North Star Sharing

Team Roster

Daniel Arbach	Russell Brazell
linkedin.com/in/daniel-arbach/	linkedin.com/in/russell-brazell-abq/
github.com/darbach	github.com/rbrazell1

Summary and Aim

At North Star Sharing, we aim to bring the furthest reaches of the vast riches from outer space within reach one picture at a time! Whether you love to capture beautiful long exposure photos of the night sky or the highly technical images produced by telescopes like The Giant Magellan Telescope, we've got you covered. Easily share the captivating images you take alongside with the celestial coordinates to a community of fellow gazers! Explore other members' photos and find them for yourself with the attached coordinates and help from your phone to point you in the right direction.

The topic of this app was chosen because the members of our team share a love of science, particularly the exploration of outer space. We felt that there was a niche opportunity with hobby astronomy to share photos and provide a convenient method to search and categorize images by astronomy-related topics. We feel that the most useful feature is discovering an interesting picture that someone else has posted to the app and being able to use the app's features to locate that same celestial body and orient one's camera, no matter how much time has elapsed or where the photographer is standing upon the Earth.

Functionality

After signing in, users will be able to take pictures of celestial objects and attach tags for easy categorization and searching. A user's own pictures will be displayed in a social media-style feed. Users may search for pictures of specific celestial objects from a robust list of available tags. Using a tag, a user may locate a celestial object using their camera, and the app will point them to the correct patch of the night sky. (The heavens await!)

Back End Technology Stack

Ubuntu 18.4 - Linux Sever Host

Apache Tomcat - Java SE 11 Application

RESTful Web Service

Apache Derby - Database

Hibernate - Object Relational Mapping

Spring Boot - Data

Spring: Model-View-Controller - Service Controllers

Jackson: JavaScript Object Notation - View Building

Google OAuth - Authentication

Front End Technology Stack

Linux Kernel

Android SDK 28 - Java SE 1.8

SQlite - Data Model

SQlite - Database

Room - Object Relational Mapping

SQlite and Room: Model-View-ViewModel-Controller - Service Classes

Google OAuth - Authentication