Airport Management System

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ER Diagram Description:

The following ER diagram depicts the database for an airport management system. In this diagram, entity types are written in a rectangular box and their attributes are encircled. The relationships between these entity types are shown in a diamond shape. For participation constrain, Mandatory participation is shown by double lines whereas optional is shown by a single line. Key attributes of entity types are underlined.

In this ER diagram entity types such as passenger, flight, baggage& cargo, airline, runway, and gate data, etc. are included.

Entity type passenger and flight are connected by a relationship “Travels_in” with cardinality many to one. All other entity types are connected in the same manner.

Tickets purchased by a passenger should have details about their class and price. The ticket entity type has two key attributes which are seat_no and flight_no.

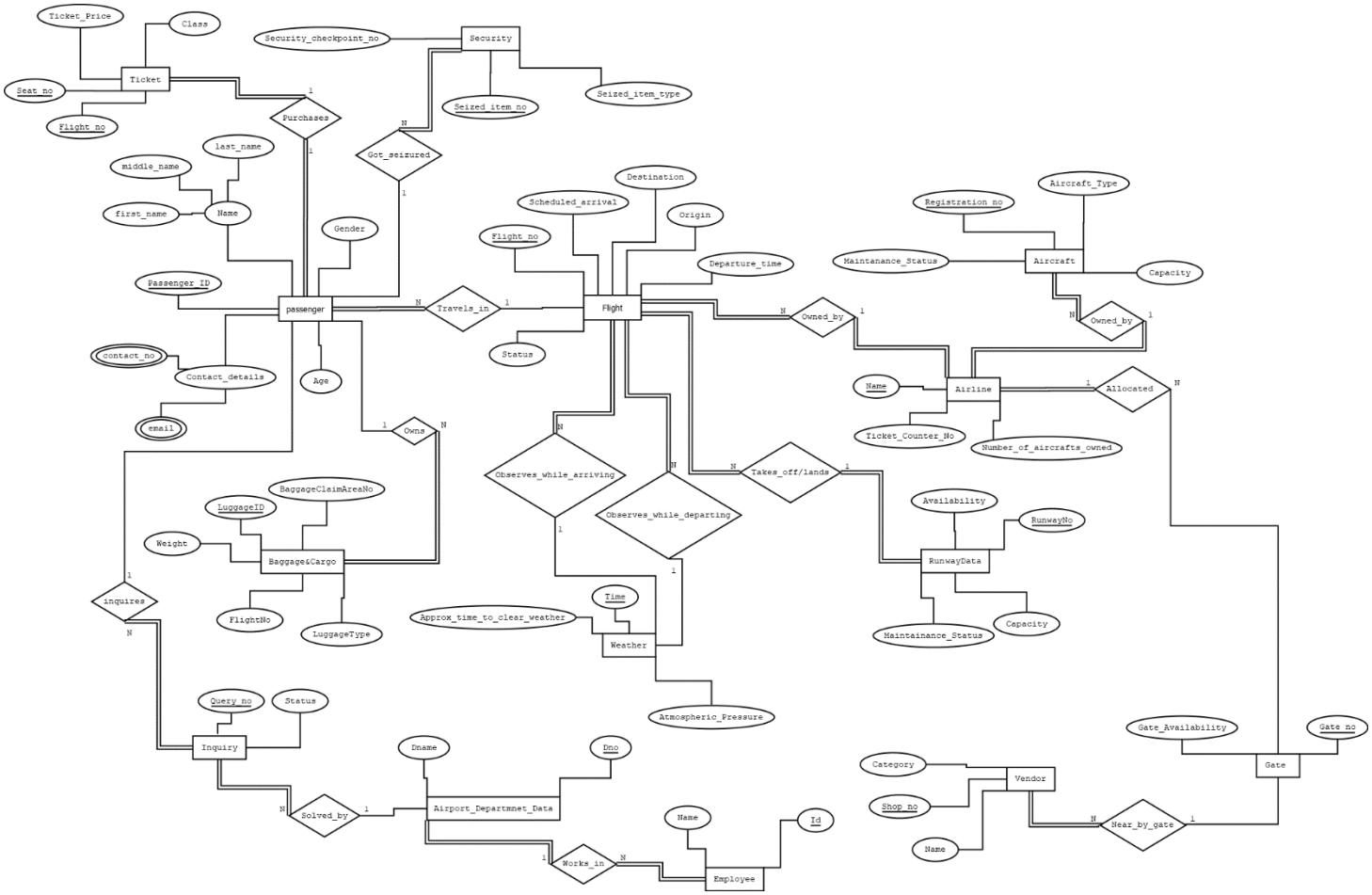
If some passenger’s item is seized by the security, it is recorded by the “Got_seizured” relationship. The cardinality of this relationship is one to many.

If a passenger has any inquiry, then it is recorded in the “Inquiry” entity type and identified by a relationship called “Inquires”, with cardinality one to many. These inquiries are solved by the Airport Department entity type.

Before any arrival or departure of a flight, runway, and gate availability along with weather should be checked.

Flights of a particular airline are required to arrive/depart only from the allocated gates of an airport. For which entity types are connected with the “Allocated” relationship. Similarly, gates are allocated to the vendors in the airport to set up their shops.

Flight details such as aircraft type and owner airlines have been captured in this diagram.


Ticket_Price
Class
Security_checkpoint_no
Security
Ticket
Seat_no
Flight_no
Seized_item_no
Seized_item_type
Purchases
Got_seizured
middle_name
last_name
first_name
Name
Gender
Passenger_ID
passenger
Travels_in
Destination
Scheduled_arrival
Origin
Flight_no
Departure_time
Flight
Status
Registration_no
Aircraft_Type
Maintanance_Status
Aircraft
Capacity
Owned_by
Owned_by
contact_no
Contact_details
email
Age
Owns
Name
Airline
Allocated
Ticket_Counter_No
Number_of_aircrafts_owned
Observes_while_arriving
Observes_while_departing
Takes_off/lands
BaggageClaimAreaNo
LuggageID
Weight
Baggage&Cargo
FlightNo
LuggageType
inquires
Availability
RunwayNo
RunwayData
Maintainance_Status
Capacity
Time
Approx_time_to_clear_weather
Weather
Atmospheric_Pressure
Query_no
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Gate
Category
Vendor
Shop_no
Name
Near_by_gate