**1. Introduction**

**1.1 Purpose**

Sample Document for Fetches Order Data from Order\_details table and inventory\_details tables and Stores in dynamic array for displaying order items with details.

**1.2 Scope**

The design covers the retrieval and display of order information based on a fixed order\_id..

**2. Functional Requirements**

**2.1 Process**

1. **Retrieve Order Details**: Fetch details of items from the order\_details table and their corresponding locations from the inventory table based on order\_id.
2. **Store in Array**: Save the fetched order details in a dynamic array.
3. **Display Results**: Output the item ID, quantity, and location for each item in order.

**2.2 User Roles**

* **Warehouse Staff**: No specific interaction required for this script, as it is a backend process.

**3. Technical Design**

**3.1 System Overview**

* **Database**: Informix Database (Sample test Database).
* **Script**: Informix 4GL script to process and display order details.

**3.2 Database Design**

* **Tables**:
  1. order\_details - Contains details about each order (columns: item\_id, quantity, order\_id).
  2. inventory - Contains inventory details (columns: item\_id, location).
* **Key Fields**:
  1. item\_id (Common key between order\_details and inventory)
  2. order\_id (Used to filter the orders)

**3.3 Informix 4GL**

**3.3.2 Components**

* **DEFINE Statements**:
  1. order\_id: Holds the specific order ID.
  2. item\_record: A record structure to temporarily hold fetched data.
  3. order\_items: A dynamic array to store all fetched items.
* **DECLARE c\_order CURSOR FOR**:

Defines the cursor to select item details and locations based on the order\_id.

* **OPEN c\_order**:

Opens the cursor for fetching data.

* **FETCH c\_order INTO item\_record.\***:
  + Retrieves data from the cursor into item\_record and appends it to order\_items.
* **WHILE sqlca.sqlcode = 0**:
  + Continuously fetches records until no more records are available.
* **CLOSE c\_order**:
  + Closes the cursor after fetching all data.
* **FOR i = 1 TO ARRAY\_LENGTH(order\_items)**:
  + Iterates through the order\_items array to display each item’s details.

**3.4 Error Handling**

* **Cursor Fetch Errors**: Handles errors by checking sqlca.sqlcode to determine if fetching was successful.
* **Logging**: Logging will be added based on requirements.

**4. Integration Points**

* **Database**: Interacts with order\_details and inventory tables in Sample Test DB.

**5. User Interface**

* **Display Output**: Outputs the details of each item in the order to the console or standard output.

**6. Performance Considerations**

* **Cursor Management**: Ensures efficient use of cursor and dynamic array to handle potentially large result sets.

**7. Testing**

* **Unit Testing**: Test the script with various order\_id values to ensure correct data retrieval and display.
* **Integration Testing**: Verify that the script correctly interacts with the order\_details and inventory tables.