

CPSC 471 Project Functions Definitions

Function: Book Flight

Inputs: @Username, @Password, @Flight_ID

Output: None

Pseudo-code:

Connect to the Database

Query = INSERT INTO Booked(@Username, @Password, @Flight_ID)

FROM Client as c

WHERE c.No_Fly_List = "False"

Parse Query

Execute Query

Close Connection to Database

Function: Register Luggage

Inputs: @ID, @Weight, @Username, @Password, @Passport_ID

Output: None

Pseudo-code:

Connect to the Database

Query = INSERT INTO Luggage(@ID, @Weight, @Username, @Password, @Passport_ID)

Parse Query

Execute Query

Close Connection to Database

Function: Submit Passport Information

Inputs: = @Username, @Password, @Passport_ID

Output: None

Pseudo-code:

Connect to the Database

Query = UPDATE Clients

SET Passport_ID = @Passport_ID

WHERE Username = @Username and Passport = @Passport

Parse Query

Execute Query

Close Connection to Database

Function: Search For Flight

Inputs: @Date, @Destination

Output: Flights to a given Destination by least expensive to most expensive

Pseudo-code:

Connect to the Database

Query = SELECT f.Flight_ID, f.Destination, f.Date, f.Time, p.Cost

From Flight as f, p as Plans_For

Where f.Date = @Date and f.Destination = @Destination and p.Flight_ID = f.Flight_ID and p.Cost is not NULL

ORDER BY p.Cost ASC

Parse Query

Execute Query
Close Connection to Database

Function: Track Passenger

Inputs: @Client_Username

Output: Prints the Flight that a Client is on and when their expected(or actual) arrival time is.

Pseudo-code:

Connect to the Database

Query = SELECT b.Client_Username, b.Flight_ID, f.Estimate_Arrival

From Booked as b, Flight as f

Where b.Client_Username = @Client_Username and f.Flight_ID = b.Flight_ID and b.Arrival is NULL

Union

SELECT b.Client_Username, b.Flight_ID, f.Arrival

From Booked as b, Flight as f

Where b.Client_Username = @Client_Username and f.Flight_ID = b.Flight_ID and b.Arrival is not NULL

Parse Query

Execute Query

Close Connection to Database

Function: Clear Planes Through Customs

Inputs: = @Username, @Password, @Flight_ID

Output: None

Pseudo-code:

Connect to the Database

Query = INSERT INTO Cleared_Custom(@Username, @Password, @Flight_ID)

Parse Query

Execute Query

Close Connection to Database

Function: Search for Security Personnel

Inputs: = @SSN

Output: Details about Security Agent

Pseudo-code:

Connect to the Database

Query = SELECT p.SSN, p.Name, p.Address, p.Phone_Number

From p as Personnel

Where p.SSN = @SSN and Type = "Security"

Parse Query

Execute Query

Close Connection to Database

Function: Add New Security Personnel

Inputs: = @Username, @Password, @SSN, @Name, @Address, @Phone_Number, @Type

Output: None

Pseudo-code:

Connect to the Database

Query = INSERT INTO Personnel(@SSN, @Name, @Address, @Phone_Number, @Type, NULL)

INSERT INTO Employs(@Username, @Password, @SSN)

Parse Query

Execute Query

Close Connection to Database

Function: View Weather Data

Inputs: = @Date

Output: All Weather Reports collected for a specific date from newest to oldest

Pseudo-code:

Connect to the Database

Query = SELECT w.Date, w.Time, w.Temperature, w.cloud_cover, w.Visibility

From w as Weather Data

Where w.Date =@Date

ORDER BY w.Time DSC

Parse Query

Execute Query

Close Connection to Database

Function: Add Weather Data

Inputs: = @Date, @Time, @Temperature, @Cloud_cover, @Visibility, @Username, @Password

Output: None

Pseudo-code:

Connect to the Database

Query = INSERT INTO Weather Data(@Date, @Time, @Temperature, @Cloud_cover, @Visibility,
@Username, @Password
)

Parse Query

Execute Query

Close Connection to Database

Function: View Location Details

Inputs: = @Name, @Heading, @Type

Output: Returns information about a specified location in alphabetical order and the name of the supplier company managing the location

Pseudo-code:

Connect to the Database

Query = SELECT l.X_Coordinate, l.Y_Coordinate, l.Name, l.Heading, l.Number, l.Capacity, l.Type,
s.Company_Name

From l as Location, s as Supplier

Where l.Name = @Name and l.Heading = @Heading and l.Type = @Type and l.Supplier_Username =
s.Username, and l.Supplier_Password and s.Password

Order by l.Name

Parse Query
Execute Query
Close Connection to Database

Function: Update Aircraft Location

Inputs: = @Serial_Number, @X_Coor, @Y_Coor

Output: None

Pseudo-code:

Connect to the Database
Query = UPDATE Aircraft
SET X_Coordinate = @X_Coor, Y_Coordinate = @Y_Coor
WHERE Serial_Number = @Serial_Number
Parse Query
Execute Query
Close Connection to Database

Function: View Supplier by Category

Inputs: = @Type

Output: Returns all suppliers of a specific type in alphabetical and their location of operation

Pseudo-code:

Connect to the Database
Query = SELECT s.Username, s.Company_Name, s.Supplier_ID, l.Name, l.Number
From l as Location, s as Supplier
Where s.Type = @Type and s.Username = l.Supplier_Username and s.Password = l.Supplier_Password
ORDER BY s.Company_Name
Parse Query
Execute Query
Close Connection to Database

Function: Register Aircraft

Inputs: = @Serial_Number, @Years_In_Service, @Model, @Manufacturer, @Weight_Capacity,
@Username, @Password

Output: None

Pseudo-code:

Connect to the Database
Query = INSERT INTO Aircraft(@Serial_Number, @Years_In_Service, @Model, @Manufacturer,
@Weight_Capacity, NULL, NULL, @Username, @Password)
Parse Query
Execute Query
Close Connection to Database

Function: Create Flight

Inputs: = @Flight_ID, @Destination, @Date, @Time, @Goods, @Weight_of_Cargo, @Type,
@Username, @Password

Output: None

Pseudo-code:

Connect to the Database

Query = INSERT INTO Flight(@Flight_ID, @Destination, @Date, @Time @Goods, @Weight_of_Cargo, @Type, @Usermae. @Password, NULL, NULL, NULL, NULL, NULL)

Parse Query

Execute Query

Close Connection to Database

Function: Assign Pilot

Inputs: = @SSN, @FlightID

Output: None

Pseudo-code:

Connect to the Database

Query = UPDATE Personnel

SET Flight_ID = @Flight_ID

WHERE SSN = @SSN

Parse Query

Execute Query

Close Connection to Database

Function: Submit Flight Plan

Inputs: = @Flight_ID, @Username, @Password, @Waypoints, @Crusing_Atitude, @Cost, @Flight_Type

Output: None

Pseudo-code:

Connect to the Database

Query = INSERT INTO Plans_For(@Flight_ID, @Username, @Password, @Waypoints, @Crusing_Atitude, @Cost, @Flight_Type)

Parse Query

Execute Query

Close Connection to Database

Function: List Aircraft in Inventory

Inputs: = @Username, @Password

Output: Returns a list of aircraft owned by a specified aircraft owner and their current location

Pseudo-code:

Connect to the Database

Query = SELECT a.Serial_Number, a.Years_In_Service, a.Model, a.Manufacturer, a.Weight_Capacity, l. Name, l.Number

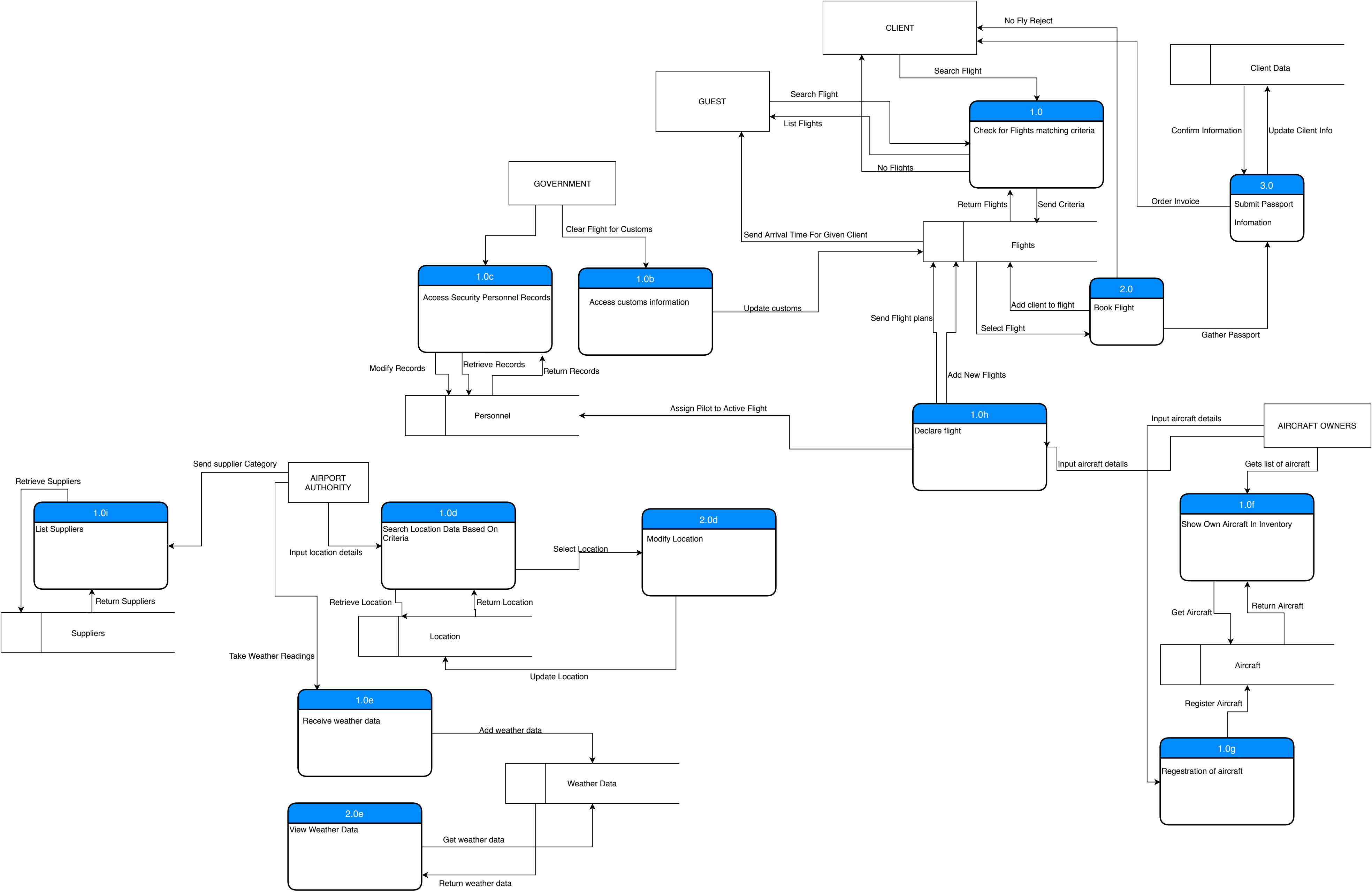
From a as Aircraft, From l as Location

Where w.Owner_Username = @Username and w.Owner_Password and w.X_Coordinate = l.X_Coordiante and w.Y_Coordinate = l.Y_Coordinate

Parse Query

Execute Query

Close Connection to Database



Airport Context Diagram

