A4Q3

**3.1.** *Find the FLNO of all flights that originate in YUL.*

SQL Query

SELECT FLNO FROM FLIGHT WHERE from =’YUL’;

Datalog Query

FlightFromYul(FLNO) 🡨 FLIGHT(FLNO, From, To, Depart, FlightDuration) AND From. = “YUL”;

**3.2** Find *all airports that can be reached from YUL.*

SQL Query

SELECT DISTINCT To FROM FLIGHT WHERE From =’YUL’;

Datalog Query

AirportFromYul(To) 🡨 FLIGHT(FLNO, From, To, Depart, FlightDuration) AND From = “YUL” AND not AirportFromYul(To);

**3.3** *Find the flight to fly from YUL to PEK ensuring that there is at least two hours between connecting flights. Assuming we want 2 flights.*

SQL Query

SELECT f1, f2 FROM FLIGHT f1, FLIGHT f2 WHERE f1.From =”YUL” AND f2.To = “PEK” AND f1.To = f2.From AND f1.Depart+f1.FlightDuration < f2.Depart-2;

Datalog Query

FlightsFromYul (FLNO1, FLNO2) 🡨 FLIGHT(FLNO1, From1, To1, Depart1, FlightDuration1) AND From1 = “YUL” AND FLIGHT(FLNO2, To1, To2, Depart2, FlightDuration2) AND To2 = “PEK” AND Depart1+FlightDuration1< Depart2 – 2;

**3.4** *Find the shortest route(time) to fly from YUL to CCU.*

SQL Query

SELECT MIN(FlightDuration) FROM FLIGHT WHERE From = ”YUL” AND To = “CCU”;

Datalog Query

MinFlight (FLNO, From, Depart, To) 🡨 FLIGHT(FLNO, From, To, Depart, FlightDuration)

AND From= “YUL” AND To=”CCU”