

Airline database design

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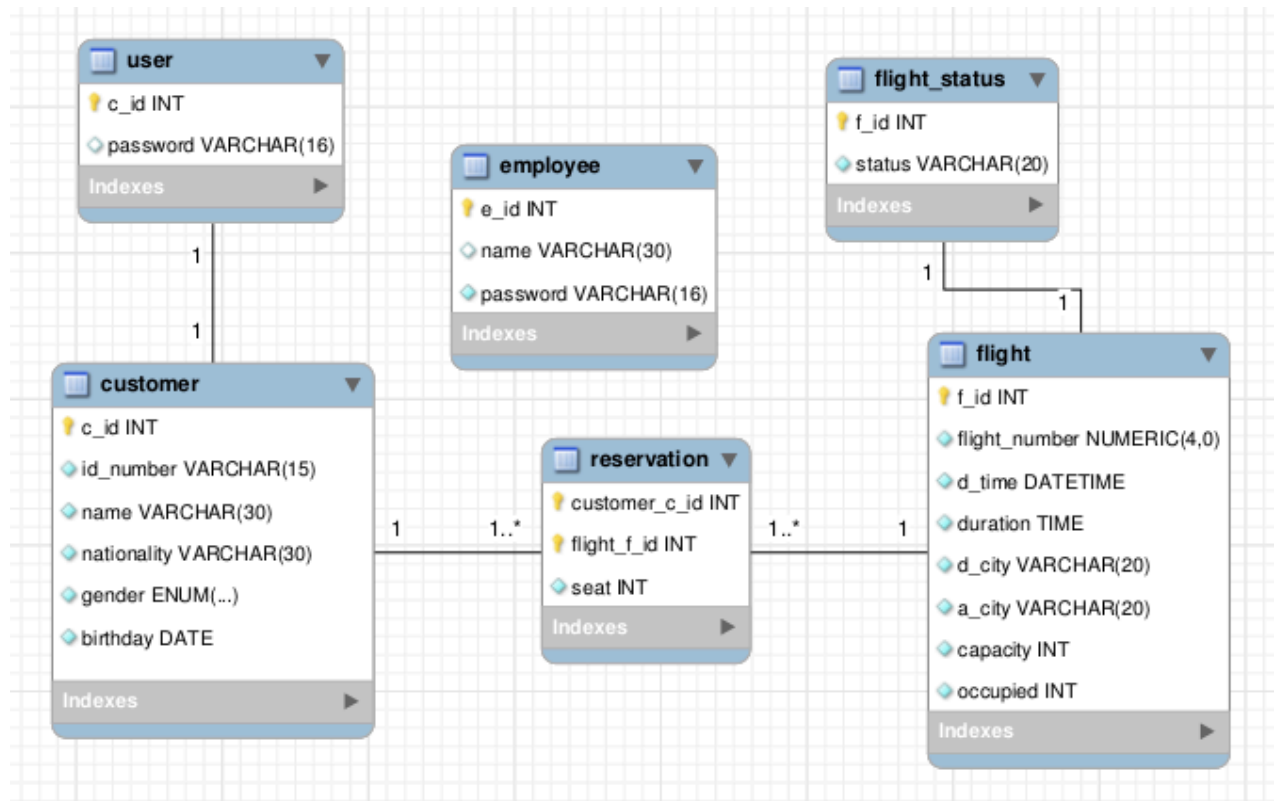
1 Purpose of the database

This database is aimed at managing customers and their reservations, flights and their status, seat assignments on various flights, and the schedule and routing of individual flights for an airline company.

This database is quite compact compared to the design in industry. For example, the seats assignment are simplified, and flight routes are restricted to two cities.

Tables for password storage are included, while the implementation of login would be available in assignment 6 submission.

2 UML



3 Data dictionary

Table 1: employee table

Attribute	Domain&size	Description	Default value	Nullable	Constraints
e_id	int		auto-increment	not null	primary key
password	varchar(16)		same as c_id	not null	length 8 – 16
name	varchar(30)			not null	

Table 2: user table

Attribute	Domain&size	Description	Default value	Nullable	Constraints
c_id	int		auto-increment	not null	primary key
password	varchar(16)		same as c_id	not null	length 8 – 16

Table 3: customer table

Attribute	Domain&size	Description	Default value	Nullable	Constraints
c_id	int		auto-increment	not null	primary key
id_number	varchar(15)	photo id number		not null	
name	varchar(30)			not null	
nationality	varchar(30)			not null	
gender	enum			not null	
birthday	date			not null	

Table 4: reservation table

Attribute	Domain&size	Description	Default value	Nullable	Constraints
c_id	int	customer id	auto-increment	not null	foreign key
f_id	int	flight id	auto-increment	not null	foreign key
seat	int		auto-increment	not null	

Table 5: flight table

Attribute	Domain&size	Description	Default value	Nullable	Constraints
f_id	int		auto-increment	not null	primary key
flight_number	numeric(2, 0)	photo id number		not null	
d_time	datetime	departure local time		not null	
duration	time			not null	
d_city	varchar(20)	city of depature		not null	
a_city	varchar(20)	city of destination		not null	
capacity	int	seat number		not null	
occupied	int		0	not null	

Table 6: flight_status table

N.B. status include *airborne, boarding, delay, arrival, canceled and scheduled*.

Attribute	Domain&size	Description	Default value	Nullable	Constraints
f_id	int		auto-increment	not null	primary key
status	enum		scheduled	not null	