Lab 2

Entity-Relationship diagrams.

Use the following information to complete Level 1 and Level 2 data flow diagrams for the PHTRS.

Once submitted, pot hole reports get verified for completeness and accuracy of the pot hole location information against the city street database. Verified reports are then recorded in a pot hole database. Incomplete or inaccurate reports are dropped.

The process responsible for pothole repair management function receives a notification whenever a new pot hole description is added to the pot hole database. This process creates an initial work order for the pot hole repair. The work order includes a work crew assignment. The work order database that contains work crew assignment information is consulted in order to determine work crew availability. Once a work crew assignment is determined, an initial work order is completed and inserted into the work order database. The work crew manager is automatically notified about the assignment by email.

When a work crew submits a progress report that includes information on the status of the repair work, amount of materials and work hours spent on it, the work order information recorded in the work order database gets updated.

When a pot hole report is requested, information about the pot holes and their repair is derived from the appropriate data stores and combined in a report. Work crew reports may include information about each crew member's salary and work assignments during a designated time period.

Using Visible Analyst (VA) complete the following modeling steps. Underlined words correspond to the VA commands and options with the same name.

1. **Complete level 1 and one level 2 Data flow diagrams.**
   You will need to add appropriate data stores and data flows to the diagrams to demonstrate how the system would handle the tasks outlined in the description above.

   You may need to update other diagrams as well.

   **Split** net input data flows into subflows where necessary.

   **Analyze** the diagrams for inconsistencies and correct all errors.

2. **Explore various repository report options. Create a detailed report on the Data Flow Diagrams.**
3. Identify the entities that must be represented in the system and create an Entity Relationship Diagram

(a) Your ERD diagram does not need to specify attributes of each entity completely at this point, but must depict relationships of the entities.