

BusiTrack

CSC490-02 Senior Capstone, Spring 2020

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Purpose

This is a web application that helps business owners manage their businesses, the process can also be managed through text messaging. Many individuals prefer texting as the main type of communication, so having an application that can also be managed through text will greatly increase its usability. The owner is able to sign up and add their business through the web app, then a message through to the provided phone number will respond to verify. The owner can either use the web app or if in a hurry can text commands. The web app takes the business's daily expenses and gains, and show it on the web app.

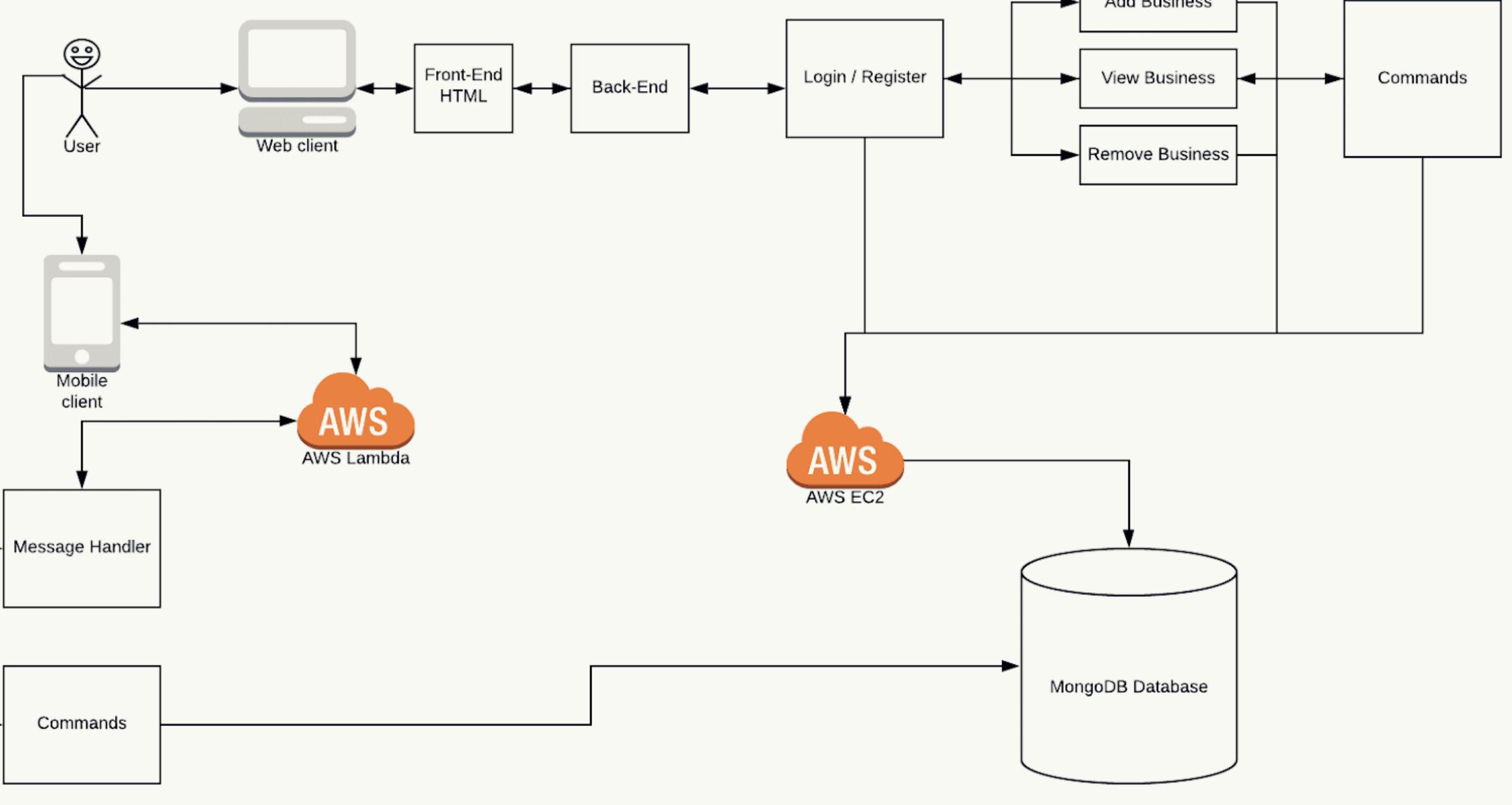
Tools

These are the following tools used to develop this project:

- Node.js
- React
- Twilio
- Python
- AWS Lambda
- AWS EC2
- MongoDB

Architecture

Following the MVC architecture, there are two views, a text message view, and a desktop view. The text message view is the phone's text message interface. The desktop view contains the web app in a browser. Each view interacts with our AWS web server via controllers and the web server interacts with the database via another controller.



Github QR:



Web App QR:



Systems

- **Website Front-End:** This system deals with the GUI for the website, allowing the user to register/login, access their respective Businesses view/manipulate the information stored in the server
- **Website Back-End:** Each business contains an array of objects that are each unique for the user so it populates each business with its corresponding objects array to be sent to the front end.
- **AWS Server Back-End:** Our AWS EC2 instance holds 2 servers, one for the React front-end and one for the Node and Express back-end. The react front-end makes calls to the node and express front-end who in turn make calls back to react and also the mongo database for updates and information requests.
- **MongoDB/DBMS:** The node server is equipped with the mongoDB npm package and the body parser package. Body parser gets the users info from the forums and store it in variables then calling on the mongoDB schemas in javascript to store the information.
- **Phone Back-End:** This system deals with the commands that are sent by the user through the phone and responds with appropriate message after updating database for their business. The commands are made simple so user can type quickly.

