

CPSC 304 Project Cover Page

Milestone #: 2

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Group Number: 83

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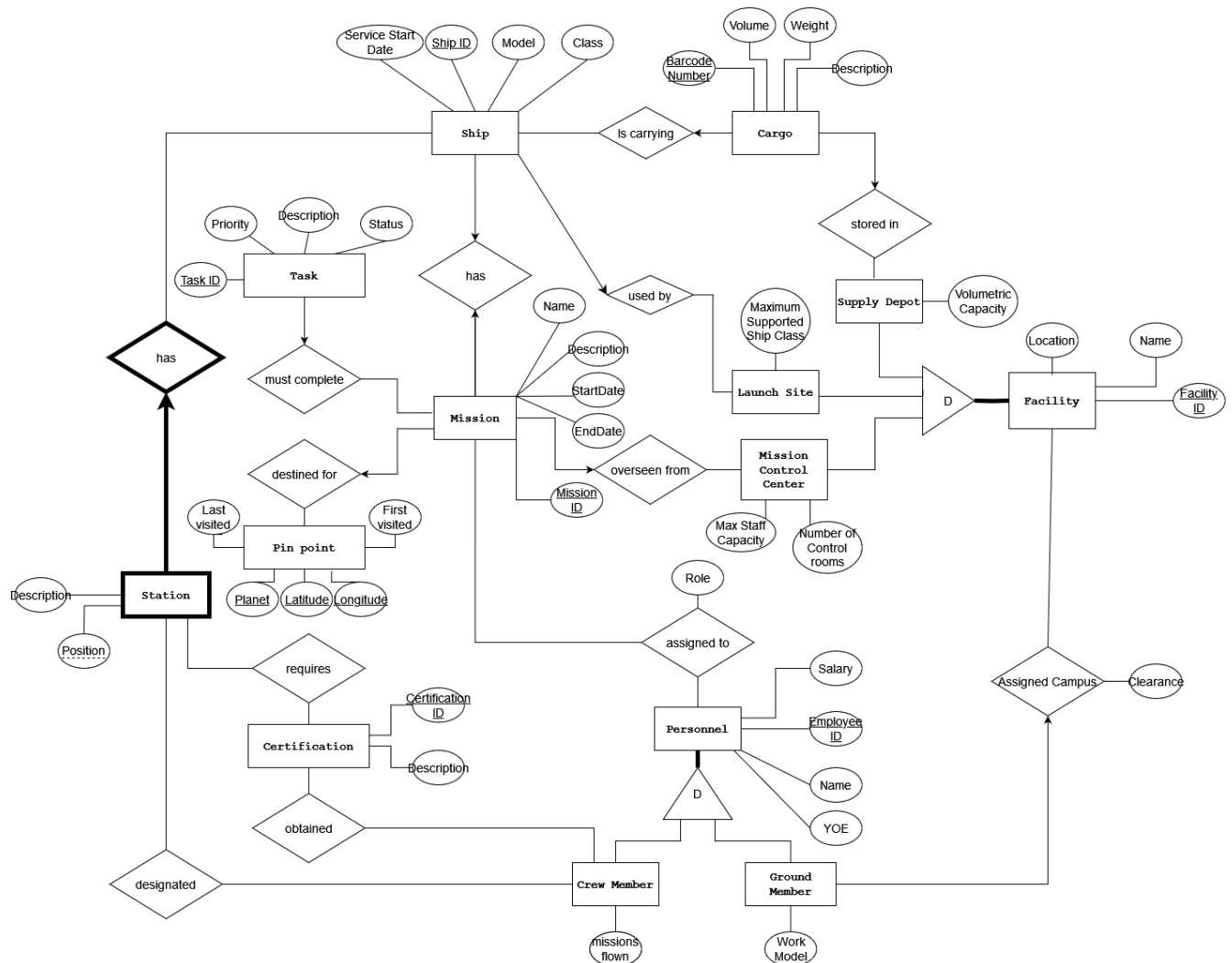
By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia

Project Summary

Our project is an application designed for the Aerospace Industry. Our project aims to help manage the creation of missions to outer space and the organization of human and capital resources.

ER Diagram



Change Log:

- Changed Personnel ISA diagram to have total coverage.
 - We realized that we never use the plain Personnel
- Changed Facility ISA diagram to have total coverage
 - We realized that we never use the plain Facility
- Changed Station - requires - Certification relationship to be many to many
 - We want to be able to use the same certification for more than one station

- Changed CrewMember - has obtained - Certification relation to be many to many
 - We wanted to be able to use one certification on more than one crewMember
- Changed Mission - destined for - PinPoint relationship to be many to one
 - We wanted multiple missions to be able to use the same PinPoint
- Changed name of Assigned relationship between Station and CrewMember to Designated
 - We wanted to have distinguishable table names
- Change name of AssignedTo relationship between Ship and Mission to Has
 - We wanted to have distinguishable table names

Schema

Personnel(Salary: INT, EmployeeID: CHAR(10), Name: VARCHAR, YOE: DATE)
 PRIMARY KEY (EmployeeID)
 CANDIDATE KEY (EmployeeID)

CrewMember(EmployeeID: CHAR(10), MissionsFlown: INT)
 PRIMARY KEY (EmployeeID)
 FOREIGN KEY (EmployeeID) REFERENCES Personnel
 CANDIDATE KEY (EmployeeID)

GroundMember(EmployeeID: CHAR(10), WorkModel: VARCHAR, FacilityID: CHAR(10), Clearance: INT)
 PRIMARY KEY (EmployeeID)
 FOREIGN KEY (EmployeeID) REFERENCES Personnel(EmployeeID)
 FOREIGN KEY (FacilityID) REFERENCES Facility(FacilityID)
 Clearance DEFAULT 1
 CANDIDATE KEY (EmployeeID)

AssignedTo(EmployeeID: CHAR(10), MissionID: CHAR(10), Role: VARCHAR)
 PRIMARY KEY (EmployeeID, MissionID)
 FOREIGN KEY (EmployeeID) REFERENCES Personnel
 FOREIGN KEY (MissionID) REFERENCES Mission
 CANDIDATE KEY ({EmployeeID, MissionID})

Facility(FacilityID: CHAR(10), Name: VARCHAR, Location: VARCHAR)
 PRIMARY KEY (FacilityID)
 Name NOT NULL
 UNIQUE Location
 CANDIDATE KEY ({FacilityID} , {Name})

SupplyDepot(FacilityID: CHAR(10), VolumetricCapacity: FLOAT(2))
PRIMARY KEY (FacilityID)
FOREIGN KEY (FacilityID) REFERENCES Facility
CANDIDATE KEY (FacilityID)

MissionControlCenter(FacilityID: CHAR(10), MaxStaffCapacity: INT,
NumControlRooms: INT)
PRIMARY KEY (FacilityID)
FOREIGN KEY (FacilityID) REFERENCES Facility
CANDIDATE KEY (FacilityID)

LaunchSite(FacilityID: CHAR(10), MaximumSupportedClass: VARCHAR)
PRIMARY KEY (FacilityID)
FOREIGN KEY (FacilityID) REFERENCES Facility
CANDIDATE KEY (FacilityID)

Mission(MissionID: CHAR(10), Name: VARCHAR, Description: VARCHAR, StartDate:
DATE, EndDate: DATE, ShipID: CHAR(10), Planet: VARCHAR, Latitude: FLOAT(4),
Longitude: FLOAT(4), ControlCenterID: CHAR(10))
PRIMARY KEY (MissionID)
FOREIGN KEY (ShipID) REFERENCES Ship
FOREIGN KEY (Planet, Latitude, Longitude) REFERENCES PinPoint
FOREIGN KEY (ControlCenterID) REFERENCES MissionControlCenter(FacilityID)
UNIQUE ShipID
CANDIDATE KEY ({MissionID} , {Name, StartDate})

PinPoint(FirstVisited: DATE, LastVisited: DATE, Planet: VARCHAR, Latitude:
FLOAT(4), Longitude: FLOAT(4))
PRIMARY KEY (Planet, Latitude, Longitude)
CANDIDATE KEY (Planet, Latitude, Longitude)

Task(TaskID: CHAR(10), Priority: INT, Description: VARCHAR, Status: VARCHAR,
MissionID: CHAR(10))
PRIMARY KEY (TaskID)
FOREIGN KEY (MissionID) REFERENCES Mission
Status DEFAULT 'Uninitialized'
CANDIDATE KEY (TaskID)

Ship(ShipID: CHAR(10), ServiceStartDate: DATE, Model: VARCHAR, Class: VARCHAR,
LaunchSiteID: CHAR(10))
PRIMARY KEY (ShipID)

FOREIGN KEY LaunchSiteID REFERENCES LaunchSite(FacilityID)
CANDIDATE KEY (ShipID)

Cargo(BarcodeNumber: CHAR(10), Volume: FLOAT(2), Weight: FLOAT(2),
Description: VARCHAR, DepotID: CHAR(10), ShipID: CHAR(10))
PRIMARY KEY (BarcodeNumber)
Volume NOT NULL
Weight NOT NULL
FOREIGN KEY (DepotID) REFERENCES SupplyDepot(FacilityID)
FOREIGN KEY (ShipID) REFERENCES Ship
CANDIDATE KEY (BarcodeNumber)

Station(Description: VARCHAR, Position: CHAR(30), ShipID: CHAR(10))
PRIMARY KEY (ShipID, Position)
FOREIGN KEY (ShipID) REFERENCES Ship
CANDIDATE KEY (ShipID, Position)

Certification(CertificationID: CHAR(10), Description: VARCHAR)
PRIMARY KEY (CertificationID)
CANDIDATE KEY ({CertificationID} , {Description})

Designated(CrewMemberID: CHAR(10), ShipID: CHAR(10), Position: CHAR(30))
PRIMARY KEY (CrewMemberID, ShipID, Position)
FOREIGN KEY (CrewMemberID) REFERENCES CrewMember(EmployeeID)
FOREIGN KEY (ShipID, Position) REFERENCES Station
CANDIDATE KEY (CrewMemberID, ShipID, Position)

Obtained(CertificationID: CHAR(10), CrewMemberID: CHAR(10))
PRIMARY KEY (CertificationID, EmployeeID)
FOREIGN KEY CrewMemberID REFERENCES CrewMember(EmployeeID)
FOREIGN KEY CertificationID REFERENCES Certification
CANDIDATE KEY (CertificationID, EmployeeID)

Requires(CertificationID: CHAR(10), ShipID: CHAR(10), Position: CHAR(30))
PRIMARY KEY (CertificationID, ShipID, Position)
FOREIGN KEY (ShipID, Position) REFERENCES Station
FOREIGN KEY (CertificationID) REFERENCES Certification
CANDIDATE KEY (CertificationID, ShipID, Position)

Functional Dependencies

Personnel

CKs:

- {EmployeeID}

FDs:

- {EmployeeID} -> {Name, YOE}

CrewMember

CKs:

- {EmployeeID}

FDs:

- {EmployeeID} -> {MissionsFlown}

GroundMember

CKs:

- {EmployeeID}

FDs:

- {EmployeeID} -> {WorkModel, FacilityID, Clearance}

AssignedTo

CKs:

- {EmployeeID, MissionID}

FDs:

- {EmployeeID, MissionID} -> {Role}

Facility:

CKs:

- {FacilityID}
- {Name}

FDs:

- {FacilityID} -> {Name, Location}
- {Name} -> {FacilityID, Location}

SupplyDepot

CKs:

- {FacilityID}

FDs:

- {FacilityID} -> {VolumetricCapacity}

MissionControlCenter

CKs:

- {FacilityID}

FDs:

- {FacilityID} -> {MaxStaffCapacity, NumControlRooms}
- {NumberControlRooms} -> {MaxStaffCapacity} (Because every room has the same capacity)
- {MaxStaffCapacity} -> {NumberControlRooms} (For the same reason as above)

LaunchSite

CKs:

- {FacilityID}

FDs:

- {FacilityID} -> {FacilityID, MaxStaffCapacity, NumControlRooms}

Mission

CKs:

- {MissionID}
- {Name, StartDate}

FDs:

- {MissionID} -> { Name, Description, StartDate, EndDate, ShipID, Planet, Latitude, Longitude, ControlCenterID}
- {Name, StartDate} -> {MissionID, Description, EndDate, ShipID, Planet, Latitude, Longitude, ControlCenterID}

PinPoint

CKs:

- {Planet, Latitude, Longitude}

FDs:

- {Planet, Latitude, Longitude} -> {FirstVisited, LastVisited}

Task

CKs:

- {TaskID}

FDs:

- {TaskID} -> {Priority, Description, Status, MissionID}

Ship

CKs:

- {ShipID}

FDs:

- {ShipID} -> {ServiceStartDate, Model, Class, LaunchSiteID}
- {Model} -> {Class} (Since class is like the "category" of the ship, two ships of the same model can't be of a different class)

Cargo

CKs:

- {BarcodeNumber}

FDs:

- {BarcodeNumber} -> {Volume, Weight, Description, DepotID, ShipID}

Station

CKs:

- {Position, ShipID}

FDs:

- {Position, ShipID} -> {Description}

Certification

CKs:

- {CertificationID}
- {Description}

FDs:

- {CertificationID} -> {Description}
- {Description} -> {CertificationID}

Designated

CKs:

- {CrewMemberID, ShipID, Position}

Obtained

CKs:

- {CertificationID, EmployeeID}

Requires

CKs:

- {CertificationID, ShipID, Position}

Normalization

MissionControlCenter

(FacilityID, MaxStaffCapacity, NumberControlRooms)

BCNF decomposes to

(NumControlRooms, MaxStaffCapacity), (FacilityID, NumControlRooms)

Ship

(ShipID, ServiceStartDate, Model, Class, LaunchSiteID)

BCNF decomposes to

(Model, Class), (ShipID, ServiceStartDate, LaunchSiteID, Model)

CREATE Statements

```
CREATE TABLE Personnel(  
    Salary: INT,  
    EmployeeID: CHAR(10),  
    Name: VARCHAR,  
    YOE: DATE,  
    PRIMARY KEY (EmployeeID)  
)
```

```
CREATE TABLE CrewMember(  
    EmployeeID: CHAR(10),  
    MissionsFlown: INT,  
    PRIMARY KEY (EmployeeID),  
    FOREIGN KEY (EmployeeID) REFERENCES Personnel  
)
```

```
CREATE TABLE GroundMember(  
    EmployeeID: CHAR(10),  
    WorkModel: VARCHAR,  
    FacilityID: CHAR(10),  
    Clearance: INT,  
    PRIMARY KEY (EmployeeID),  
    FOREIGN KEY (EmployeeID) REFERENCES Personnel(EmployeeID),  
    FOREIGN KEY (FacilityID) REFERENCES Facility(FacilityID),  
    Clearance DEFAULT 1  
)
```

```
CREATE TABLE AssignedTo(  
    EmployeeID: CHAR(10),  
    MissionID: CHAR(10),  
    Role: VARCHAR,  
    PRIMARY KEY (EmployeeID, MissionID),  
    FOREIGN KEY (EmployeeID) REFERENCES Personnel,  
    FOREIGN KEY (MissionID) REFERENCES Mission  
)
```

```
CREATE TABLE Facility(  
    FacilityID: CHAR(10),  
    Name: VARCHAR,  
    Location: VARCHAR,  
    PRIMARY KEY (FacilityID),  
    Name NOT NULL,  
    UNIQUE Location  
)
```

```
CREATE TABLE SupplyDepot(  
    FacilityID: CHAR(10),  
    VolumetricCapacity: FLOAT(2),  
    PRIMARY KEY (FacilityID),  
    FOREIGN KEY (FacilityID) REFERENCES Facility  
)
```

```
CREATE TABLE MissionControlCenter(  
    FacilityID: CHAR(10),  
    NumControlRooms: INT,  
    PRIMARY KEY (FacilityID),  
    FOREIGN KEY (FacilityID) REFERENCES Facility  
    FOREIGN KEY (NumControlRooms) REFERENCES NumControlRoom  
)
```

```
CREATE TABLE NumControlRoom(  
    MaxStaffCapacity: INT,  
    NumControlRooms: INT,  
    PRIMARY KEY (NumControlRooms)  
)
```

```
CREATE TABLE LaunchSite(  
    FacilityID: CHAR(10),  
    MaximumSupportedClass: VARCHAR,  
    PRIMARY KEY (FacilityID),  
    FOREIGN KEY (FacilityID) REFERENCES Facility  
)
```

```
CREATE TABLE Mission(  
    MissionID: CHAR(10),  
    Name: VARCHAR,  
    Description: VARCHAR,  
    StartDate: DATE,  
    EndDate: DATE,  
    ShipID: CHAR(10),  
    Planet: VARCHAR,  
    Latitude: FLOAT(4),  
    Longitude: FLOAT(4),  
    ControlCenterID: CHAR(10),  
    PRIMARY KEY (MissionID),  
    FOREIGN KEY (ShipID) REFERENCES Ship,  
    FOREIGN KEY (Planet, Latitude, Longitude) REFERENCES PinPoint,  
    FOREIGN KEY (ControlCenterID) REFERENCES  
    MissionControlCenter(FacilityID)  
    UNIQUE (ShipID)  
)
```

```
CREATE TABLE PinPoint(  
    FirstVisited: DATE,  
    LastVisited: DATE,  
    Planet: VARCHAR,  
    Latitude: FLOAT,  
    Longitude: FLOAT,  
    PRIMARY KEY (Planet, Latitude, Longitude)  
)
```

```

CREATE TABLE Task(
    TaskID: CHAR(10),
    Priority: INT,
    Description: VARCHAR,
    Status: VARCHAR,
    MissionID: CHAR(10),
    PRIMARY KEY (TaskID),
    FOREIGN KEY (MissionID) REFERENCES Mission,
    Status DEFAULT 'Uninitialized'
)

```

```

CREATE TABLE Ship (
    ShipID CHAR(10),
    ServiceStartDate DATE,
    Model VARCHAR,
    LaunchSiteID CHAR(10),
    PRIMARY KEY (ShipID)
    FOREIGN KEY (LaunchSiteID) REFERENCES LaunchSite(FacilityID)
    FOREIGN KEY (Model) REFERENCES Model
)

```

```

CREATE TABLE Model(
    Model VARCHAR,
    Class VARCHAR,
    PRIMARY KEY (Model)
)

```

```

CREATE TABLE Cargo(
    BarcodeNumber CHAR(10),
    Volume FLOAT(2) NOT NULL,
    Weight FLOAT(2) NOT NULL,
    Description VARCHAR,
    DepotID CHAR(10),
    ShipID CHAR(10),
    PRIMARY KEY (BarcodeNumber),
    FOREIGN KEY (DepotID) REFERENCES SupplyDepot(FacilityID)
    FOREIGN KEY (ShipID) REFERENCES Ship
)

```

```
CREATE TABLE Station(  
    Description VARCHAR,  
    Position CHAR(30),  
    ShipID CHAR(10),  
    PRIMARY KEY (ShipID, Position)  
    FOREIGN KEY (ShipID) REFERENCES Ship  
)
```

```
CREATE TABLE Certification(  
    CertificationID CHAR(10),  
    Description VARCHAR,  
    PRIMARY KEY (CertificationID)  
)
```

```
CREATE TABLE Designated(  
    CrewMemberID CHAR(10),  
    ShipID CHAR(10),  
    Position CHAR(10),  
    PRIMARY KEY (CrewMemberID, ShipID, Position),  
    FOREIGN KEY (CrewMemberID) REFERENCES CrewMember(EmployeeID),  
    FOREIGN KEY (ShipID, Position) REFERENCES Station  
)
```

```
CREATE TABLE Obtained(  
    CertificationID CHAR(10),  
    CrewMemberID CHAR(10),  
    PRIMARY KEY (CertificationID, CrewMemberID),  
    FOREIGN KEY CrewMemberID REFERENCES CrewMember(EmployeeID),  
    FOREIGN KEY CertificationID REFERENCES Certification  
)
```

```
CREATE TABLE Requires(  
    CertificationID CHAR(10),  
    ShipID CHAR(10),  
    Position CHAR(30),  
    PRIMARY KEY (CertificationID, ShipID, Position),  
    FOREIGN KEY (ShipID, Position) REFERENCES Station,  
    FOREIGN KEY (CertificationID) REFERENCES Certification  
)
```

INSERT Statements

INSERT INTO Personnel VALUES

```
(60000, '0000000001', 'Crew Mate', '2018-06-15'),
(145000, '0000000002', 'Ellen Ripley', '1979-05-25'),
(145000, '0000000003', 'Jim Raynor', '1998-03-31'),
(60000, '0000000004', 'Malcolm Reynolds', '2024-04-28'),
(60000, '0000000005', 'John Doe', '2024-04-21'),
(60000, '0000000006', 'Neil Armstrong', '1962-04-01'),
(60000, '0000000007', 'Buzz Aldrin', '1962-05-23'),
(60000, '0000000008', 'Wullf Yularen', '2023-07-10'),
(60000, '0000000009', 'David Hickman', '2018-01-03'),
(60000, '0000000010', 'Joseph Hatfield', '2021-11-27');
```

INSERT INTO Ship VALUES

```
('0000000001', '2005-03-18', 'Victory-II', '0000000006'),
('0000000002', '2007-05-25', 'Lockmart CM-88B Bison', '0000000006'),
('0000000003', '2002-09-20', 'Aught Three', '0000000006'),
('0000000004', '2018-06-15', 'Skeld', '0000000006'),
('0000000005', '2023-11-09', 'Galactica', '0000000006');
```

INSERT INTO Station VALUES

```
('Determines route and makes course changes', 'Navigation', '0000000001'),
('Runs botanical garden in ship', 'Botanical', '0000000001'),
('Runs security', 'Security', '0000000001'),
('Flies the ship', 'Flight Control', '0000000001'),
('Conducts research in space', 'Research', '0000000001');
```

INSERT INTO Certification VALUES

```
('0000000001', 'Flying a ship 101'),
('0000000002', 'Bachelor of Science'),
('0000000003', 'Exercising authority in space 101'),
('0000000004', 'Gardening 101'),
('0000000005', 'How to find yourself in space 101');
```

INSERT INTO Designated VALUES

```
('0000000001', '0000000001', 'Navigation'),
('0000000002', '0000000001', 'Botanical'),
('0000000003', '0000000001', 'Security'),
('0000000004', '0000000001', 'Flight Control'),
('0000000005', '0000000001', 'Research');
```

```
INSERT INTO Obtained VALUES
('00000000005', '00000000001'),
('00000000004', '00000000002'),
('00000000003', '00000000003'),
('00000000003', '00000000001'),
('00000000004', '00000000002'),
('00000000005', '00000000001');
```

```
INSERT INTO Requires VALUES
('00000000005', '00000000001', 'Flight Control'),
('00000000004', '00000000001', 'Botanical'),
('00000000003', '00000000001', 'Security'),
('00000000001', '00000000001', 'Pilot'),
('00000000002', '00000000001', 'Research');
```

```
INSERT INTO Model VALUES
('Victory-II', 'L-Class'),
('Lockmart CM-88B Bison', 'M-Class'),
('Aught Three', 'S-Class'),
('Skeld', 'L-Class'),
('Galactica', 'L-Class');
```

```
INSERT INTO Mission VALUES
('00000000001', 'LaLopo-11', 'Lorem Ipsum', '2005-03-18', '2007-05-25',
'00000000001', 'Mars', -49.2827, -123.1207, '00000000001'),
('00000000002', 'LaLopo-12', 'Lorem Ipsum', '2007-05-25', '2008-05-25',
'00000000002', 'Mars', -29.7604, 95.3698, '00000000002'),
('00000000003', 'LaLopo-13', 'Lorem Ipsum', '2008-05-25', '2009-05-25',
'00000000003', 'Venus', 33.4489, 70.6693, '00000000003'),
('00000000004', 'LaLopo-14', 'Lorem Ipsum', '2009-05-25', '2010-05-25',
'00000000004', 'Pluto', 43.6532, -79.3832, '00000000002'),
('00000000005', 'LaLopo-15', 'Lorem Ipsum', '2011-05-25', '2012-05-25',
'00000000005', 'Mercury', 45.5019, -73.5674, '00000000005');
```

```
INSERT INTO PinPoint VALUES
('2005-03-18', '2005-03-18', 'Mars', -49.2827, -123.1207),
('2007-05-25', '2007-05-25', 'Mars', -29.7604, 95.3698),
('2008-05-25', '2008-05-25', 'Venus', 33.4489, 70.6693),
('2009-05-25', '2009-05-25', 'Pluto', 43.6532, -79.3832),
('2011-05-25', '2011-05-25', 'Mercury', 45.5019, -73.5674);
```

INSERT INTO CrewMember VALUES

('0000000001', 0),
('0000000002', 6),
('0000000003', 5),
('0000000004', 6),
('0000000006', 7);

INSERT INTO GroundMember VALUES

('0000000005', 'Hybrid', '0000000001', 1),
('0000000007', 'In-Person', '0000000001', 1),
('0000000008', 'Online', '0000000002', 1),
('0000000009', 'In-Person', '0000000002', 1),
('0000000010', 'In-Person', '0000000002', 2);

INSERT INTO AssignedTo VALUES

('0000000009', '0000000001', 'Flight Director'),
('0000000010', '0000000001', 'Spacecraft Communicator'),
('0000000002', '0000000001', 'Flight Engineer'),
('0000000003', '0000000001', 'Commander'),
('0000000001', '0000000001', 'Pilot');

INSERT INTO Facilities VALUES

('0000000001', 'Mira HQ', 'Detroit'),
('0000000002', 'Aperture Enrichment Center', 'Detroit'),
('0000000003', 'Neumos', 'Seattle'),
('0000000004', 'Googleplex', 'Mountain View'),
('0000000005', 'Tesla Factory', 'Palo Alto'),
('0000000006', 'Polus', 'Polus'),
('0000000007', 'Uber HQ', 'San Francisco'),
('0000000008', 'Apple Park', 'Cupertino'),
('0000000009', 'The Middle of Nowhere', 'Saskatoon'),
('0000000010', 'Vancouver Public Library', 'Vancouver'),
('0000000011', 'ICICS', 'Vancouver'),
('0000000012', 'Hugh Dempster', 'Vancouver'),
('0000000013', 'Basement Food Court', 'Vancouver'),
('0000000014', 'The Nest', 'Vancouver'),
('0000000015', 'My Back Yard', 'Vancouver');


```
INSERT INTO SupplyDepot VALUES
```

```
('0000000011', 110000),  
( '0000000012', 120000),  
( '0000000013', 130000),  
( '0000000014', 140000),  
( '0000000015', 10);
```

```
INSERT INTO LaunchSite VALUES
```

```
('0000000006', 'L-Class'),  
( '0000000007', 'M-Class'),  
( '0000000008', 'M-Class'),  
( '0000000009', 'M-Class'),  
( '0000000010', 'S-Class');
```

```
INSERT INTO MissionControlCenter VALUES
```

```
('0000000001', 1),  
( '0000000002', 2),  
( '0000000003', 3),  
( '0000000004', 4),  
( '0000000005', 5);
```

```
INSERT INTO MissionControlCenter VALUES
```

```
('0000000001', 1),  
( '0000000002', 2),  
( '0000000003', 3),  
( '0000000004', 4),  
( '0000000005', 5);
```

```
INSERT INTO Tasks VALUES
```

```
('0000000001', 'High', 'Fix wiring', NULL, '0000000001'),  
( '0000000002', 'Low', 'Clear asteroids', NULL, '0000000001'),  
( '0000000003', 'Low', 'Mine minerals', NULL, '0000000001'),  
( '0000000004', 'Low', 'Collect vespene gas', NULL, '0000000001'),  
( '0000000005', 'Low', 'Twiddle thumbs', NULL, '0000000001');
```

```
INSERT INTO Cargo VALUES
```

```
('0000000001', 10.47, 2.01, 'Components', '0000000011', '0000000001'),  
( '0000000002', 1.89, 4.00, 'Components', '0000000011', '0000000001'),  
( '0000000003', 98.2, 3.48, 'Components', '0000000011', '0000000001'),  
( '0000000004', 5.80, 3.01, 'Components', '0000000011', '0000000001'),  
( '0000000005', 2.98, 5.00, 'Components', '0000000011', '0000000001');
```