**DDLs**

CREATE TABLE IF NOT EXISTS `Airport` (

`area\_name` varchar(50) NOT NULL,

`ap\_name` varchar(50) NOT NULL,

`ap\_location` varchar(50) NOT NULL,

`ap\_abbrev` varchar(5) NOT NULL,

PRIMARY KEY (`ap\_name`),

KEY `area\_name` (`area\_name`)

) ENGINE=InnoDB DEFAULT CHARSET=latin1;

ALTER TABLE `Airport`

ADD CONSTRAINT `Airport\_ibfk\_1` FOREIGN KEY (`area\_name`) REFERENCES `Area` (`area\_name`);

CREATE TABLE IF NOT EXISTS `Airline` (

`al\_name` varchar(50) NOT NULL,

`al\_HQCity` varchar(50) NOT NULL,

`al\_reach` varchar(50) NOT NULL,

PRIMARY KEY (`al\_name`)

) ENGINE=InnoDB DEFAULT CHARSET=latin1;

CREATE TABLE IF NOT EXISTS `Airline\_Airport\_Relationship` (

`al\_name` varchar(50) NOT NULL,

`ap\_name` varchar(50) NOT NULL,

PRIMARY KEY (`al\_name`,`ap\_name`),

KEY `ap\_name` (`ap\_name`)

) ENGINE=InnoDB DEFAULT CHARSET=latin1;

ALTER TABLE `Airline\_Airport\_Relationship`

ADD CONSTRAINT `Airline\_Airport\_Relationship\_ibfk\_1` FOREIGN KEY (`al\_name`) REFERENCES `Airline` (`al\_name`),

ADD CONSTRAINT `Airline\_Airport\_Relationship\_ibfk\_2` FOREIGN KEY (`ap\_name`) REFERENCES `Airport` (`ap\_name`);

CREATE TABLE IF NOT EXISTS `Area` (

`area\_name` varchar(50) NOT NULL,

PRIMARY KEY (`area\_name`)

) ENGINE=InnoDB DEFAULT CHARSET=latin1;

CREATE TABLE IF NOT EXISTS `Plane` (

`al\_name` varchar(50) NOT NULL,

`model\_num` varchar(50) NOT NULL,

`manufacturer` varchar(50) NOT NULL,

`capacity` int(5) NOT NULL,

`tail\_num` int(50) NOT NULL,

`plane\_name` varchar(50) NOT NULL,

PRIMARY KEY (`tail\_num`),

KEY `al\_name` (`al\_name`)

) ENGINE=InnoDB DEFAULT CHARSET=latin1;

ALTER TABLE `Plane`

ADD CONSTRAINT `Plane\_ibfk\_1` FOREIGN KEY (`al\_name`) REFERENCES `Airline` (`al\_name`);

CREATE TABLE IF NOT EXISTS `Area` (

`area\_name` varchar(50) NOT NULL,

PRIMARY KEY (`area\_name`)

) ENGINE=InnoDB DEFAULT CHARSET=latin1;

CREATE TABLE IF NOT EXISTS `Staff` (

`staffID` int(50) NOT NULL,

`staff\_firstName` varchar(50) NOT NULL,

`staff\_lastName` varchar(50) NOT NULL,

PRIMARY KEY (`staffID`)

) ENGINE=InnoDB DEFAULT CHARSET=latin1;

CREATE TABLE IF NOT EXISTS `Flight\_Staff` (

`staffID` int(50) NOT NULL,

`fs\_job` varchar(50) NOT NULL,

`fs\_FAA\_num` int(50) NOT NULL,

`flightCrewID` int(50) NOT NULL,

PRIMARY KEY (`staffID`),

KEY `flightCrewID` (`flightCrewID`)

) ENGINE=InnoDB DEFAULT CHARSET=latin1;

ALTER TABLE `Flight\_Staff`

ADD CONSTRAINT `Flight\_Staff\_ibfk\_1` FOREIGN KEY (`staffID`) REFERENCES `Staff` (`staffID`),

ADD CONSTRAINT `Flight\_Staff\_ibfk\_2` FOREIGN KEY (`flightCrewID`) REFERENCES `Flight\_Crew` (`flightCrewID`);

CREATE TABLE IF NOT EXISTS `NonFlight\_Staff` (

`staffID` int(50) NOT NULL,

`nfs\_job` varchar(50) NOT NULL,

PRIMARY KEY (`staffID`)

) ENGINE=InnoDB DEFAULT CHARSET=latin1;

ALTER TABLE `NonFlight\_Staff`

ADD CONSTRAINT `NonFlight\_Staff\_ibfk\_1` FOREIGN KEY (`staffID`) REFERENCES `Staff` (`staffID`);

CREATE TABLE IF NOT EXISTS `Flight\_Crew` (

`flightCrewID` int(50) NOT NULL,

PRIMARY KEY (`flightCrewID`)

) ENGINE=InnoDB DEFAULT CHARSET=latin1;

CREATE TABLE IF NOT EXISTS `Flight` (

`flightID` int(50) NOT NULL,

`ap\_name\_fliesinto` varchar(50) NOT NULL,

`ap\_name\_fliesfrom` varchar(50) NOT NULL,

`length` double NOT NULL,

`flight\_num` int(50) NOT NULL,

`depart\_time` time NOT NULL,

`arrive\_time` time NOT NULL,

`flightCrewID` int(50) NOT NULL,

`al\_name` varchar(50) NOT NULL,

`weekday` varchar(50) NOT NULL,

PRIMARY KEY (`flightID`),

KEY `ap\_name\_fliesinto` (`ap\_name\_fliesinto`,`ap\_name\_fliesfrom`),

KEY `ap\_name\_fliesfrom` (`ap\_name\_fliesfrom`),

KEY `flightCrewID` (`flightCrewID`),

KEY `al\_name` (`al\_name`)

) ENGINE=InnoDB DEFAULT CHARSET=latin1;

ALTER TABLE `Flight`

ADD CONSTRAINT `Flight\_ibfk\_1` FOREIGN KEY (`ap\_name\_fliesinto`) REFERENCES `Airport` (`ap\_name`),

ADD CONSTRAINT `Flight\_ibfk\_2` FOREIGN KEY (`ap\_name\_fliesfrom`) REFERENCES `Airport` (`ap\_name`),

ADD CONSTRAINT `Flight\_ibfk\_3` FOREIGN KEY (`flightCrewID`) REFERENCES `Flight\_Crew` (`flightCrewID`),

ADD CONSTRAINT `Flight\_ibfk\_4` FOREIGN KEY (`al\_name`) REFERENCES `Airline` (`al\_name`);

CREATE TABLE IF NOT EXISTS `Incident` (

`reporter\_staffID` int(50) NOT NULL,

`flightID` int(50) NOT NULL,

`incident\_type` varchar(50) NOT NULL,

`description` varchar(100) NOT NULL,

`involved\_staffID` int(50) NOT NULL,

`incident\_date` date NOT NULL,

PRIMARY KEY (`reporter\_staffID`,`flightID`,`incident\_date`),

KEY `flightID` (`flightID`),

KEY `involved\_staffID` (`involved\_staffID`)

) ENGINE=InnoDB DEFAULT CHARSET=latin1;

ALTER TABLE `Incident`

ADD CONSTRAINT `Incident\_ibfk\_3` FOREIGN KEY (`flightID`) REFERENCES `Flight` (`flightID`),

ADD CONSTRAINT `Incident\_ibfk\_4` FOREIGN KEY (`reporter\_staffID`) REFERENCES `Staff` (`staffID`),

ADD CONSTRAINT `Incident\_ibfk\_5` FOREIGN KEY (`involved\_staffID`) REFERENCES `Staff` (`staffID`);

CREATE TABLE IF NOT EXISTS `Amenities` (

`flightID` int(50) NOT NULL,

`amenity\_type` varchar(50) NOT NULL,

`price` varchar(50) NOT NULL,

PRIMARY KEY (`flightID`,`amenity\_type`)

) ENGINE=InnoDB DEFAULT CHARSET=latin1;

ALTER TABLE `Amenities`

ADD CONSTRAINT `Amenities\_ibfk\_1` FOREIGN KEY (`flightID`) REFERENCES `Flight` (`flightID`);

CREATE TABLE IF NOT EXISTS `Stopovers` (

`flightID` int(50) NOT NULL,

`location` varchar(50) NOT NULL,

PRIMARY KEY (`flightID`,`location`)

) ENGINE=InnoDB DEFAULT CHARSET=latin1;

ALTER TABLE `Stopovers`

ADD CONSTRAINT `Stopovers\_ibfk\_1` FOREIGN KEY (`flightID`) REFERENCES `Flight` (`flightID`);

**DMLs**

INSERT INTO `Airport` (`area\_name`, `ap\_name`, `ap\_location`, `ap\_abbrev`) VALUES

('Washington DC', 'Baltimore Washington International Airport', 'Baltimore, MD 21240', 'BWI'),

('Washington DC', 'Dulles Airport', '1 Saarinen Cir, Dulles, VA 20166', 'IAD'),

('New York', 'John F. Kennedy International Airport', 'Jamaica, New York, NY 11430', 'JFK'),

('Los Angeles', 'John Wayne Airport', '18601 Airport Way, Santa Ana, CA 92707', 'SNA'),

('Los Angeles', 'LA/Ontario International Airport', 'Ontario, CA 91761', 'ONT'),

('New York', 'LaGuardia Airport', 'New York, NY 11371', 'LGA'),

('Los Angeles', 'Los Angeles International Airport', '1 World Way, Los Angeles, CA 90045', 'LAX'),

('Washington DC', 'Reagan National Airport', 'Arlington, VA 22202', 'DCA');

INSERT INTO `Airline` (`al\_name`, `al\_HQCity`, `al\_reach`) VALUES

('Air Canada', 'Quebec', 'International'),

('Alaska Airlines', 'SeaTac', 'Domestic'),

('American Airlines', 'Fort Worth', 'Domestic'),

('British Airways', 'Harmondsworth', 'International'),

('China Airlines', 'CAL Park', 'International'),

('Delta Air Lines', 'Atlanta', 'Domestic'),

('Korean Air', 'Seoul', 'International'),

('New Mexico Airlines', 'Mesa', 'Locally');

INSERT INTO `Airline\_Airport\_Relationship` (`al\_name`, `ap\_name`) VALUES

('British Airways', 'Baltimore Washington International Airport'),

('Delta Air Lines', 'Baltimore Washington International Airport'),

('Air Canada', 'Dulles Airport'),

('American Airlines', 'Dulles Airport'),

('China Airlines', 'John F. Kennedy International Airport'),

('New Mexico Airlines', 'John F. Kennedy International Airport'),

('Alaska Airlines', 'John Wayne Airport'),

('Korean Air', 'John Wayne Airport'),

('Korean Air', 'LA/Ontario International Airport'),

('New Mexico Airlines', 'LA/Ontario International Airport'),

('Air Canada', 'LaGuardia Airport'),

('Alaska Airlines', 'LaGuardia Airport'),

('British Airways', 'Los Angeles International Airport'),

('China Airlines', 'Los Angeles International Airport'),

('American Airlines', 'Reagan National Airport'),

('Delta Air Lines', 'Reagan National Airport');

INSERT INTO `Area` (`area\_name`) VALUES

('Los Angeles'),

('New York'),

('Washington DC');

INSERT INTO `Plane` (`al\_name`, `model\_num`, `manufacturer`, `capacity`, `tail\_num`, `plane\_name`) VALUES

('Delta Air Lines', 'A320-200', 'Airbus', 150, 2222221, 'Violet Sky'),

('Delta Air Lines', 'A319-100', 'Airbus', 126, 2222222, ''),

('British Airways', '747-400', 'Boeing', 300, 3333332, ''),

('British Airways', 'A320-200', 'Airbus', 150, 3333333, 'Thatcher'),

('American Airlines', '737-800', 'Boeing', 160, 4444444, ''),

('American Airlines', 'A321', 'Airbus', 150, 4444445, ''),

('Alaska Airlines', '737-400', 'Boeing', 168, 5555555, 'Quantas'),

('Alaska Airlines', '737-500', 'Boeing', 132, 5555556, ''),

('Air Canada', 'A320', 'Airbus', 150, 6666666, 'King'),

('Air Canada', 'A321', 'Airbus', 150, 6666667, 'Queen'),

('Korean Air', '737-800', 'Boeing', 138, 7676766, ''),

('Korean Air', '777-200ER', 'Boeing', 248, 7676767, ''),

('China Airlines', '737-800', 'Boeing', 150, 8988987, ''),

('China Airlines', 'A330-300', 'Airbus', 300, 8988988, ''),

('New Mexico Airlines', '208A', 'Cessna', 9, 9876543, 'Mosquito');

INSERT INTO `Area` (`area\_name`) VALUES

('Los Angeles'),

('New York'),

('Washington DC');

INSERT INTO `Staff` (`staffID`, `staff\_firstName`, `staff\_lastName`) VALUES

(1, 'Eve', 'Evenstone'),

(2, 'Adam', 'Adams'),

(3, 'Tom', 'Hanks'),

(4, 'William', 'Shatner'),

(5, 'Lady', 'GaGa'),

(6, 'May', 'June'),

(7, 'Ash', 'Ketchum'),

(8, 'Brock', 'Rocko'),

(9, 'Timothy', 'Turner'),

(10, 'Mimi', 'Opkins'),

(11, 'Jame', 'Jamestown'),

(12, 'Kenny', 'Rogers'),

(13, 'Spock', 'Vulcan'),

(14, 'Katherine', 'Janeway'),

(15, 'Vincent', 'Van Gogh'),

(16, 'Jon', 'Snow'),

(54, 'Daisy', 'Jones'),

(55, 'Kevin', 'Torres'),

(56, 'Jake', 'Dog'),

(57, 'Ellen', 'DeGeneres'),

(59, 'Johnny', 'Depp'),

(60, 'Sarah', 'Buchman'),

(61, 'Truc', 'Nguyen'),

(69, 'Jack', 'Black'),

(72, 'Susan', 'Nachawati'),

(74, 'Finn', 'Human'),

(77, 'Polly', 'Smith'),

(80, 'Pierre', 'Valjean'),

(89, 'Ginny', 'Lopez'),

(99, 'Will', 'Smith');

INSERT INTO `Flight\_Staff` (`staffID`, `fs\_job`, `fs\_FAA\_num`, `flightCrewID`) VALUES

(5, 'Flight Attendant', 10001, 997),

(6, 'Flight Attendant', 10002, 997),

(7, 'Pilot', 10003, 997),

(8, 'Co-Pilot', 10004, 997),

(9, 'Navigator', 10005, 997),

(10, 'Pilot', 10006, 998),

(11, 'Co-Pilot', 10007, 998),

(12, 'Navigator', 10008, 998),

(13, 'Flight Attendant', 10009, 998),

(14, 'Flight Attendant', 10010, 998),

(15, 'Flight Attendant', 10011, 998),

(16, 'Flight Attendant', 10012, 998),

(54, 'Pilot', 20000, 996),

(55, 'Co-Pilot', 19999, 996),

(56, 'Navigator', 19998, 996),

(57, 'Flight Attendant', 19997, 996),

(59, 'Flight Attendant', 19996, 996),

(60, 'Flight Attendant', 19995, 996),

(61, 'Pilot', 19994, 999),

(69, 'Co-Pilot', 19993, 999),

(72, 'Navigator', 19992, 999),

(74, 'Flight Attendant', 19991, 999),

(77, 'Flight Attendant', 19990, 999),

(80, 'Flight Attendant', 19989, 999),

(89, 'Flight Attendant', 19988, 999);

INSERT INTO `NonFlight\_Staff` (`staffID`, `nfs\_job`) VALUES

(1, 'Janitor'),

(2, 'Air Traffic Controller'),

(3, 'Security Guard'),

(4, 'Security Guard'),

(99, 'Janitor');

INSERT INTO `Flight\_Crew` (`flightCrewID`) VALUES

(996),

(997),

(998),

(999);

INSERT INTO `Flight` (`flightID`, `ap\_name\_fliesinto`, `ap\_name\_fliesfrom`, `length`, `flight\_num`, `depart\_time`, `arrive\_time`, `flightCrewID`) VALUES

(501, 'Los Angeles International Airport', 'Dulles Airport', 4.75, 22000, '07:21:00', '15:05:00', 996),

(502, 'Baltimore Washington International Airport', 'LA/Ontario International Airport', 7.5, 22001, '07:00:00', '11:34:00', 999),

(980, 'Los Angeles International Airport', 'LaGuardia Airport', 7.5, 11118, '06:25:00', '17:00:00', 999),

(981, 'Baltimore Washington International Airport', 'Los Angeles International Airport', 6, 11119, '18:55:00', '21:50:00', 996),

(994, 'LaGuardia Airport', 'Baltimore Washington International Airport', 2.75, 11117, '13:15:00', '16:00:00', 997),

(995, 'John Wayne Airport', 'LaGuardia Airport', 7.25, 11114, '11:30:00', '21:25:00', 998),

(998, 'John F. Kennedy International Airport', 'LA/Ontario International Airport', 8.25, 11112, '06:30:00', '11:30:00', 998),

(999, 'Reagan National Airport', 'Los Angeles International Airport', 6, 11111, '09:15:00', '12:15:00', 997);

INSERT INTO `Incident` (`reporter\_staffID`, `flightID`, `incident\_type`, `description`, `involved\_staffID`, `incident\_date`) VALUES

(7, 999, 'Theft', 'Stolen iPad', 7, '2013-08-13'),

(10, 501, 'Theft', 'Stolen iPhone', 10, '2014-03-11'),

(11, 998, 'Runway Incursion', 'Man found walking on runway', 12, '2014-11-28'),

(80, 502, 'Stowaway', 'Found in wheel-well', 72, '2014-06-13');

INSERT INTO `Amenities` (`flightID`, `amenity\_type`, `price`) VALUES

(501, 'Meal', '$7'),

(501, 'Snack', '$5'),

(502, 'Snack', '$15'),

(502, 'Unaccompanied Minor Service', '$100'),

(998, 'Unaccompanied Minor Service', '$25');

INSERT INTO `Stopovers` (`flightID`, `location`) VALUES

(501, 'Calgary'),

(501, 'Toronto'),

(501, 'Vancouver');