Project Part 3 -- Nathan Smith and Kristen Massey

CREATE TABLE airport (

airport\_code VARCHAR(6) UNIQUE NOT NULL,

airport\_name VARCHAR(50),

city VARCHAR(25),

state VARCHAR(2),

PRIMARY KEY (airport\_code)

);

CREATE TABLE flights (

flight\_number INTEGER UNIQUE NOT NULL AUTO\_INCREMENT,

airline VARCHAR(25),

fare\_code INTEGER NOT NULL,

start\_airport\_code VARCHAR(6) NOT NULL,

end\_airport\_code VARCHAR(6) NOT NULL,

PRIMARY KEY (flight\_number),

FOREIGN KEY (start\_airport\_code) REFERENCES airport(airport\_code),

FOREIGN KEY (end\_airport\_code) REFERENCES airport(airport\_code),

FOREIGN KEY (fare\_code) REFERENCES fares(fare\_code)

);

CREATE TABLE fares (

fare\_code INTEGER UNIQUE NOT NULL AUTO\_INCREMENT,

fare\_cost DECIMAL (5,2),

fare\_restrictions VARCHAR(1000),

PRIMARY KEY (fare\_code),

);

CREATE TABLE flight\_fares(

fare\_code INTEGER NOT NULL,

flight\_number INTEGER NOT NULL,

FOREIGN KEY fare\_code REFERENCES fares(fare\_code),

FOREIGN KEY flight\_number REFERENCES flights(flight\_number)

);

CREATE TABLE airplane (

tail\_number INTEGER UNIQUE NOT NULL,

seat\_number INTEGER,

model VARCHAR(25) NOT NULL,

CHECK (seat\_number < max\_seat\_number),

PRIMARY KEY (tail\_number),

FOREIGN KEY (model) REFERENCES airplane\_type(model)

);

CREATE TABLE airplane\_type (

model VARCHAR(25) UNIQUE NOT NULL,

manufacturer VARCHAR(25),

max\_seat\_number INTEGER,

PRIMARY KEY (model)

);

CREATE TABLE leg\_schedule (

leg\_number INTEGER UNIQUE NOT NULL AUTO\_INCREMENT,

flight\_number INTEGER NOT NULL,

start\_airport\_code VARCHAR(6) NOT NULL,

end\_airport\_code VARCHAR(6) NOT NULL,

scheduled\_departure\_time VARCHAR(20),

scheduled\_arrival\_time VARCHAR(20),

date VARCHAR(20),

available\_seat\_number INTEGER,

PRIMARY KEY (leg\_number),

FOREIGN KEY (flight\_number) REFERENCES flights(flight\_number),

FOREIGN KEY (start\_airport\_code) REFERENCES airport(airport\_code),

FOREIGN KEY (end\_airport\_code REFERENCES airport(airport\_code)

);

CREATE TABLE leg\_instance (

leg\_number UNIQUE INTEGER NOT NULL,

flight\_number INTEGER NOT NULL,

actual\_departure\_time VARCHAR(20),

actual\_arrival\_time VARCHAR(20),

tail\_number INTEGER NOT NULL,

date VARCHAR(20)

PRIMARY KEY(leg\_number),

FOREIGN KEY (flight\_number) REFERENCES flights(flight\_number),

FOREIGN KEY (tail\_number) REFERENCES airplane(tail\_number),

FOREIGN KEY (leg\_number) REFERENCES leg\_schedule(leg\_number)

);

CREATE TABLE seats (

seat\_number VARCHAR(4) NOT NULL,

passenger\_name VARCHAR(20),

passenger\_phone INTEGER,

flight\_number INTEGER NOT NULL,

leg\_number INTEGER NOT NULL,

available CHAR(1),

FOREIGN KEY (flight\_number) REFERENCES flights(flight\_number),

FOREIGN KEY (leg\_number) REFERENCES leg\_instance(leg\_number)

);

CREATE TABLE flight\_days (

flight\_number INTEGER NOT NULL,

monday CHAR(1),

tuesday CHAR(1),

wednesday CHAR(1),

thursday CHAR(1),

friday CHAR(1),

saturday CHAR(1),

sunday CHAR(1),

FOREIGN KEY (flight\_number) REFERENCES flights(flight\_number)

);

CREATE TABLE landing\_allowances (

model VARCHAR(20) NOT NULL,

airport\_code VARCHAR(6) NOT NULL,

allowed CHAR(3) NOT NULL

FOREIGN KEY (model) REFERENCES airplane\_type(model),

FOREIGN KEY (airport\_code) REFERENCES airport(airport\_code)

);