

## HVAV Database Development Analysis

3-2-22

### Client Requirements

1. Store Client Data (Primary Key: client\_ID)
  - a. Client type (corporate, small business, nonprofit...)
  - b. Client company name
  - c. Client first name
  - d. Client last name
  - e. Client email
  - f. Client address
  - g. Client phone
  - h. Client Notes
2. Store Employee Data (Primary Key: employee\_ID)
  - a. Employee title
  - b. Security level (Get from Security Table: security\_level\_ID\_fk)
  - c. Employee first name
  - d. Employee last name
  - e. Employee email
  - f. Client ID [If applicable] Can be null here. (Get from Client Table: client\_ID\_fk)
3. Store Event Order (Primary Key: event\_order\_ID)
  - a. Client Name (Foreign Key: Get from Client Data Table: client\_ID\_fk)
  - b. Venue Name (Foreign Key: Get from Venue Table: venue\_ID\_fk)
  - c. Products (Foreign Key: Get from Product Table: product\_ID\_fk)
  - d. Services (Foreign Key: Get from Service Table: service\_ID)
  - e. Event type
  - f. Profit or nonprofit status
  - g. Order date
  - h. Event start/end dates
  - i. Event start/end times
  - j. Number of trucks needed
  - k. Number of techs needed
  - l. Setup date
  - m. Breakdown date
  - n. Load time for truck
  - o. On site time for truck
  - p. Who created the order
  - q. Event Order notes
4. Generate Invoice (Primary Key: invoice\_ID)
  - a. Business name and address (HVAV, Modena)

- b. Client name and address (Get from Client Data Table: client\_ID\_fk)
  - c. Event order information: (Get from Event Order Table: event\_order\_ID\_fk)
    - i. Event date
    - ii. Event order number
    - iii. Venue information
    - iv. Description of products delivered [(Get from Product Table (?)]
      - 1. Quantity of each item ordered
      - 2. Unit price of each items
      - 3. Extended price of each item ordered (5 items @ \$x/item = \$5x due)
    - v. Description of services rendered
      - 1. Quantity of hours worked
      - 2. Unit price per hour
      - 3. Extended price for each service
  - d. Invoice date
  - e. Payment terms
  - f. Date payment is due
  - g. Tax rate amount
  - h. Amount of sales tax due
  - i. Total amount due in USD
  - j. Payment information (cash, check, credit card)
- 5. Generate Invoice List (Primary Key: invoice\_list\_ID)
  - a. Product ID (Foreign Key: Get from Product Table: product\_ID\_fk)
  - b. Invoice ID (Foreign Key: Get from Invoice Table: invoice\_ID\_fk)
- 6. Generate Packing List (Primary Key: packing\_list\_ID)
  - a. Product ID (Foreign Key: Get from Product Table: product\_ID\_fk)
  - b. Invoice ID (Foreign Key: Get from Invoice Table: invoice\_ID\_fk)
  - c. Employee ID (Foreign Key: Get from Employee Table: event\_order\_ID\_fk)
- 7. Product (Primary Key: product\_ID)
  - a. Product type (audio, video, ...)
  - b. Product name
  - c. Description
  - d. Make
  - e. Model
  - f. Quantity in stock
  - g. Quantity unit
  - h. Is promotional (free add-on item)
  - i. Unit price
  - j. Discounted price
  - k. Number rented
  - l. Number broken

8. Service (Primary Key: service\_ID)
  - a. Service type (setup/breakdown, staging, onsite AV...)
  - b. Service description
  - c. Service name
  - d. Number of techs needed
  - e. Number of onsite AV techs needed
  - f. Service cost
  - g. Hourly rate
  - h. Number of hours needed
9. Payment (Primary Key: payment\_ID)
  - a. Invoice number (Foreign Key: Get from Invoice Table)
  - b. Payment date
  - c. Payment method
  - d. Amount paid
  - e. Is preauthorized (for credit cards)
  - f. Balance due
10. Security (Primary Key: security\_ID)
  - a. Security level type (administrator, manager, staff, user)
11. Vendor (Primary Key: vendor\_ID)
  - a. Company name
  - b. Contact first name
  - c. Contact last name
  - d. Contact email
  - e. Company address
  - f. Phone number
  - g. Vendor notes
12. Venue (Primary Key: venue\_ID)
  - a. Venue type (business, private home,...)
  - b. Venue name (can be null)
  - c. Contact first name
  - d. Contact last name
  - e. Contact email
  - f. Venue address
  - g. Venue phone number
  - h. Venue notes

## DATABASE CHECK

- Are all the requirements the customer asked for in the first iteration included? Yes
- Does every table have a primary key? Yes
- Are all the non-key attributes in each table functionally dependent on a primary key?
  - Client: yes
  - Employee: yes
  - Event Order: yes
  - Invoice: yes
  - Invoice List: yes
  - Packing List: yes
  - Product: yes
  - Service: yes
  - Payment: yes
  - Security: yes
  - Vendor: yes
  - Venue: yes