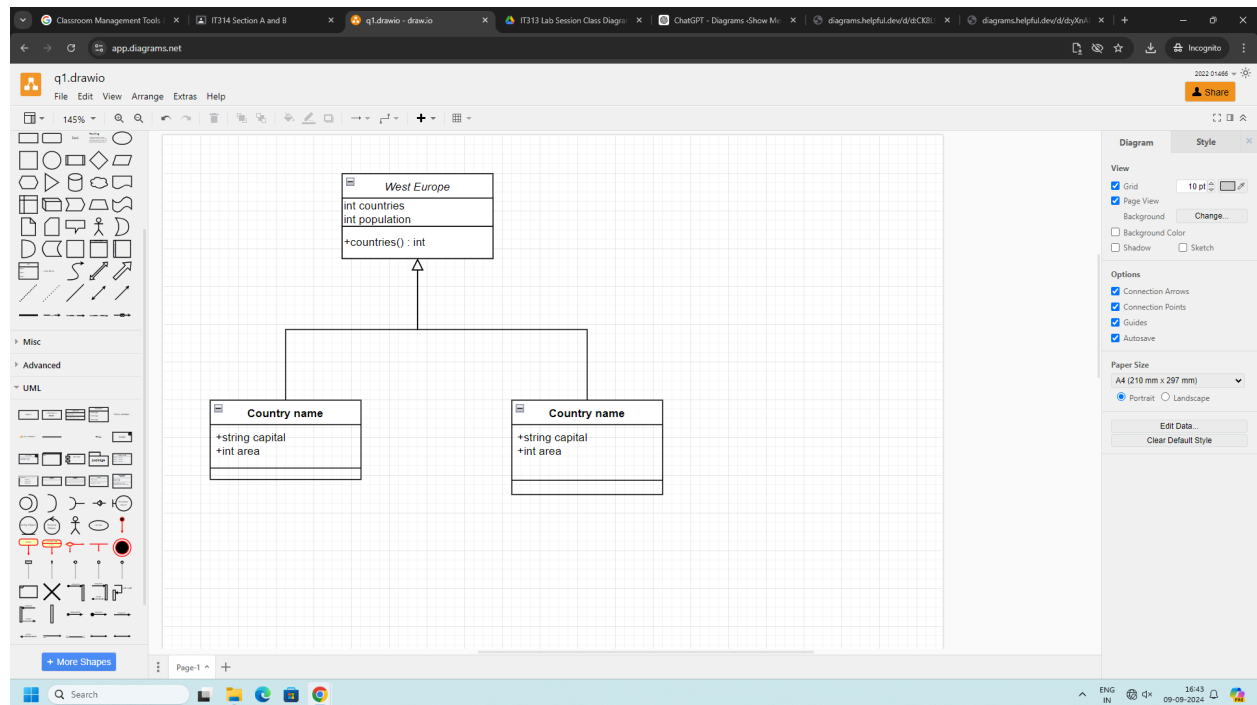SOftware Engineering Lab
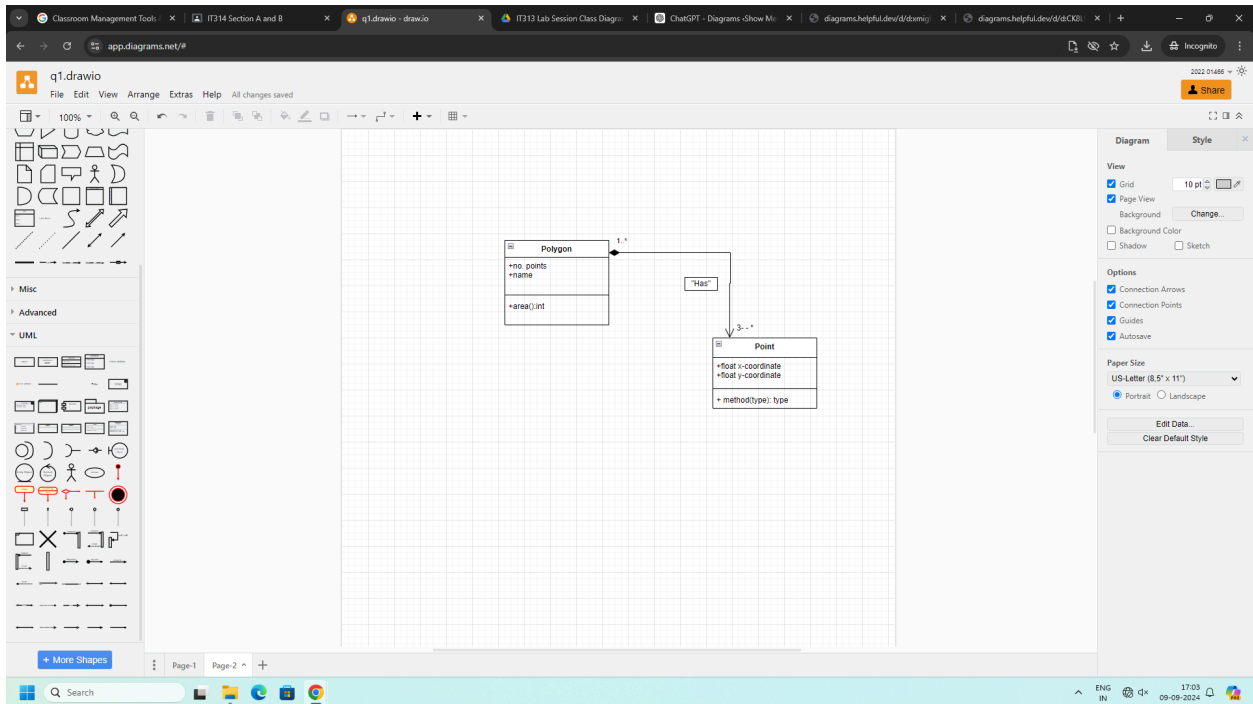202201466 (Aditya Raina)

Q1 Answer:

Explaination : The diagram illustrates the hierarchical structure where "West Europe" contains several countries.

The `Country Name` classes inherit from `West Europe`, suggesting that the countries within West Europe share common properties (like population and number of countries), but they also have unique attributes such as capital and area.

The inheritance arrow points from `Country name` to `West Europe`, indicating a generalization-specialization relationship.
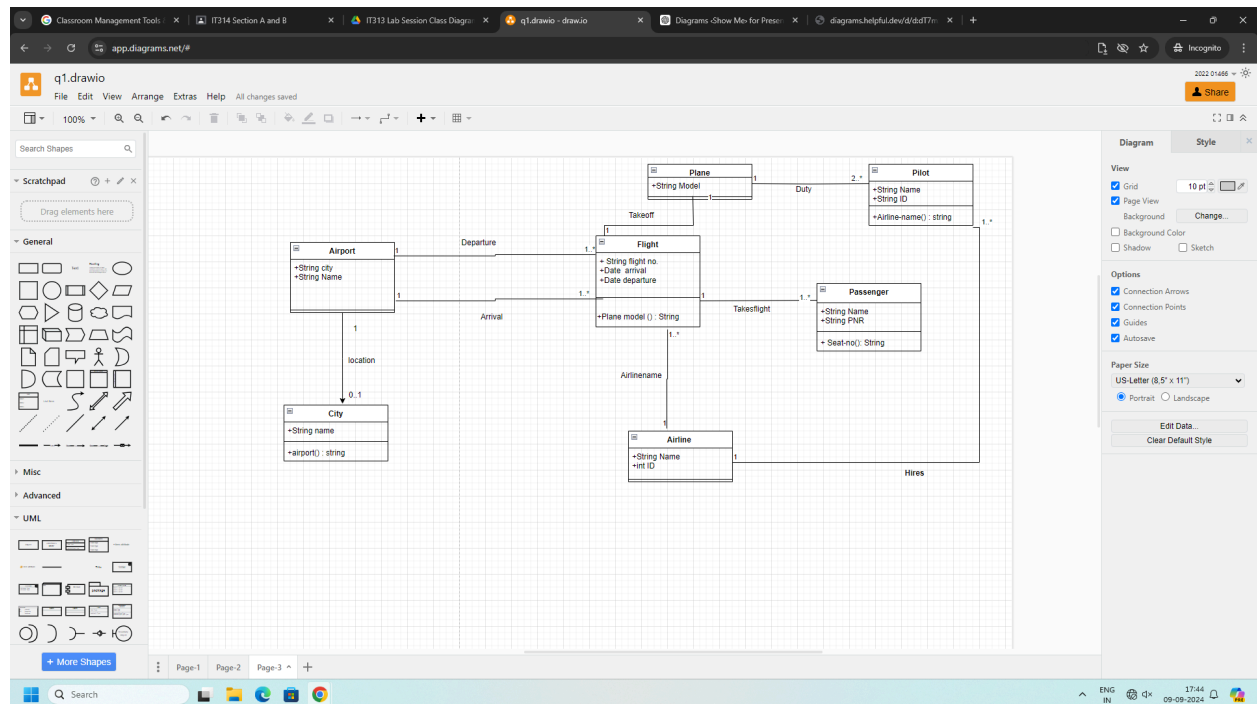
Q2

Explanation :

Minimum 3 points to make a polygon.This relationship is captured as Polygon having a
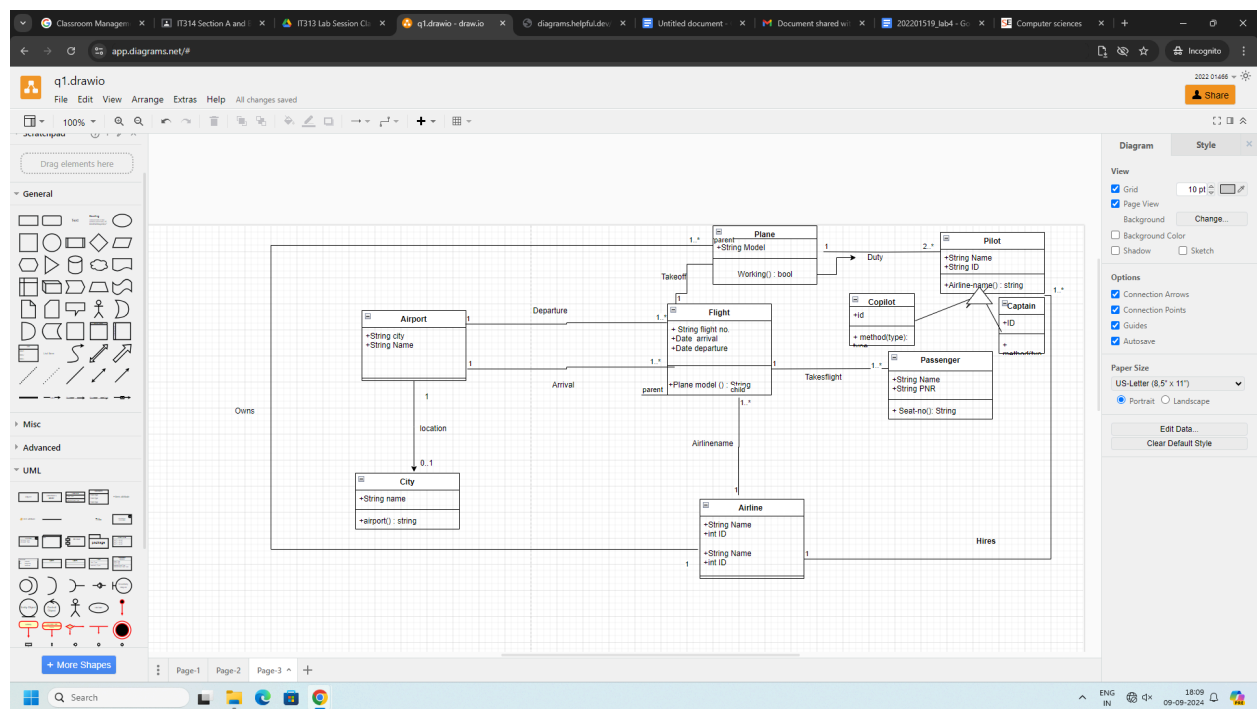"1 to many" (1..*) relationship with Point.

Q3

Explanation:

Figure 3 is a partially completed class diagram of an air transportation system. Add multiplicities
in the diagram. Also add association names to unlevelled associations.

Q4

identifier. Each flight has a pilot and a co-pilot, and it uses an aircraft of a certain type; a flight has also
a departure time and an arrival time. An airline owns a set of aircrafts of different types. An aircraft

can be in a working state or it can be under repair. In a particular moment an aircraft can be landed
or airborne. A company has a set of pilots: each pilot has an experience level: 1 is minimum, 3 is
maximum. A type of aeroplane may need a particular number of pilots, with a different role (e.g.:
captain, co-pilot, navigator): there must be at least one captain and one co-pilot, and a captain must
have a level 3.