**Create table**

DROP TABLE IF EXISTS airport,aircraft,jobs,employee,luggage,luggageStatus,flight,payments,Ticket,passengers,flightstatus;

CREATE TABLE airport(

airport\_ID INT NOT NULL UNIQUE,

airport\_Name VARCHAR(36) PRIMARY KEY,

city VARCHAR(36)

);

create table aircraft(

airport\_ID INT NOT NULL,

aircraft\_id INT NOT NULL UNIQUE,

model VARCHAR(36),

FOREIGN KEY (airport\_ID) REFERENCES airport(airport\_ID)

);

CREATE TABLE flightStatus(

flight\_Status\_code INT NOT NULL UNIQUE,

flight\_Status VARCHAR(36) NOT NULL

);

CREATE TABLE flight(

aircraft\_id INT NOT NULL,

flight\_Status\_code INT NOT NULL,

FOREIGN KEY (aircraft\_id) REFERENCES aircraft(aircraft\_id),

FOREIGN KEY (flight\_Status\_code) REFERENCES flightStatus(flight\_Status\_code)

);

CREATE TABLE Jobs(

job\_ID INT NOT NULL ,

job\_Name VARCHAR(36) NOT NULL UNIQUE

);

CREATE TABLE employee(

emp\_ID INT NOT NULL,

emp\_Name VARCHAR(36) NOT NULL,

airport\_Name VARCHAR(36) NOT NULL,

Job\_Name VARCHAR(36) NOT NULL,

Salary INT NOT NULL,

emp\_Address VARCHAR(36) NOT NULL,

hire DATE,

UNIQUE (emp\_ID,emp\_Address),

FOREIGN KEY (airport\_Name) REFERENCES airport(airport\_Name),

FOREIGN KEY (Job\_Name) REFERENCES Jobs(job\_Name)

);

CREATE TABLE passengers(

airport\_ID INT NOT NULL,

aircraft\_id INT NOT NULL,

pass\_id INT NOT NULL UNIQUE,

pass\_Name VARCHAR (36) NOT NULL,

pass\_Surname VARCHAR(36) NOT NULL,

age INT NOT NULL,

FOREIGN KEY (airport\_ID) REFERENCES airport(airport\_ID),

FOREIGN KEY (aircraft\_id) REFERENCES aircraft(aircraft\_id)

);

CREATE TABLE Ticket (

order\_Num INT NOT NULL,

pass\_id INT NOT NULL,

passenger\_Name VARCHAR(36),

passenger\_surName VARCHAR(36),

Price INT NOT NULL,

seat INT NOT NULL,

from\_city VARCHAR(36),

to\_destination VARCHAR(36),

FOREIGN KEY (pass\_id) REFERENCES passengers(pass\_id)

);

CREATE TABLE payments(

payment\_id INT NOT NULL PRIMARY KEY,

pass\_id INT NOT NULL,

payment\_status VARCHAR(36) NOT NULL,

payment\_date DATE NOT NULL

);

CREATE TABLE luggageStatus(

luggage\_Status\_code INT NOT NULL UNIQUE ,

luggage\_Status VARCHAR(36) NOT NULL

);

CREATE TABLE luggage(

luggage\_id INT NOT NULL UNIQUE,

pass\_id INT NOT NULL,

luggage\_Status\_code INT NOT NULL ,

FOREIGN KEY (pass\_id) REFERENCES passengers(pass\_id),

FOREIGN KEY (luggage\_Status\_code) REFERENCES luggageStatus(luggage\_Status\_code)

);

**INSERT**

INSERT INTO airport VALUES (1001,'Nursultan Nazarbayev','Nur-Sultan'),(1002,'Almaty','Almaty'),(1003,'Shymkent','Shymkent');

INSERT INTO aircraft VALUES (1001,149,'Boeing 767-300ER'),(1001,287,'Boeing 757-200'),(1001,423,'Airbus A321neo LR'),(1001,346,'Embraer E190-E2'),(1002,749,'SCAT Boeing 737-500'),(1002,741,'Boeing 767'),(1002,246,'АН-24'),(1002,534,'Boeing-777'),(1003,326,'Embraer 190'),(1003,865,'Airbus A320/321');

INSERT INTO jobs VALUES (01,'Pilot'),(02,'Stewardess'),(03,'Air traffic controller'),(04,'Transportation Security Screener'),(05,'Aeronautical Engineer'),(06,'Airport Manager'),(07,'Aircraft and Avionics Mechanic'),(08,'Fireman'),(09,'Medic'),(10,'Co-pilot');

INSERT INTO employee VALUES (247, 'Berik Samal', 'Almaty','Medic',549.15,'Kuishi Dina 41','2015-11-13'),

(108,'Aizhan Kulchinova','Shymkent','Stewardess',651.47,'38street 12','2018-09-17'),

(598,'Viktor Kostyliev','Nursultan Nazarbayev','Pilot',1000,'Uly Dala 54/1','2010-01-14'),

(610,'Vasiliy Bondarchuk','Nursultan Nazarbayev','Co-pilot',751.49,'Imanova 31','2013-04-25'),

(759,'Aidana Karova','Shymkent','Stewardess',601.12,'Sauran 13/2','2019-10-02'),

(769,'Dias Amanbaev','Nursultan Nazarbayev','Air traffic controller',851.15,'Pushkina 14/1','2009-04-24'),

(755,'Daniar Abaev','Almaty','Aeronautical Engineer',951.84,'Koshkarbaev 32','2011-01-15'),

(804,'Aidar Baktybay','Almaty','Airport Manager',1203.51,'Abay 12','2010-10-16'),

(448,'Aruzhan Bahova','Nursultan Nazarbayev','Transportation Security Screener',702.12,'Jumabaeva 17','2018-07-15'),

(904,'Miras Anuarbekov','Nursultan Nazarbayev','Aircraft and Avionics Mechanic',900,'E-120 15/4','2012-08-02'),

(248,'Darya Maratova','Shymkent','Medic',615.12,'Momyshuly 19','2015-01-10');

INSERT INTO flightstatus VALUES (01,'Success'),(02,'Cancelled'),(03,'Delay'),

(04,'Emergency landing'),(05,'Technical problems'),(06,'fire');

INSERT INTO flight VALUES (287,01),(149,03),(865,01),(246,05),

(423,04),(865,01),(534,02),(346,06),(749,01),(741,03);

INSERT INTO passengers VALUES

(1001,149,45618,'Arman','Sapargaliev',32),

(1001,287,21795,'Kaisar','Faiznurov',25),

(1002,741,47891,'Asylzhan','Bazylbek',18),

(1003,326,42789,'Sabyrzhan','Baiseitov',55),

(1001,149,98753,'Samal','Aitkalieva',39),

(1002,741,24923,'Aruzhan','Darova',23),

(1003,326,57841,'Alibek','Kadyrali',15),

(1001,287,98731,'Jambyl','Basiev',44),

(1002,749,72419,'Assel','Abiyeva',22),

(1003,326,45497,'Maksat','Karsat',49);

INSERT INTO luggagestatus VALUES

(01,'Success'),

(02,'A lot of Liquid'),

(03,'Guns'),

(04,'Toxic stuff'),

(05,'Drugs'),

(06,'Alcohol');

INSERT INTO luggage VALUES

(513,45618,01),

(514,21795,01),

(515,47891,02),

(516,42789,01),

(517,98753,06),

(518,24923,01),

(519,57841,03),

(520,98731,04),

(521,72419,02),

(522,45497,05);

INSERT INTO payments VALUES

(2000,45618,'Success','2020-11-18'),

(2001,21795,'Success','2020-10-12'),

(2002,47891,'Failed','2020-04-14'),

(2003,42789,'Pending','2018-01-12'),

(2004,98753,'Success','2015-07-24'),

(2005,24923,'Failed','2019-05-16'),

(2006,57841,'Success','2016-06-16'),

(2007,98731,'Failed','2017-01-03'),

(2008,72419,'Pending','2015-04-24'),

(2009,45497,'Success','2014-01-19');

INSERT INTO ticket VALUES

(315,45618,'Arman','Sapargaliev',100,16,'Astana','Almaty'),

(316,21795,'Kaisar','Faiznurov',108,24,'Almaty','Astana'),

(317,47891,'Asylzhan','Bazylbek',98,17,'Moscow','Astana'),

(318,42789,'Sabyrzhan','Baiseitov',120,12,'Shymkent','Astana'),

(319,98753,'Samal','Aitkalieva',105,13,'Kiev','Astana'),

(320,24923,'Aruzhan','Darova',85,15,'Almaty','Shymkent'),

(321,57841,'Alibek','Kadyrali',110,22,'Kyzylorda','Aktau'),

(322,98731,'Jambyl','Basiev',111,14,'Aktobe','Almaty'),

(323,72419,'Assel','Abiyeva',94,15,'Oskemen','Semey'),

(324,45497,'Maksat','Karsat',94,16,'Oskemen','Semey');

**UPDATE**

UPDATE employee SET salary=salary\*1.1 where hire<'2013-01-01';

UPDATE employee SET emp\_address='Abay 25/1' WHERE emp\_id=759;

UPDATE employee SET emp\_address='Sauran 15/1' WHERE emp\_id=598;

UPDATE flight SET flight\_status\_code=2 WHERE aircraft\_id=287;

UPDATE flightstatus SET flight\_status='Fire' WHERE flight\_status\_code=6;

UPDATE luggage SET luggage\_status\_code=2 where pass\_id=45618;

UPDATE payments SET payment\_status='Success' where pass\_id=42789;

UPDATE Ticket SET seat=15 where order\_num=315;

UPDATE payments SET payment\_status='Failed' WHERE pass\_id=72419;

**ALTER TABLE**

ALTER TABLE aircraft ALTER model SET NOT NULL;  
ALTER TABLE employee RENAME TO staffer;  
ALTER TABLE staffer RENAME COLUMN hire TO hire\_date;

ALTER TABLE jobs ADD avg\_salary INT;

**SUBQUERIES**

SELECT MAX(salary)

FROM staffer

WHERE Salary NOT IN ( SELECT Max(Salary) FROM staffer);

SELECT emp\_id, emp\_name,salary

FROM staffer

WHERE salary>(SELECT AVG(salary) FROM staffer);

SELECT airport\_id,pass\_id,pass\_name,pass\_surname

FROM passengers

WHERE pass\_id IN (SELECT pass\_id FROM ticket WHERE to\_destination='Astana');

SELECT emp\_id,emp\_name,salary,hire\_date

FROM staffer

WHERE(salary,hire\_date) IN (SELECT salary,hire\_date FROM staffer WHERE hire\_date>'2015-11-11' GROUP BY hire\_date,salary ORDER BY salary ASC);

SELECT airport\_id,pass\_id,pass\_name,pass\_surname

FROM passengers

WHERE pass\_id NOT IN(SELECT pass\_id FROM payments WHERE pass\_id<1117)

**10 queries**

SELECT passengers.pass\_id,passengers.pass\_name,passengers.pass\_surname,luggage.luggage\_status\_code,payments.payment\_status

FROM ((luggage

INNER JOIN passengers ON passengers.pass\_id=luggage.pass\_id)

INNER JOIN payments ON payments.pass\_id=passengers.pass\_id);

SELECT aircraft.aircraft\_id,aircraft.model,airport.airport\_name,airport.city,flight.flight\_status\_code,flightstatus.flight\_status

FROM aircraft

INNER JOIN airport ON airport.airport\_id=aircraft.airport\_id

INNER JOIN flight ON flight.aircraft\_id=aircraft.aircraft\_id

INNER JOIN flightstatus ON flight.flight\_status\_code=flightstatus.flight\_status\_code;

SELECT passengers.pass\_id,passengers.pass\_name,passengers.pass\_surname,passengers.age,ticket.seat,ticket.price

FROM passengers

RIGHT JOIN ticket ON passengers.pass\_id=ticket.pass\_id;

SELECT passengers.pass\_id,passengers.pass\_name,passengers.pass\_surname,passengers.age,payments.payment\_status,payments.payment\_date

FROM passengers

LEFT JOIN payments ON passengers.pass\_id=payments.pass\_id;

SELECT\*FROM staffer WHERE hire\_date BETWEEN '2010-01-01' AND '2015-01-01';

SELECT DISTINCT emp\_name,job\_name,MIN(salary) FROM staffer group by job\_name,emp\_name;

SELECT sum(price) FROM ticket AS TOTAL\_SPENT\_$;

SELECT COUNT(payment\_status) FROM payments WHERE payment\_status='Failed';

SELECT\*FROM passengers WHERE pass\_name LIKE 'A%';

SELECT airport\_id, COUNT(\*) FROM aircraft group by airport\_id;