

Hands on – Tech stack

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ITAS - Web & Mobile Development

ITAS282 - Final Project Proposal

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Tech Stack Report

Programming language:

This application uses React Native as building cross-platform development tool, the main Programming language for React Native is **JavaScript**.

Tools and frameworks:

React Native (version 0.70.5) for building cross-platform mobile applications
Expo (version 47.0.12) for development and hosting

Libraries and APIs:

react-navigation (version 6.9.8) for navigation between screens, including the following packages:

"@react-navigation/bottom-tabs" (version 6.5.3) for bottom tab navigation

"@react-navigation/material-top-tabs" (version 6.5.2) for top tab navigation

"@react-navigation/native" (version 6.1.2) for basic navigation functionality

"@react-navigation/native-stack" (version 6.9.8) for stack-based navigation

node.js (version 18.13.0) for runtime environment

expo-splash-screen (version 0.17.5) for creating a splash screen

expo-status-bar (version 1.4.2) for controlling the status bar

react-native-easy-grid (version 0.2.2) for grid layout

react-native-safe-area-context (version 4.4.1) for managing safe area boundaries

react-native-screens (version 3.18.0) for using native screens

react-native-tab-view (version 3.3.4) for creating tab-based navigation

Jest (version 26.6.3) and **Jest-expo** (version 47.0.1) for testing

Options:

Google map API for location services – Address input auto-completion

Data stores and databases

MongoDB for data storage

Development tools

VSCode with the following extensions:

eslint

prettier

Auto Import

ES7 React/Redux/React-Native snippets

Testing tools

Jest and Jest-expo for unit and integration testing

Integration tools: Expo for integrating with other services and APIs

Hosting

Expo and MongoDB for hosting the application

Costs

MongoDB

MongoDB Atlas, the cloud-based version of MongoDB, offers a free tier with 512 MB of storage. For larger storage needs, pricing starts at \$9/month.

Expo

The basic version of the Expo is free. For more advanced features, pricing starts at \$199/month.