Lab-4 (202201447)

Q-1)

Country
• name : String
• borders : String

Spain
• name :- Spain
borders :- France

France
• name :- France
• borders :- Belgium Spain.

Belgium
• name :- Belgium
borders :- France

Q-2)

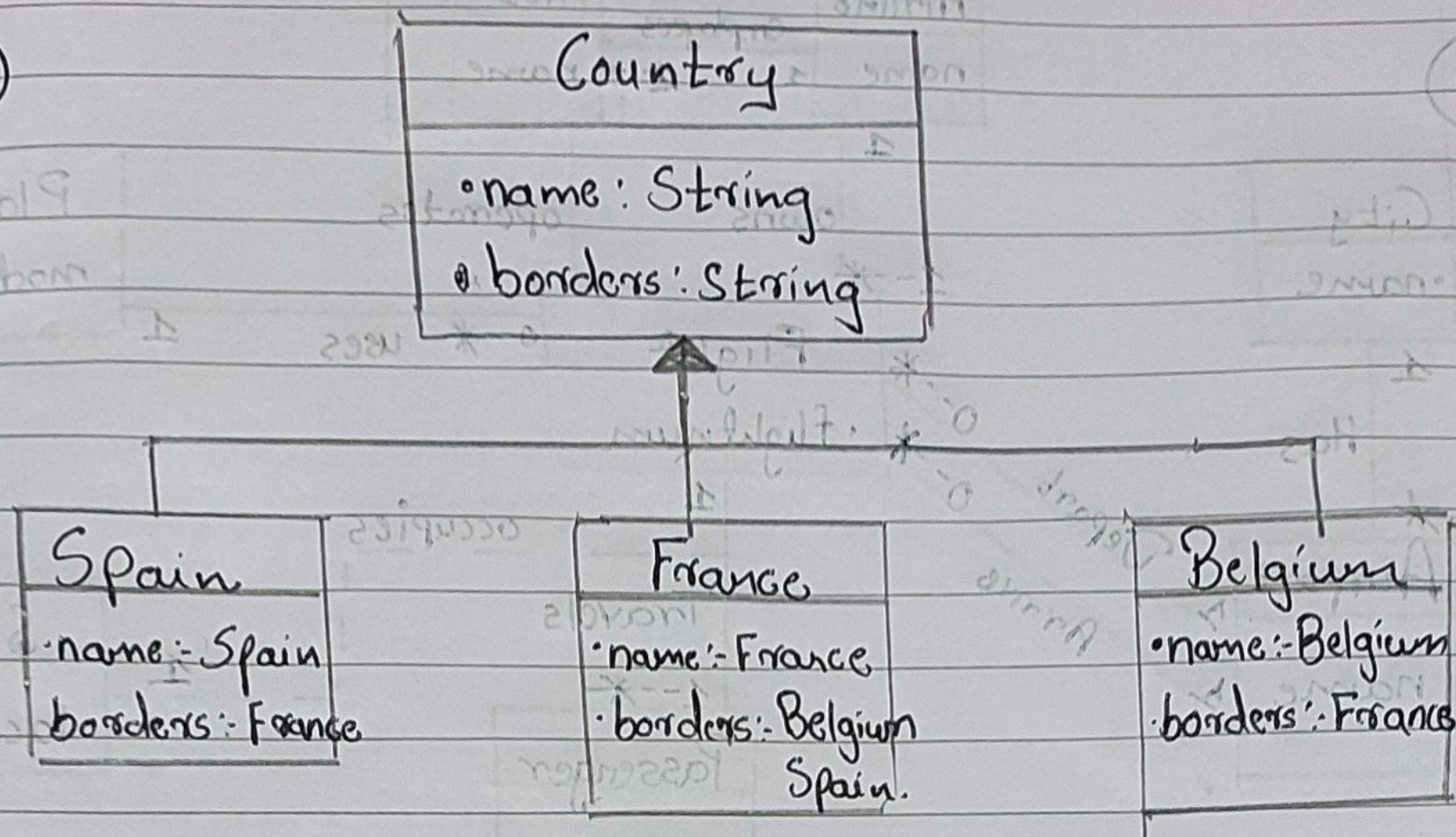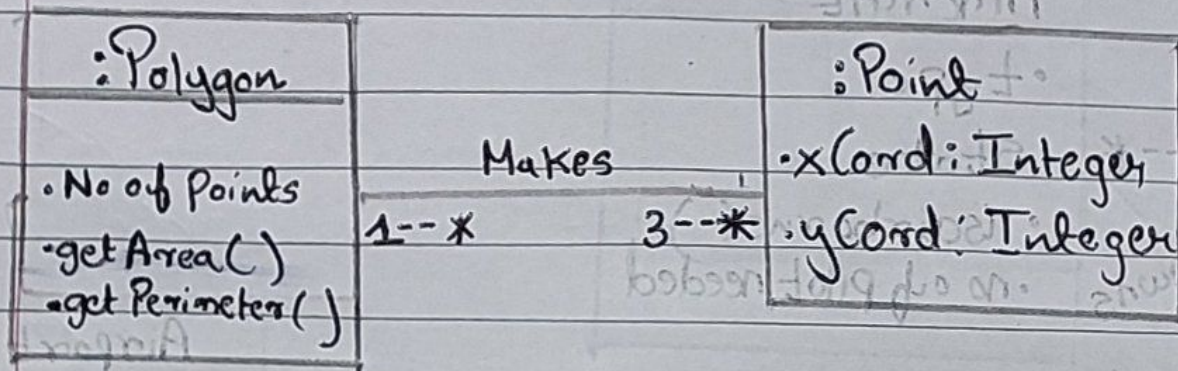| : Polygon	Makes	: Point
• No of Points		• x Cord : Integer
• get Area ( )	1 -- * 3 -- *	• y Cord : Integer
• get Perimeter ( )		

- A minimum of 3 points are required to make a polygon.
- Points can be shared btween two polygons
- The order of points matter in defining shape of polygon

Multiplicity :- $\overset{\text{one Many}}{1}$ is to many

↳ Explanation :- • One polygon requireds more than 3 points.
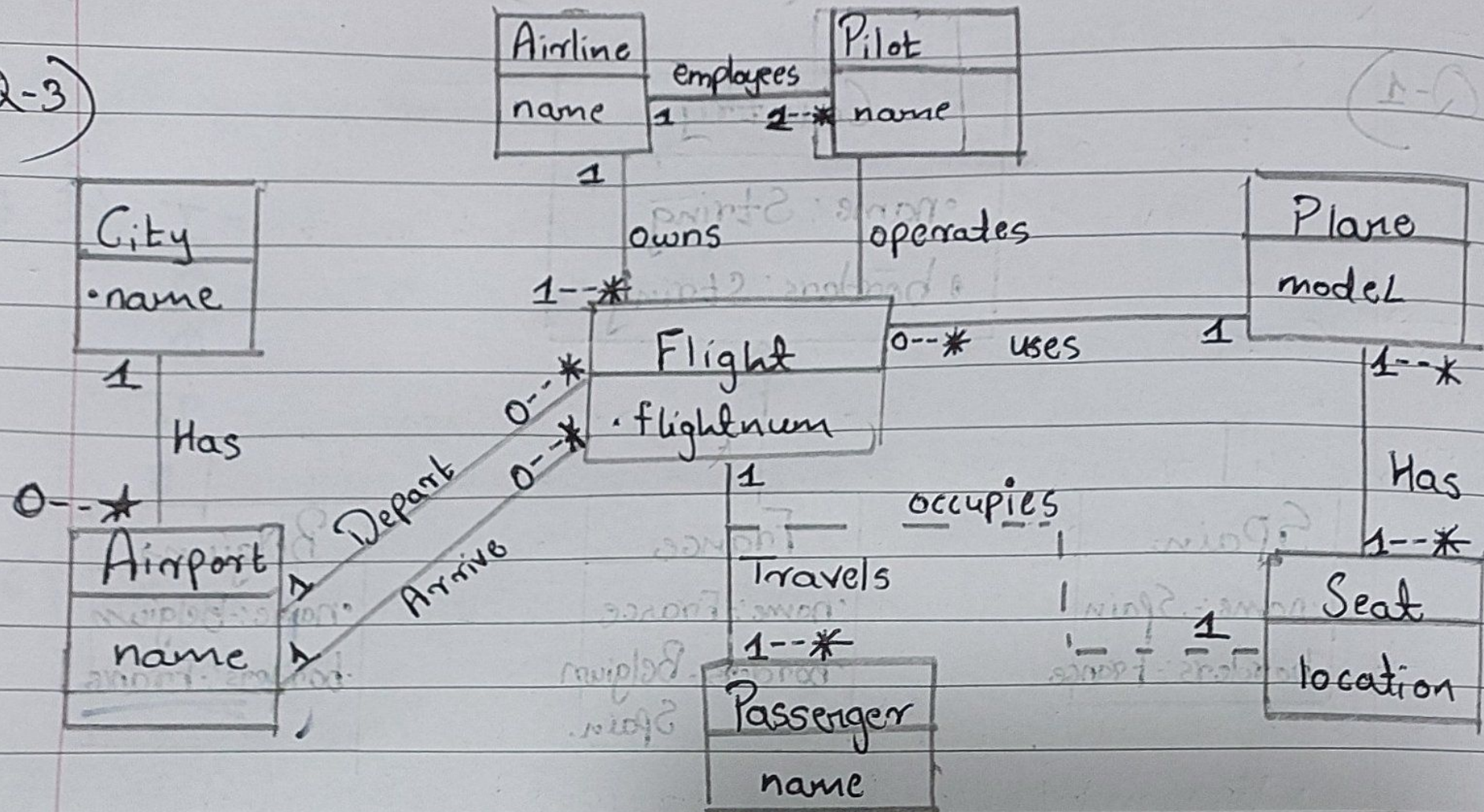   • One point can be part of many polygon.

Lab-4 (202201447)

Q-3)

ER Diagram:

- **Airline** — name
- **Pilot** — name
- employees: Airline 1 — 1--* Pilot
- **City** — •name
- **Plane** — model
- **Flight** — •flightnum
- owns: Airline 1 — 1--* Flight
- operates: Pilot — 0--* Flight
- uses: Flight 0--* — 1 Plane
- Has: City 1 — 0--* Airport
- **Airport** — name
- Depart: Airport 1 — 0--* Flight
- Arrive: Airport 1 — 0--* Flight
- Travels: Flight 1 — 1--* Passenger
- occupies: Flight 1 — 1 Seat
- Has: Plane 1--* — 1--* Seat
- **Seat** — location
- **Passenger** — name

Q-4)

Aircraft
- type
- state
- isairborne(-)
- no of pilot needed

1--*

1 owns

Airline
- ID

operates

1

1--*

Flight
- ID
- Arrival time
- Departure time

1--*

1

Airport
- ID
- Location

1--*

1

employees

1--*

Pilot
- ID
- name
- experiencelevel

role

1

Pilot role
- role
- minexperience

1