

Carleton University
COMP 4905: Honours Project
Instant Text Messaging App

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1. Motivation

I really like making web-based app and wanted to also make a real time application. So, the real time chat messaging came to my mind as I can incorporate both the technologies and make something that can be used by regular users.

2. Main Objectives

This app's goal is to enable users to chat with other users in real time. I wanted to make this application as I want to learn a new framework and make a fully functioning application which will built from scratch and be useable in my day today lifestyle.

3. Equipment Requirements

- Laptop with storage available min 30 GB
- GitHub Account
- Access to Internet

4. Implementation

Front end: React Native, Expo SDK, TypeScript, React Navigation

Back end: AWS Amplify, GraphQL

The app is going to use React Native, Expo SDK as it gives us very useful tools especially to setup a project and bootstrap it and has various libraries for ease, TypeScript, and React Navigation for front-end part of the application. For the back-end part of the application I am going to use AWS Amplify which provides lots of services to build and deploy web applications and provides access to various API and GraphQL API is what I am going to use for this application. AWS Amplify gives access to s3 which is a storage service and provides services such as analytics to authentication as it has a prebuilt authentication items such as log in, sign up, forget password to name a few. Currently I am deciding between AWS vs Firebase from Google as a backend. These technologies were not used and will be unique as they are not taught in courses.

5. Testing

The real time integration of the frontend and backend part of the application including showing the chat list, chat screen, sending and

receiving messages, providing authentication to either register or login along with real time updates. For the front end the app design will be user friendly and responsive.

The end goal is to make a fully fledged instant text messaging app where multiple users can join in and chat amongst each other.

6. Deliverables

16 th Jan 2022	Research the technologies to be used and provide a summary
30 th Jan 2022	Providing the skeleton of the website in HTML format
16 th Feb 2022	Complete the front end of the application
30 th Feb 2022	Configure AWS to store user data
16 th Mar 2022	Complete the back-end implementation
30 th Mar 2022	Complete the authentication and validation
16 th Apr 2022	Compile all the technologies to create an app
30 th Apr 2022	Submit a project report