Belize Cattle Tracker

User Documentation
Version 1

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Overview

This document should provide a general idea of what our system does and should provide a step by step process of how users can install the software needed to successfully run our system on their end. This document also provides end users with visuals of how our interfaces work and interconnect with each other.

Objective

The main objective for this documentation is to increase usability through providing thorough installation and usage instructions.

About Belize Cattle Tracker

About: Belize Cattle Tracker is a cattle traceability system that offers for livestock agriculture to be revolutionized and for an easier alternative to keep track of cattle information for cattles that are used to produce industry level meat produce. Belize Cattle Tracker assists BAHA in making sure that quality control is maintained when producing meat products in Belize. Belize Cattle Tracker also aims to allow our customers with an insight of cattle information, so that they can make effective decisions when purchasing produce from meat production companies who collaborate with us (Running W).

Version: 1.0

Installation: For users(Farmers, Slaughterhouse Managers, Packaging Managers, Customers) no installation is needed. However, for the BAHA Admin users, since they will be managing the system, there will be required software for them to install.

System Requirements: Belize Cattle Tracker is a web based application that is adaptable to both desktop and mobile devices.

For our desktop users (ADMINS): A device (desktop, phone, tablet) that is able to connect to the internet.

Four our mobile users (Customers/ADMINS): A smart device that has a camera (rear view/back camera) with the ability to scan QR codes.

Using Belize Cattle Tracker

ADMIN SIDE

BAHA (Main Managers of System)
To run the system
Install Node.js
https://www.youtube.com/watch?v=hJj2rj-nzuw&t=2s

Install ReactJS
https://www.youtube.com/watch?v=0twjvW0c1r0
https://www.youtube.com/watch?v=e1IQAIBJiHQ

Install Visual Studio Code
https://www.youtube.com/watch?v=MlIzFUI1QGA
https://www.youtube.com/watch?v=JPZsB_6yHVo

Log Into shared Firebase account.
https://www.youtube.com/watch?v=jCY6DH8F4oc&t=753s

Credentials are:
Email: belizecattletracker@gmail.com
Password: BzCattle

To do testing
Install Jest
https://www.youtube.com/watch?v=Fi8RiagOFaA
https://jestjs.io/docs/tutorial-react

Add the code below to the package.json file
```
{
    "scripts" : {
        "test" : "jest"
    }
}
```
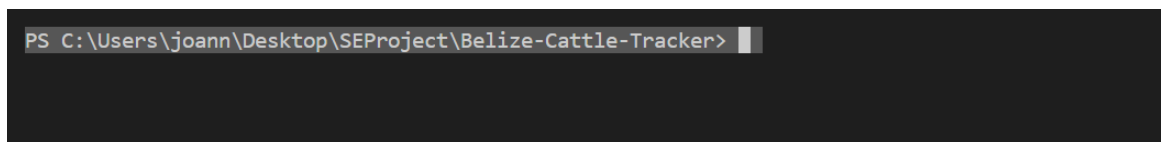
Running test on application:
1. Open a new terminal in Visual Studio Code.
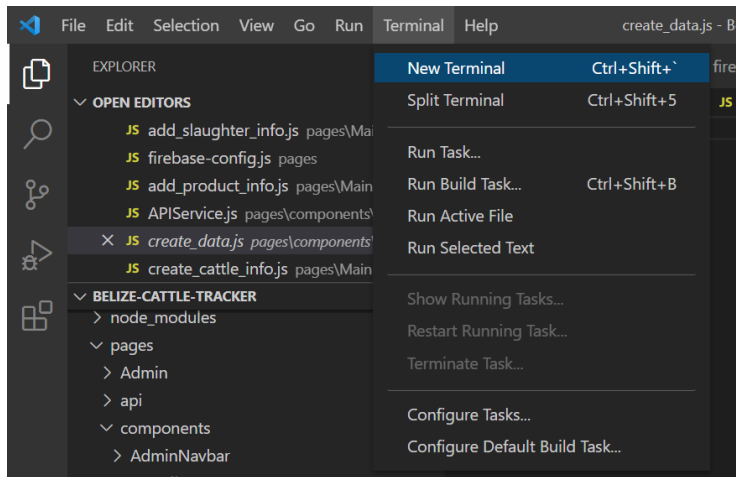
2. Confirm that your terminal is in the command prompt and not the power shell.
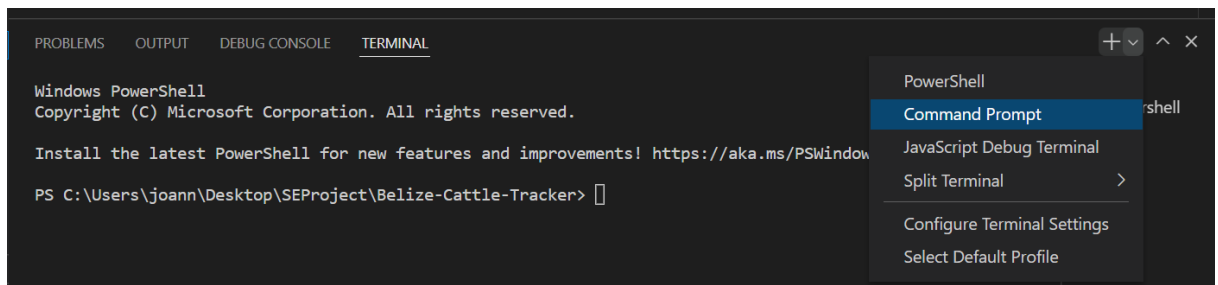
3. Open the folder of the proper directory containing the code.


```
PS C:\Users\joann\Desktop\SEProject\Belize-Cattle-Tracker>
```

4. Verify that Jest was included in the package.json file.

```
8       "scripts": {
9         "dev": "next dev",
10        "build": "next build",
11        "start": "next start",
12        "lint": "next lint",
13        "test": "jest --coverage"
14      },
```

```
"devDependencies": {
    "eslint": "8.10.0",
    "eslint-config-next": "12.1.0",
    "jest": "^27.5.1"
}
}
```

5. Type the following command into the opened terminal (for integration testing): npm run test

```
C:\Users\joann\Desktop\SEProject\Belize-Cattle-Tracker>npm run test
```

6. Type the following command into the opened terminal (for unit testing): yarn test -- -t 'name of the test case'
   Example: yarn test -- -t 'TC-1 Add cattle info successfully to the database with valid data'
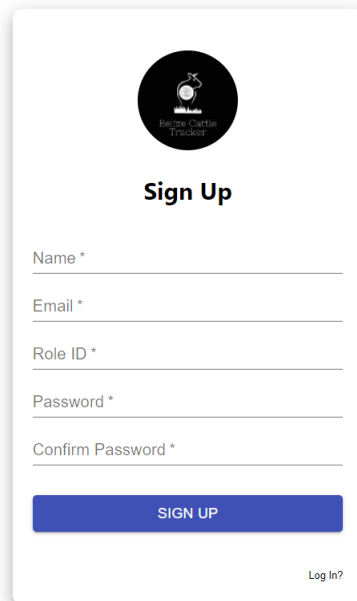
```
C:\Users\joann\Desktop\SEProject\Belize-Cattle-Tracker>yarn test -- -t 'TC-1 Add cattle info successfully to the database
with valid data'
```

To use the system

1. Login with created credentials.
2. Access Belize Cattle Tracker ADMIN site.
3. Follow the steps stated below.
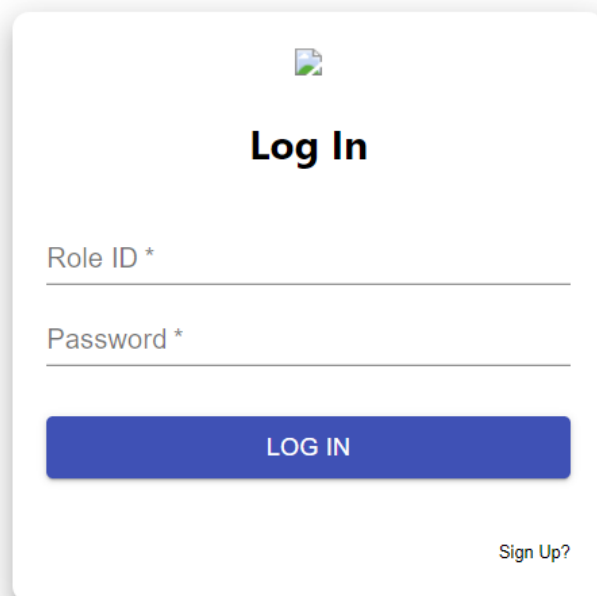
Other ADMIN Users of the System (BAHA, Baha Registered → Farmers, Slaughter House Managers, Packaging Managers)

1. Sign Up for an account using desired credentials and with assigned role codes from (BAHA/system auto generation).
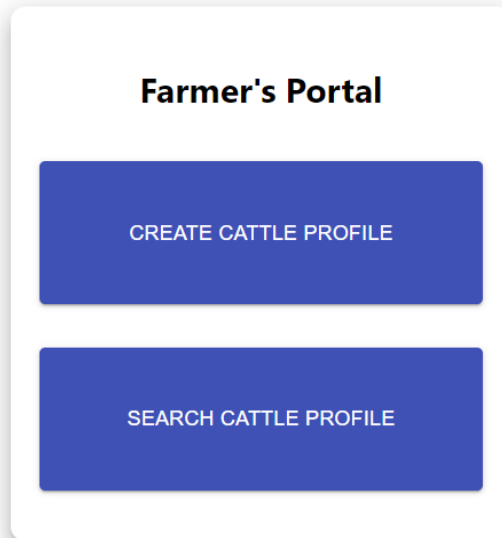
2. If you have already previously created an account with a BAHA assigned role code, Login.

3. Access your role portal. Example: A farmer accesses their farmer portal. Portals are all similar. All have a button to search for a cattle profile and add on information to the cattle profile.
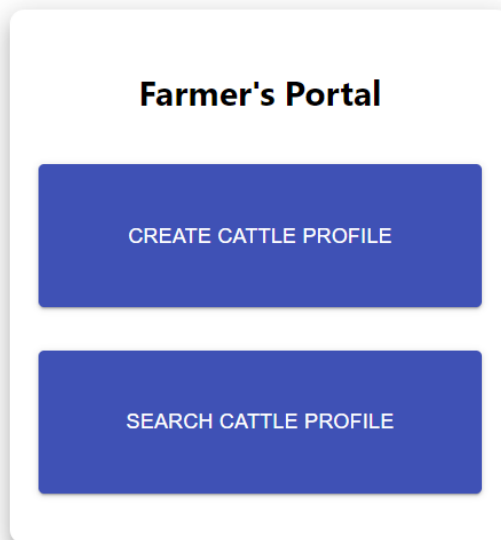

4. (eg: farmer) Selects the Create Cattle Profile button. (Slaughterhouse and Packaging Managers do not have this option → Skip to step 7).

5. Cancel clears all entered fields. Add profile adds the information to the database and the system autocreates a profile containing the data/updates the profile information.

6. To view an added cattle profile, or to add/update cattle information, the Search Cattle Profile Button can be selected.
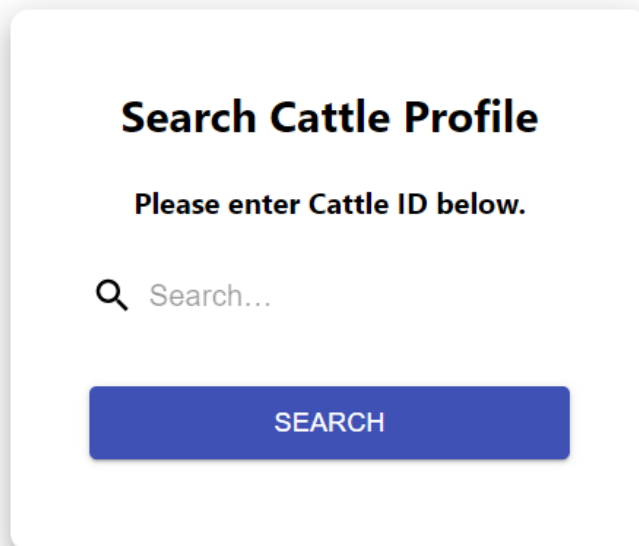
Farmer's Portal

CREATE CATTLE PROFILE

SEARCH CATTLE PROFILE

7. When the Search Cattle Profile button is clicked, it takes the user to the search page where they can search for a cattle by its cattleID. Select the Search button once the ID is entered. (All ADMIN users have this option).
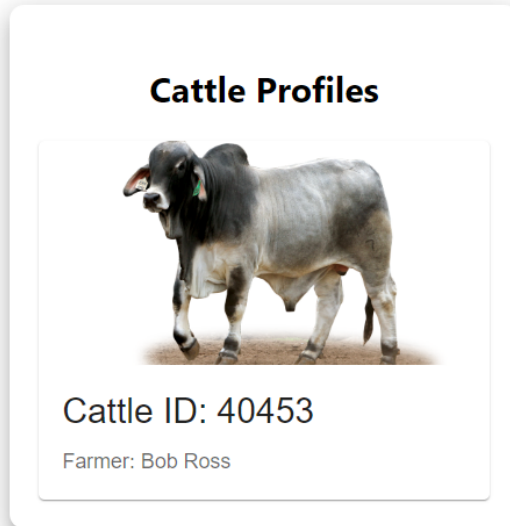
Search Cattle Profile

Please enter Cattle ID below.

Q Search…

SEARCH

8. When search is made, the database retrieves and connects the profile to its cattleID. And displayed the requested cattle.

9. Users can click the displayed cattle profile. And will be taken to a form containing previously added information from the former stage.

10. Exit sends the user back to the previously opened page. Add carries the user to a form customized to the data needed from their stage. (Cattle Birth Info→Slaughter Info→Packaging Info)

Create New Slaughter Info

Slaughter Date 📅

Slaughterhouse Name *

Cattle ID *

Slaughtering Methods Used

Factory Destination *

Factory Name *

Life Status ▾

CANCEL   SAVE

OR

Create New Packaging Info

Factory/Company Name *

Meat Product Type *

Cattle ID *

Product Description

Product Weight *

Packaging Date 📅

Expiry Date 📅

Cost per Unit *

Batch Number *

Store Name *
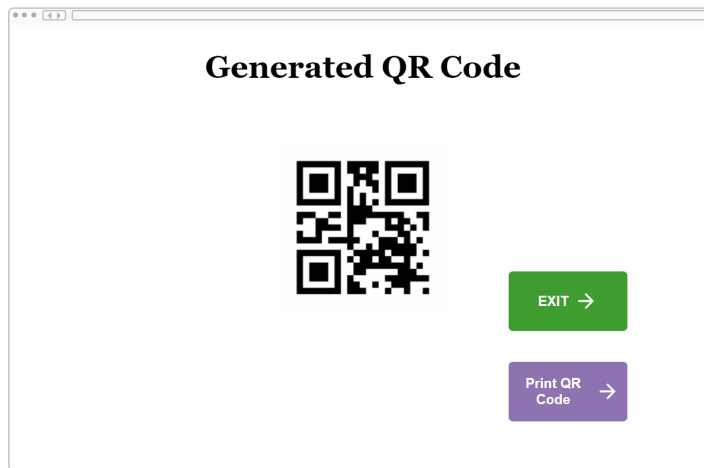
Store Location *

Trading Details
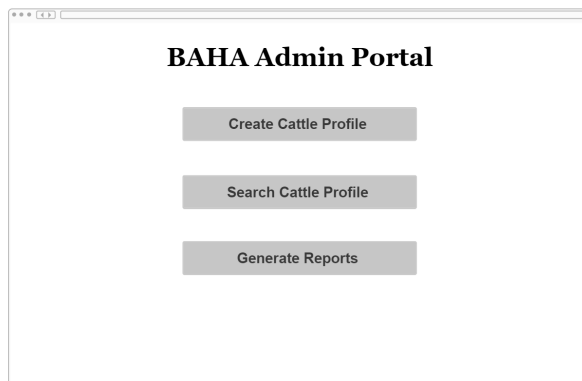
GENERATE QR CODE

CANCEL   SAVE

11. Step 5 is repeated when Cancel or Save is selected.

12. For *Packaging Managers*, if Generate QR Code is selected, they will be redirected to a page containing the uniquely generated QR (from the system). The data for the QR code will be pulled and connected to the QR code.
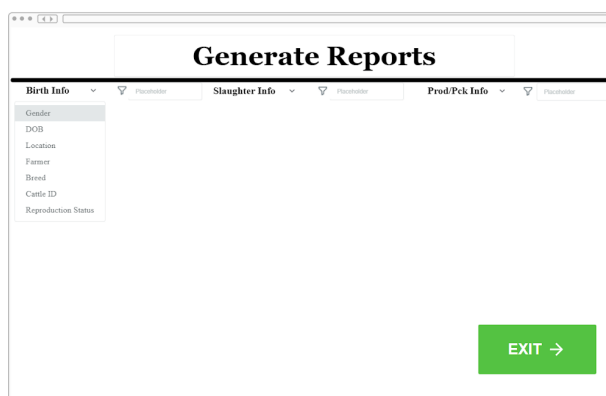

13. Exit takes the Packaging manager to a previously opened page.
14. *Only* BAHA ADMINS have the option to generate reports. Their Portal will have the option for them to select a Generate Report Button.

15. They can generate reports based on specific data types, through filtering. (Eg: through cattleID)

Generate Reports

Cattle ID

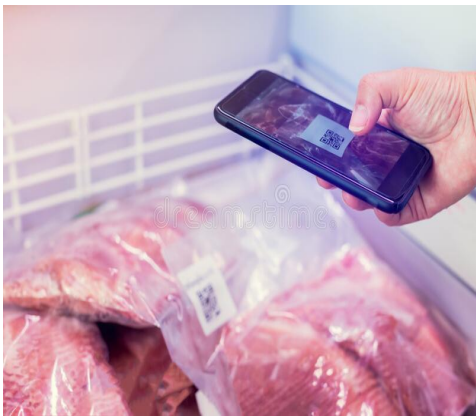|	
3232435	>
56656767	>
135690	>
32567787	>
4657879	>

EXIT →

Other users (Customers) of the PUBLIC System

1. Scan the QR code present on the packaging of selected meat products in stores (Running W).

2. After scanning, customers will be redirected to the page containing the meat produce information for that specific product.

Meat Product Info

Cattle Info– *Ground Beef*

Birth Date: January 10, 2020

Gender: Female

Breed: Angus Hereford Shorthorn

Underlying Health Issues: Grass Tetany

Weight: 729 kg

Location: Starburst Farm

Reproduction Status: 2 calves

Farmer: Tim Bol

Rearing Type: Grass-fed, Free roaming

Type of Antibiotics Used: Penicillin

Slaughter Date: February 1, 2022

Slaughtering Methods Used: Penetrating captive bolt

DNA type: Roman Briton, Aberdeen Angus

Slaughter Location: Spanish Lookout, Belize C.A.

Packaged Date: February 3, 2022

Expiry Date: March 9, 2022 if kept frozen/refrigerated

Packaged/processed by: Belize Beef

Weight of Product: 2kg

Product Description: 90% lean, 10% fat

EXIT →