

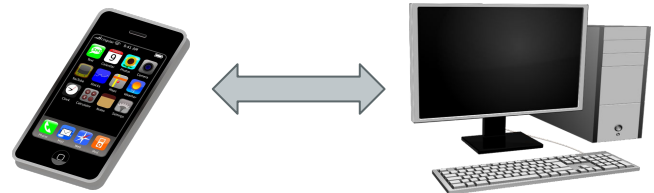
BusiTrack

CSC490 Senior Capstone
Final Project Progress

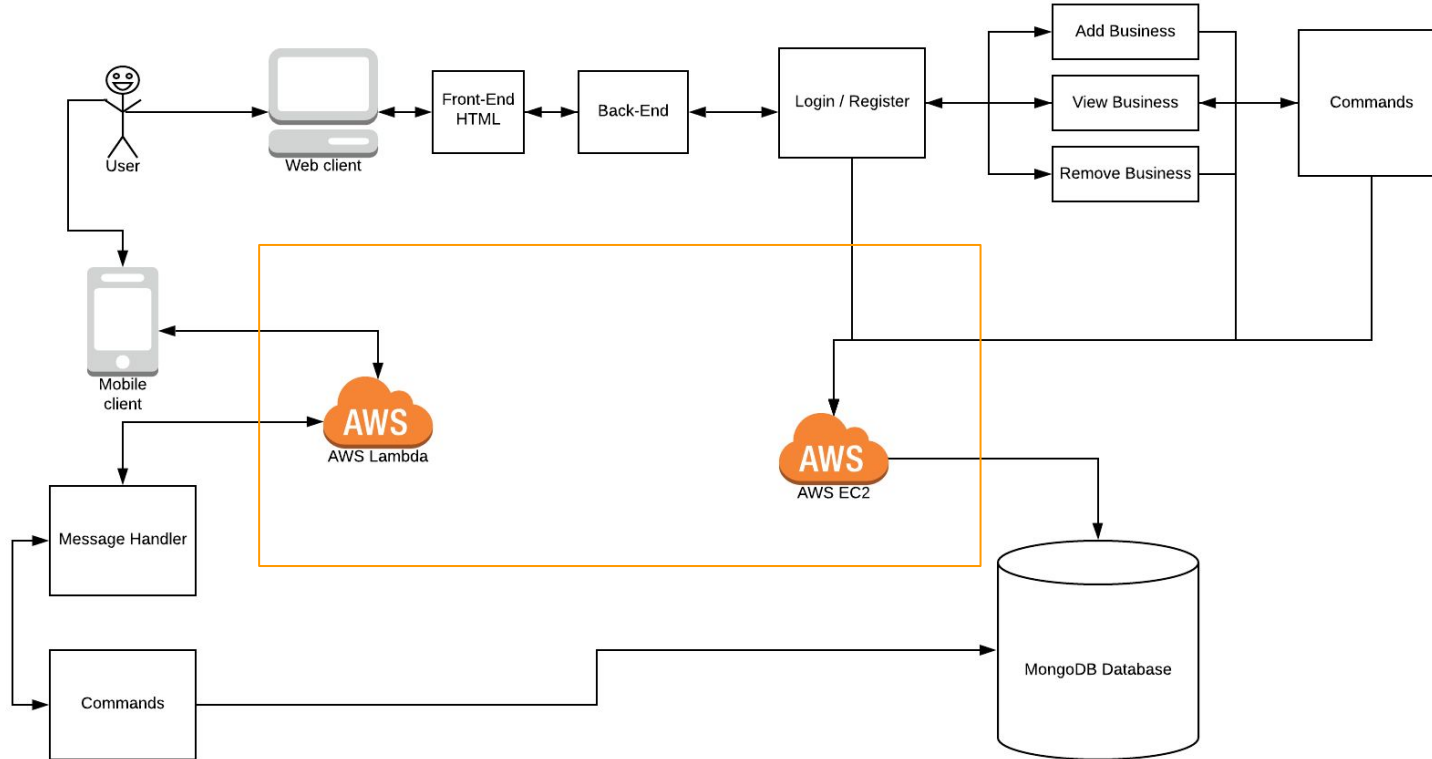
**Wahab Ehsan, Avery Anderson,
Jaron Dunham, Jared Chadwell,
Brandon Chandler**

Idea of BusiTrack

- This is a web application that helps business owners manage their businesses through web interface and also be managed through text messaging.
- Preferable method of communication usually is texting.
- Specific commands through phone text can be used to update businesses expenses.
- Business owner can add multiple businesses.
- The web app will be able to take the business's daily expenses and gains, and show them on the web app.
- Internet not required while using texting.
- Phone service required.



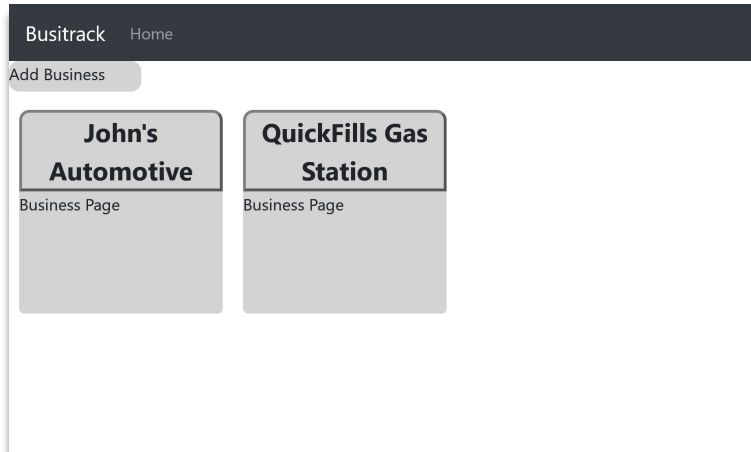
Overall Architecture



Front End Website (Jaron's Task)

- Responsible for the Front End Website GUI
- Created the respective pages and components (using React JS) that needed to be ran on the website

Business being display in Business Main



Information being display in Business Main

The screenshot shows a web application interface with a green header bar containing the text "Retrieve Information". Below the header, there is a section titled "Welcome to the Business Main Page". Under this section, there are two input fields: "Business Name" with the value "test Autos" and "Phone abbreviation" with the value "testautos". Below these fields, there is a section titled "Business Employees" which contains a table with the following data:

First Name	Last Name	Contact Number	Address	Pay	Group	Last 4 SSN
Kevin	Coogan	Phone: 13363125657	1521 Place St. Greensboro NC, 27282	\$9.50	0	223456789
Kebin	Koogan	Phone: 13363125657	1522 Place St. Greensboro NC, 27282	\$11.50	0	323456789

Below the table, there is a section titled "Business Manager" which contains a table with the following data:

First Name	Last Name	Group
Kevin	Coogan	0

Below the table, there is a section titled "Business inventory" which contains a table with the following data:

Item Number	Item Name	Item Price	Stock
01	Strawberry Cheesecake	\$25.00	8

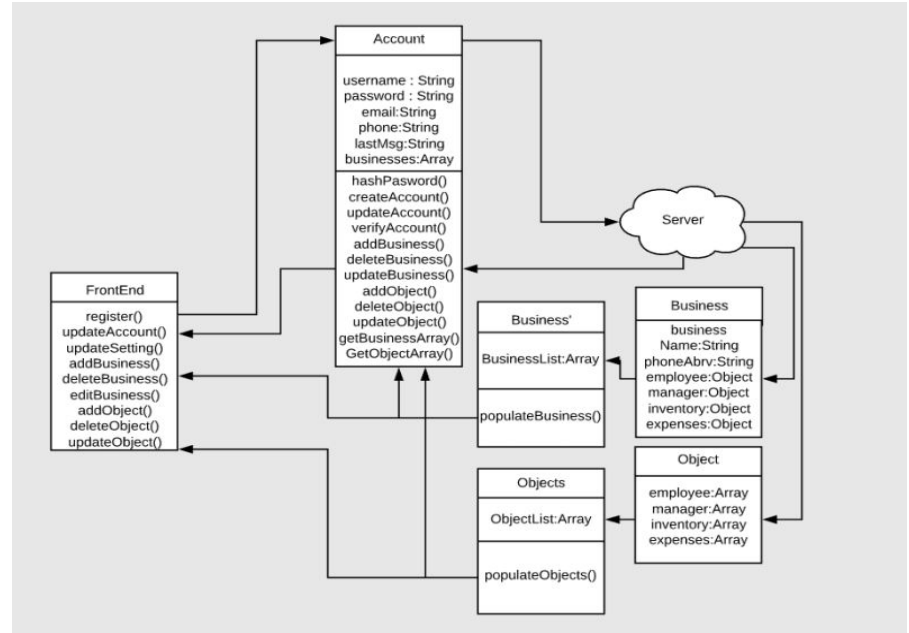
Below the table, there is a section titled "Business Expenses" which contains a table with the following data:

Date	Amount
2020-04-09T17:09:29.986928	200

Back End Website (Brandon's Task)

- Responsible for getting connectivity between the front end Website, and the Database Server.
- Created routing system with respective structure through express.
- Secured data transfer security
- Assisted with react implementation for routing connection.

Back end structural diagram -



Back end and AWS server (Jared's Task)

- Front End to Back End Communication
 - Front end sends requests through Axios dependency
 - Back end catches requests with Cors dependency
 - Data is then manipulated and processes and sent back to the front end through a response

MongoDB/DBMS (Avery's Task)

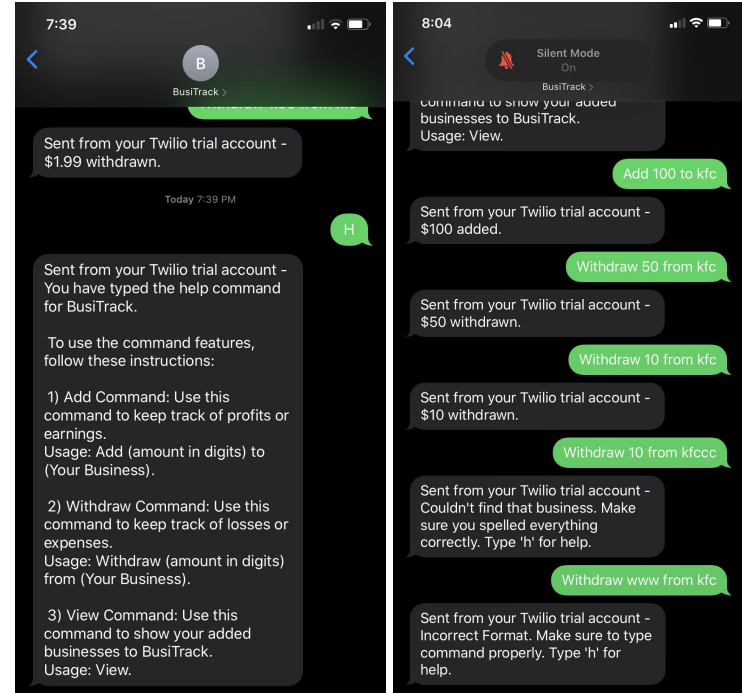
- Responsible for managing MongoDB DBMS repository and all associated CRUD operations
- Assisted in connecting the frontend and backend for both browser and phone views
- Ensured structural management of input to the CRUD operations

User Objects as they appear in the database

```
> { "_id": ObjectId("5ea364586d00df05c623ddcb"),
  "username": "ming27",
  "password": "$2b$09$/duSmAoJq01JgeRSvx3V5.bkgMYo/LmJ8ksX153YamA4NeuM2yQ02",
  "email": "testn@test.test",
  "phone": "+13364176628",
  "lastMsg": "Withdraw+100+from+johns+",
  "businesses": Array
    ~ 0: Object
      businessName: "John's Automotive"
      phoneAbrr: "johns"
    ~ employee: Array
      ~ 0: Object
        ssn: "223456789"
        fName: "Kevin"
        lName: "Coogan"
        contact: "Phone: +13363125657"
        address: "1521 Place St. Greensboro NC, 27282"
        pay: "$9.50"
        group: "0"
      ~ 1: Object
    ~ manager: Array
      ~ 0: Object
        ssn: "223456789"
        fName: "Kevin"
        lName: "Coogan"
        group: "0"
    ~ inventory: Array
      ~ 0: Object
        itemNumber: "01"
        itemName: "Wiper fluid"
        itemPrice: "$25.00"
        stock: "8"
    ~ expenses: Array
      ~ 0: Object
        date: "2020-04-09T17:09:29.986928"
        amount: 200
```

Phone Back-End/Front-end (Wahab's Task)

- Responsible for Phone side development.
- Connection between AWS Lambda , Twilio and MongoDB.
- AWS Lambda runs only when triggered.
- Twilio allows programmable texting.
- AWS Lambda and Twilio connected through HTTP webhook.
- Commands that are parsed and understood by phone backend and acted on.
- Implementing easy commands for user.
- Front-end is the user's phone message app.
- Wording for responses informative and friendly.



Demo

Questions?

Thank You