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CGIS Map Production
Testing Report Specification

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Introduction

Functional requirements for generating maps.

1.1. Dot density
- 1.1.1. Select data set
- 1.1.2. Select various attributes
- 1.1.3. Generate map
- 1.1.4. Manipulate the scale of the maps.
- 1.1.5. Download map as image.

1.2. Proportional symbol
- 1.2.1. Select data set
- 1.2.2. Select various attributes
- 1.2.3. Generate map
- 1.2.4. Manipulate the scale of the maps.
- 1.2.5. Download map as image.

1.3. Choropleth
- 1.3.1. Select data set
- 1.3.2. Select various attributes
- 1.3.3. Generate map
- 1.3.4. Manipulate the scale of the maps.
- 1.3.5. Download map as image.

1.4. Heat map
- 1.4.1. Select data set
- 1.4.2. Select various attributes
- 1.4.3. Generate map
- 1.4.4. Manipulate the scale of the maps.
- 1.4.5. Download map as image.

Non-functional requirements

1.5. Performance.

1.6. Availability.

1.7. Scalability.

1.8. Provide security (confidentiality) for the database and locations.

Use cases Test

Robot framework tests results

1) Introduction:

This report documents the testing outcomes of the CGIS Map Production Project. The testing summary report contains unit test made for the subsystems, and results for the overall testing that has been conducted on the system thus far.The Robot Testing Framework was used to test the overall system.

2) Functional requirements for generating maps.

2.1) Dot density

- **Select data set**
  The user must be able to select a specific dataset from the list of available datasets.
- **Select various attributes**
  After a dataset is selected, the variables associated with that dataset should be available for selection by the user.
- **Generate map**
  The user should be able to generate and view the dot density map.
- **Manipulate the scale of the maps**
  The scale of the dot density map created should be able to scale.
- **Download map as image**
  Once the map has been generated, the user should be able to download it.

2.2) Proportional symbol

- **Select data set**
  The user must be able to select a specific dataset from the list of available datasets.
- **Select various attributes**
  After a dataset is selected, the variables associated with that dataset should be available for selection by the user.
- **Generate map**
  The user should be able to generate and view the proportional map.
- **Manipulate the scale of the maps**
  The scale of the proportional map created should be able to scale.
- **Download map as image**
  Once the proportional map has been generated, the user should be able to download it.

2.3) Choropleth

- **Select data set**
  The user must be able to select a specific dataset from the list of available datasets.

- **Select various attributes**
  After a dataset is selected, the variables associated with that dataset should be available for selection by the user.
- **Generate map**
  The user should be able to generate and view the choropleth map.
- **Manipulate the scale of the maps**
  The scale of the choropleth map created should be able to scale.
- **Download map as image**
  Once the choropleth map has been generated, the user should be able to download it.

2.4) Heat map

- **Select data set**
  The user must be able to select a specific dataset from the list of available datasets.
- **Select various attributes**
  After a dataset is selected, the variables associated with that dataset should be available for selection by the user.
- **Generate map**
  The user should be able to generate and view the heat map.
- **Manipulate the scale of the maps**
  The scale of the heat map created should be able to scale.
- **Download map as image**
  Once the heat map has been generated, the user should be able to download it.

3) Use case Tests

The following are use case tests for CGIS Map Production:

- Test basic **dot density** map production
  - Selecting a **data set** in the dataset dropdown.
  - Select **wrd_ward** attribute in attributes list
  - Click on **generate** map button
  - Select display **Dot Density** button
  - Display **Map key**
  - Zoom **in** and **out** to adjust .
  - **Download** map as image

- Test basic **Proportional Symbol** map production
  - Selecting a data set in the dataset dropdown.
  - Select **ha_toilet_** attribute in attributes list
  - Click on **generate** map button
  - Select display **Proportional Symbol** button
  - Display **Map key**
  - Zoom **in** and **out** to adjust .
  - **Download** map as image

- Test basic **Choropleth map** production
  - Test Selecting a **data set** in the dataset dropdown.
  - Select **ha_energy_** attribute in attributes list

- Click on **generate** map button
- Select display **Choropleth** button
- Display **Map key**
- Zoom **in** and **out** to adjust image .
- **Download** map as image

- Test basic **heat map** production
    - Select a **data set** in the dataset dropdown.
    - Select **ha_water_o** attribute in attributes list
    - Click on **generate** map button
    - Select **display** Heat Map button
    - Zoom **in** and **out** to adjust .
    - Display **Map key**
    - **Download** map as image

4 Robot framework tests results

The following links direct you to the testing results of the robot testing framework used for the Use Case Tests.

https://github.com/roberttrankle/COS301--include/tree/master/Test%20Reports/Logs