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PDF Report Submission #1

A Database Management System (DBMS) is the collection and storage of data into a system designed to handle, manipulate, and retrieve and managing the data. The main components of a DBMS are the end user, the application or software, the database itself, and tables within the database. The functional components of a DBMS are a dictionary, data storage, security, Data backup and recovery, access language for interacting with the data within a database, Integrity rules and management, and communication interfaces. Traditionally, databases are accessed by Structured Query Language. SQL is a declarative, 4th generation programming language that is interpretive and declarative, but not imperative or compiled. Another language called NoSQL is sometimes used for nontraditional databases such as when object-oriented models are needed.

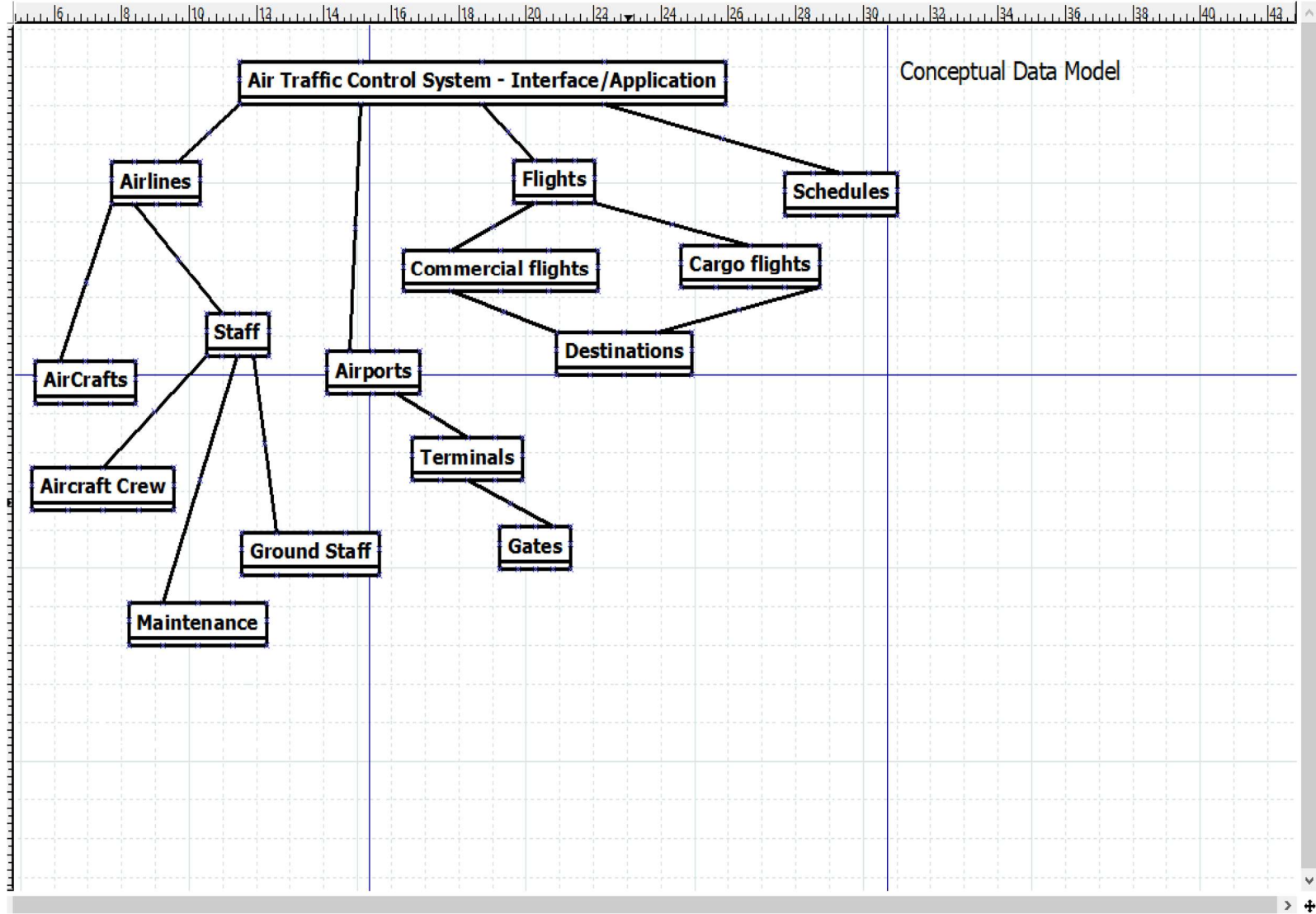ind_o\Pictures) - diaw.exe — □ ✕

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Conceptual Data Model

Air Traffic Control System - Interface/Application

Airlines

Flights

Schedules

Commercial flights

Cargo flights

Staff

Destinations

AirCrafts

Airports

Aircraft Crew

Terminals

Ground Staff

Gates

Maintenance

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Air Traffic Control System - Interface/Application

Logical Data Model

Airlines
- Airline Name
- Airline ID
- Partnerships
- Military?

Flights
- Flight #
- Airline
- Departure Location
- Arrival Location

Schedules
- Flight Status
- Runways
- Flight #s
- Personell

AirCrafts
- Type
- Model
- Cabin Capacity
- Load Limit
- Fuel Level

Staff

Airports
- Location
- ID
- # of Runways

Commercial flights
- Flight #
- InterNatl / Dmestic
- Priority
- Status

Cargo flights
- Aircraft Type
- Hazmat
- Cargo Type
- Priority

Aircraft Crew
- Pilot
- Flight Attendant
- Name
- DOB
- Employee ID

Ground Staff
- Groundman
- Baggage Handler
- Name
- Employee ID

Terminals
- Terminal ID

Maintenance
- Mechanic
- Electrician
- Systems Tech
- Name
- Employee ID

Gates
- Gate Number

Destinations
- City
- State
- Country
- Airport