Summary Phase 1 Report
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Data Types
A. Users:

Attribute	Data Type	Constraint
<u>Username</u>	String / Char	PK, NOT NULL
Password	String / VarChar	NOT NULL
DisplayName	String / Char	NOT NULL

1. Cert_Member

Attribute	Data Type	Constraint
PhoneNumber	String / VarChar	NOT NULL

2. Resource_Provider

Attribute	Data Type	Constraint
Number	Char	NOT NULL
Street	String / VarChar	NOT NULL
ApartmentNumber	Char	NULL
City	String / Char	NOT NULL
State	String / Char	NOT NULL

3. Admin

Attribute	Data Type	Constraint
Email	String / VarChar	NOT NULL

B. Resources:

Attribute	Data Type	Constraint
Resource_id	String / VarChar	PK, NOT NULL
Resource_name	String / VarChar	NOT NULL
Description	String / Char	NOT NULL
Capabilities	String / Char	NULL
Distance	Decimal (3, 1)	NULL
Cost	Decimal (5, 2)	NOT NULL
Cost_unit	String / Char	NOT NULL
Primary_function	Integer	FK (Function_id), NOT NULL
Owner	String / Char	FK (Username), NOT NULL

4. Function

Attribute	Data Type	Constraint
Function_id	Integer	PK, NOT NULL
Description	String / Char	NULL

C. Incidents:

Attribute	Data Type	Constraint
Incident_id	Int	PK, NOT NULL
Date	Date	NOT NULL
Description	String / VarChar	NOT NULL
Category	Char	FK (Category_id), NOT NULL

Category

Attribute	Data Type	Constraint
Category_id	Int	PK, NOT NULL
Type	String / VarChar	NOT NULL

Business Constraints

General:
- A resource is available if it is not currently being used to respond to an incident.
- New resources entered into the system are available by default.
- In no circumstances should the system allow a resource that is currently in use be deployed to respond to another incident.

Login:
- User must enter at least 1 character in either username or password.
- Both username and password are required.
- User-entered password must match user's password in the database.
  - If not matched, "Invalid login" message pops up on top of screen and redirects user to attempt login again.
  - If matched, user is redirected to the Main Menu.

Main Menu:
- The system must manage user's
  - Display name
  - Username
  - Password
- Must show the user's
  - **display name**:
    - CERT user: **phone number**
    - Resource provider: **US postal address**
    - System administrator: **email address**

Add Resources:
- All CERT users can add resources **one** at a time into the system
- CERT users can add many resources

- User must be able to clear out the form with the top right of form, "+" sign
- Required fields (must be filled out to save):
  - Must have one and only one Primary Function assigned to it
  - Cost field is required
  - Unit field is required
- The list of SFs should NOT include the selected PF.
- PF and SF list must not be hardcoded, they have to come from the database
- Capabilities is an optional field. The list view dynamically expands as the user enters a new capability
- Description is an optional field
- Cost must be in USD and precise 2 decimal places
- Unit must not be hardcoded, it should come from the database

Add Incident:

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Search Results Display:
- Results are displayed based on the resource's distance from PCC (closest first).
- If distance has no values, that particular resource displays at the bottom of the form.
- Search Results heading is similar to spreadsheet columns.
- Search Results are read-only loaded via HTTP GET request.

Generating Resource Report:
- Report Layout
  - Resource Report: title that is displayed at the top of the form.
  - Primary function (PF) #: goes up from 1.
  - PF: a brief description of the PF in the database.
  - Total Resources: aggregated number of all of the resources belonging to each PF in the system.
  - Total: aggregated number of all resources across all PFs in the system.
- Report only includes the PF for each resource in the system owned by the current, logged-in user. No secondary functions are considered in this report.
- Total Resources field will display 0 for a PF if there are no resources owned by the current, logged-in user.

Markup Annotations
- **Bold Underline: Form.**

- **Bold Italics: Buttons / Input Fields.**
- **Bold: Task.**
- Italics: Form Input fields / Column names in tabulated form.
- $XYZ: Database field/column named 'XYZ'.

Task Decomposition with Abstract Code: Main Menu