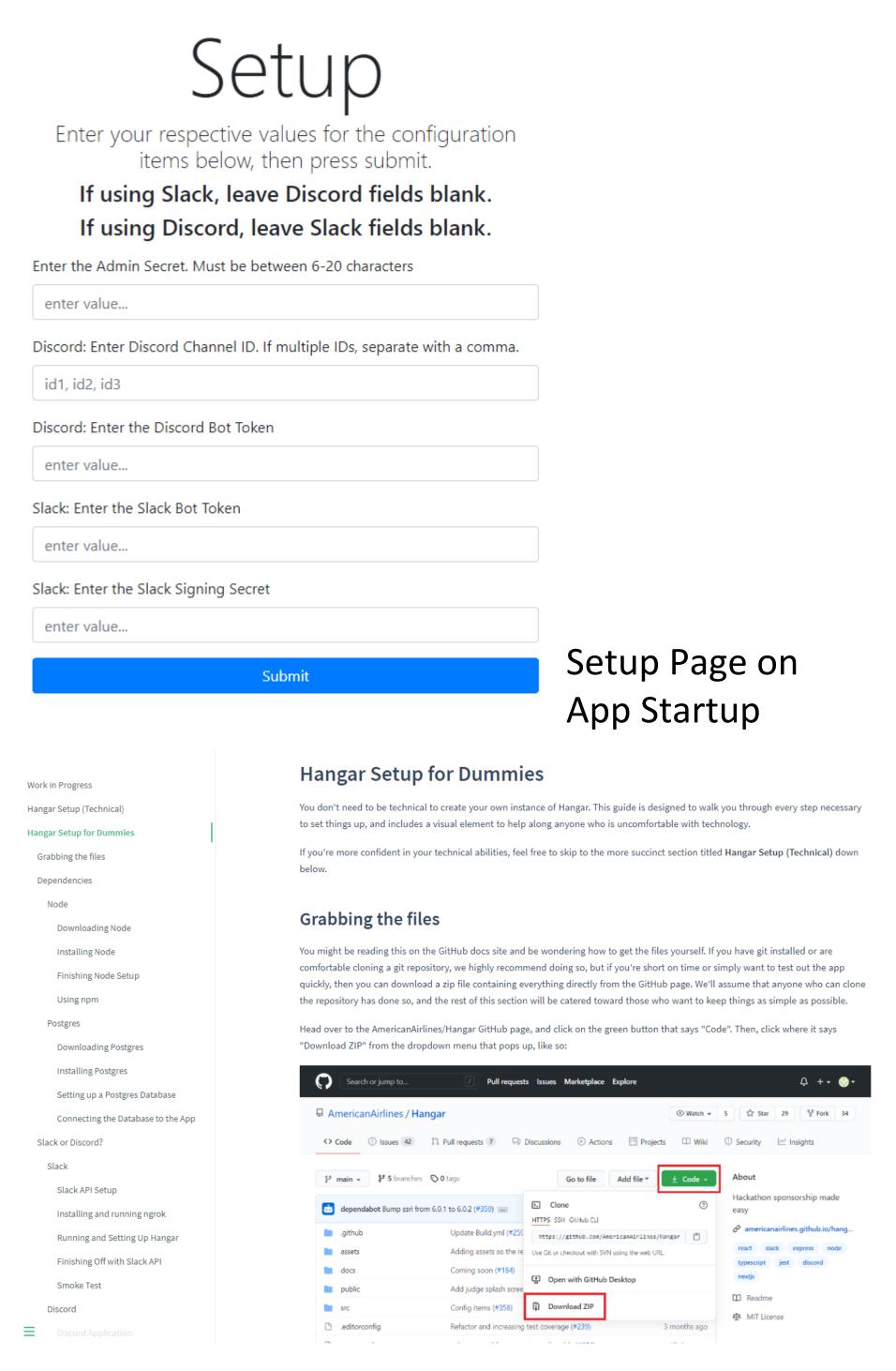
Before
- App didn't start if any of the required configuration entities were missing. User had to directly set these values in the database
- Setup instructions consisted of a simple markdown with few visuals

After
- App can start without any configuring entities and there is a setup page to set these values
- "Hangar for Dummies" page acts as a full user setup guide with visuals

Results

Setup Page on App Startup

Full User Guide with Visuals

Performance

- All undertaken tasks completed.
  - Initial estimate of 20 tasks was cut significantly in favor of tasks with larger scope.
- All functional expectations met.
- Content of each task considered valuable by team and company.

Summary

- Removed the need for certain external tools to begin using app
- Overhauled and streamlined app setup
- Created a full installation guide for lay users that requires zero technical knowledge
- Helped overhaul testing suite to minimize future tech debt