Step 1: Find classes

A management of large international airport would like to implement a database system to store information about the employees and airplanes stationed and maintained at the airport. The relevant information is as follows.

Every airplane has a registration number, and each airplane is of a specific model. The airport accommodates a number of airplane models and each model is identified by a model number (e.g. Boeing 737-200) and has a capacity and weight. A registration number uniquely identifies each airplane.

The database should store information about two groups of employees: technicians and traffic controllers. All employees are described by a full name (first, middle, and last name), employee number, hire date, and salary. Employee number is unique for the employees.

Each technician is an expert in one or more plane model(s), and his/her expertise may overlap with that of other technicians.

Traffic controllers must have an annual medical examination. For each traffic controller, we must store the date and result of the most recent medical examinations. The results of medical examinations are either "satisfactory" or "not satisfactory".

The technicians periodically perform number of tests to ensure that airplanes are still airworthy.

Each test is identified by a unique FAA test number and has a name, and maximum possible score.

The aviation authorities require the airport to keep track of each time a given airplane is tested using a given test. For each testing event, the information needed is date, the number of hours spent on the test, and the score the airplane received on the test.

Airplane	Model	Employee

Technician	Traffic controler	Medical examination

Test	Aviation authority	Recent medical examination

Step 2: Find associations

A management of large international airport would like to implement a database system to store information about the employees and airplanes stationed and maintained at the airport. The relevant information is as follows.

Every airplane has a registration number, and *each airplane is of a specific model*. *The airport accommodates a number of airplane models and each model is identified by a model number (e.g. Boeing 737-200) and has a capacity and weight. A registration number uniquely identifies each airplane.*

The database should store information about two groups of employees: technicians and traffic controllers. All employees are described by a full name (first, middle, and last name), employee number, hire date, and salary. Employee number is unique for the employees.
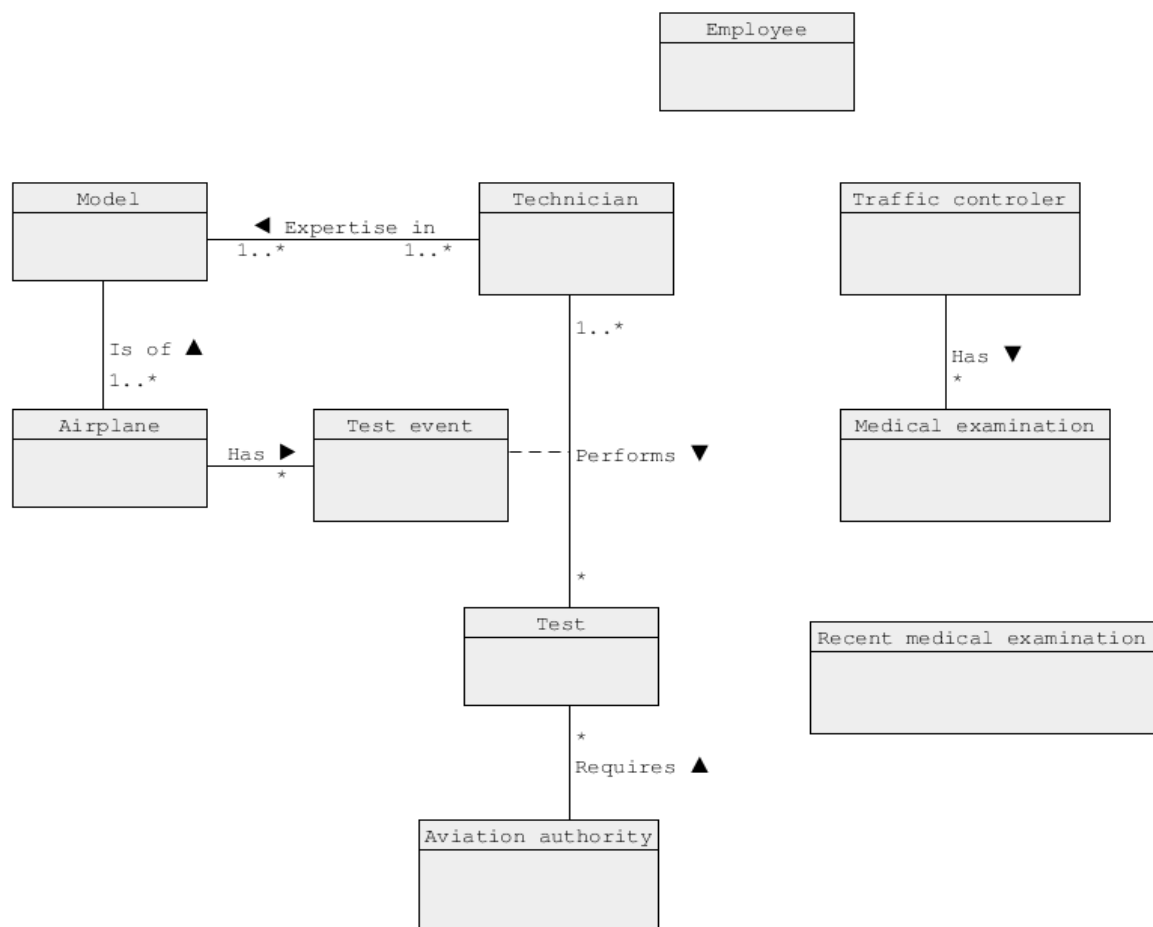
Each technician *is an expert in* *one or more plane model(s), and his/her expertise may overlap with that of other technicians.*

Traffic controllers must *have* *an annual medical examination. For each traffic controller, we must store the date and result of the most recent medical examinations. The results of medical examinations are either "satisfactory" or "not satisfactory".*

The technicians periodically *perform number of* *tests to ensure that airplanes are still airworthy.*

Each test is identified by a unique FAA test number and has a name, and maximum possible score.

The aviation authorities require the airport to keep track of each time a given airplane is tested using a given test. For each testing event, the information needed is date, the number of hours spent on the test, and the score the airplane received on the test.

Step 3: Find attributes

A management of large international airport would like to implement a database system to store information about the employees and airplanes stationed and maintained at the airport. The relevant information is as follows.

Every airplane has a registration number, and each airplane is of a specific model. The airport accommodates a number of airplane models and each model is identified by a model number (e.g. Boeing 737-200) and has a capacity and weight. A registration number uniquely identifies each airplane.

The database should store information about two groups of employees: technicians and traffic controllers. All employees are described by a full name (first, middle, and last name), employee number, hire date, and salary. Employee number is unique for the employees.
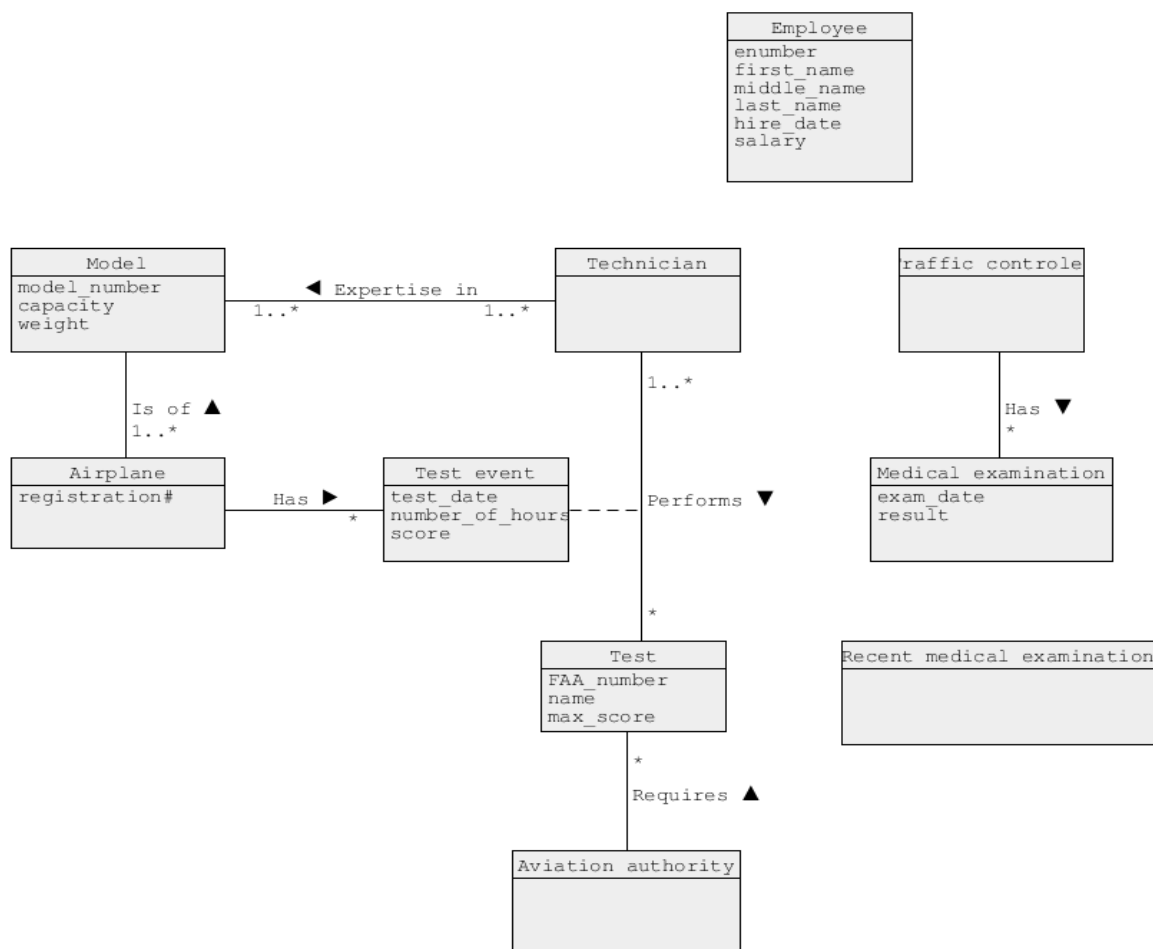
Each technician is an expert in one or more plane model(s), and his/her expertise may overlap with that of other technicians.

Traffic controllers must have an annual medical examination. For each traffic controller, we must store the date and result of the most recent medical examinations. The results of medical examinations are either "satisfactory" or "not satisfactory".

The technicians periodically perform number of tests to ensure that airplanes are still airworthy.

Each test is identified by a unique FAA test number and has a name, and maximum possible score.

The aviation authorities require the airport to keep track of each time a given airplane is tested using a given test. For each testing event, the information needed is date, the number of hours spent on the test, and the score the airplane received on the test.

Step 4: Find identifiers

A management of large international airport would like to implement a database system to store information about the employees and airplanes stationed and maintained at the airport. The relevant information is as follows.

Every airplane has a registration number, and each airplane is of a specific model. The airport accommodates a number of airplane models and each model is identified by a model number *(e.g. Boeing 737-200) and has a capacity and weight. A* registration number uniquely identifies *each airplane.*

The database should store information about two groups of employees: technicians and traffic controllers. All employees are described by a full name (first, middle, and last name), employee number, hire date, and salary. Employee number is unique for the employees.
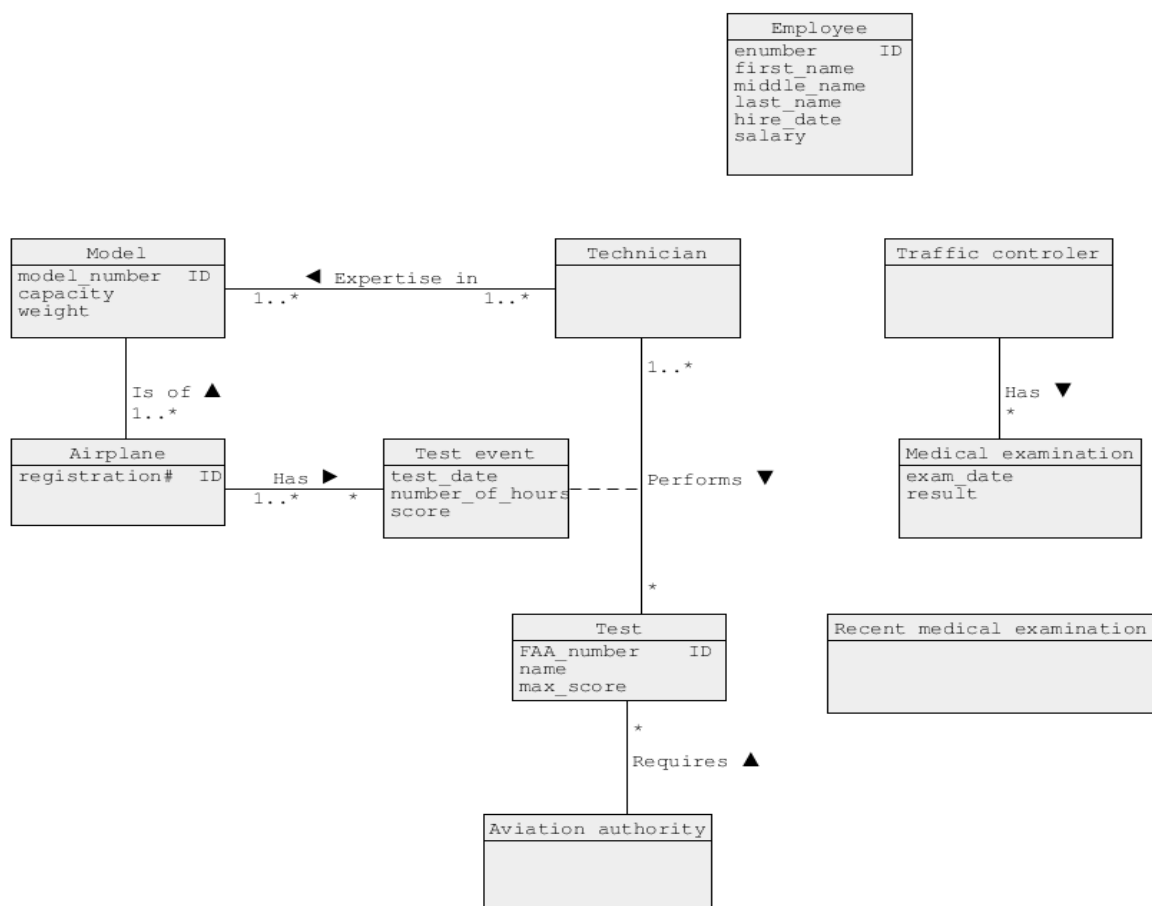
Each technician is an expert in one or more plane model(s), and his/her expertise may overlap with that of other technicians.

Traffic controllers must have an annual medical examination. For each traffic controller, we must store the date and result of the most recent medical examinations. The results of medical examinations are either "satisfactory" or "not satisfactory".

The technicians periodically perform number of tests to ensure that airplanes are still airworthy.

Each test is identified by a unique FAA test number *and has a name, and maximum possible score.*

The aviation authorities require the airport to keep track of each time a given airplane is tested using a given test. For each testing event, the information needed is date, the number of hours spent on the test, and the score the airplane received on the test.

Step 5: Find qualifications

A management of large international airport would like to implement a database system to store information about the employees and airplanes stationed and maintained at the airport. The relevant information is as follows.

Every airplane has a registration number, and each airplane is of a specific model. The airport accommodates a number of airplane models and each model is identified by a model number (e.g. Boeing 737-200) and has a capacity and weight. A registration number uniquely identifies each airplane.

The database should store information about two groups of employees: technicians and traffic controllers. All employees are described by a full name (first, middle, and last name), employee number, hire date, and salary. Employee number is unique for the employees.
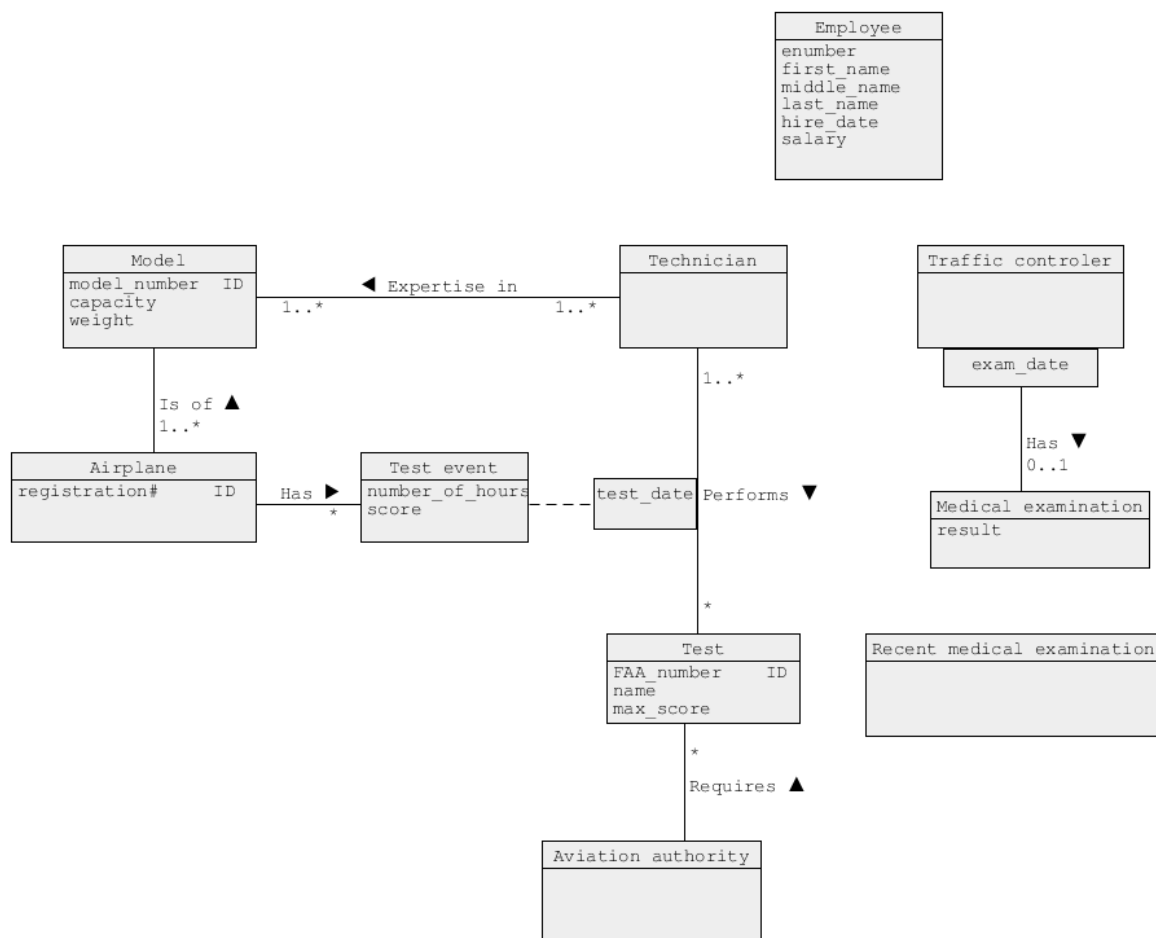
Each technician is an expert in one or more plane model(s), and his/her expertise may overlap with that of other technicians.

Traffic controllers must have an annual medical examination. For each traffic controller, we must store the date and result of the most recent medical examinations. The results of medical examinations are either "satisfactory" or "not satisfactory".

The technicians periodically perform number of tests to ensure that airplanes are still airworthy.

Each test is identified by a unique FAA test number and has a name, and maximum possible score.

The aviation authorities require the airport to keep track of each time *a given airplane is tested using a given test. For each testing event, the information needed is date, the number of hours spent on the test, and the score the airplane received on the test.*

Step 6: Find generalizations

A management of large international airport would like to implement a database system to store information about the employees and airplanes stationed and maintained at the airport. The relevant information is as follows.

Every airplane has a registration number, and each airplane is of a specific model. The airport accommodates a number of airplane models and each model is identified by a model number (e.g. Boeing 737-200) and has a capacity and weight. A registration number uniquely identifies each airplane.

The database should store information about two groups of employees: *technicians and traffic controllers. All employees are described by a full name (first, middle, and last name), employee number, hire date, and salary. Employee number is unique for the employees.*

Each technician is an expert in one or more plane model(s), and his/her expertise may overlap with that of other technicians.

Traffic controllers must have an annual medical examination. For each traffic controller, we must store the date and result of the most recent medical examinations. The results of medical examinations are either "satisfactory" or "not satisfactory".

The technicians periodically perform number of tests to ensure that airplanes are still airworthy.

Each test is identified by a unique FAA test number and has a name, and maximum possible score.

The aviation authorities require the airport to keep track of each time a given airplane is tested using a given test. For each testing event, the information needed is date, the number of hours spent on the test, and the score the airplane received on the test.