Application of coordinate geometry in geospatial search algorithms
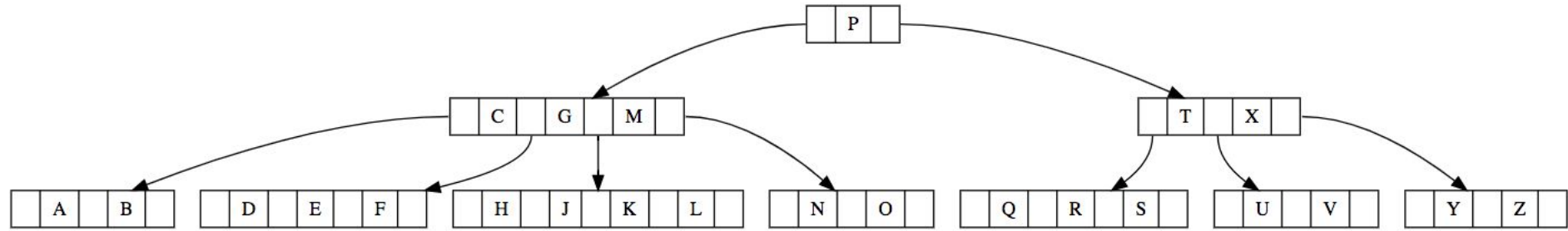
Outline and Outcomes

Outline

- What are indices and why are they important?
- What is a bounding box?
-

Outcomes

- Basic understanding of search indices
- The reasoning behind geospatial search

What are indices and why do we need them?
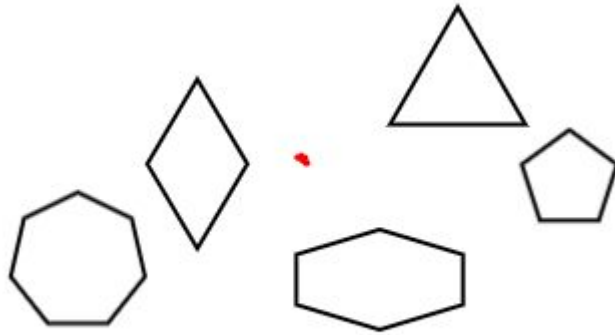
Few definitions to keep in mind:

-> A geospatial object is called a shape

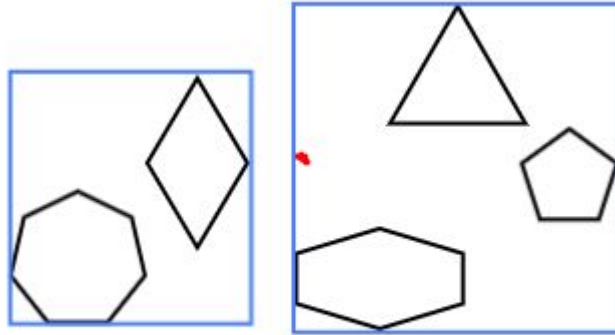-> Bounding Box - a rectangle that can completely enclose an shape

-> A rectangle can be represented by two pairs of coordinates
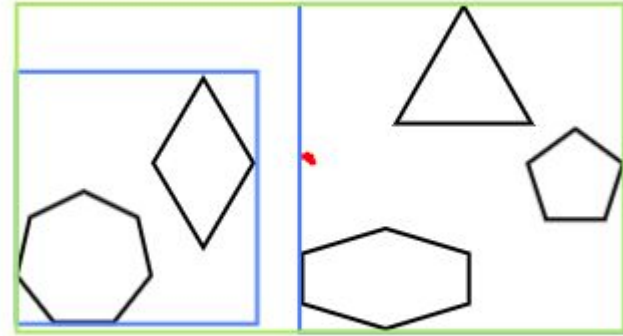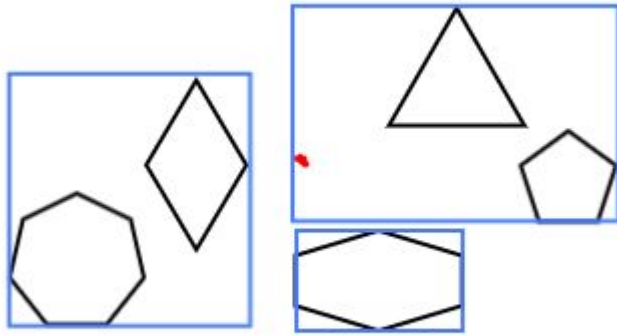
The million dollar question!

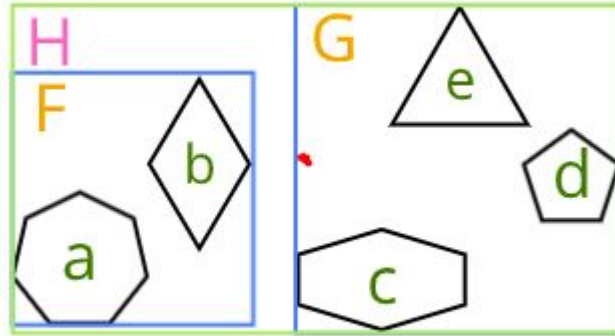So if there are a few shapes, how do you tell which shape the point lies inside?
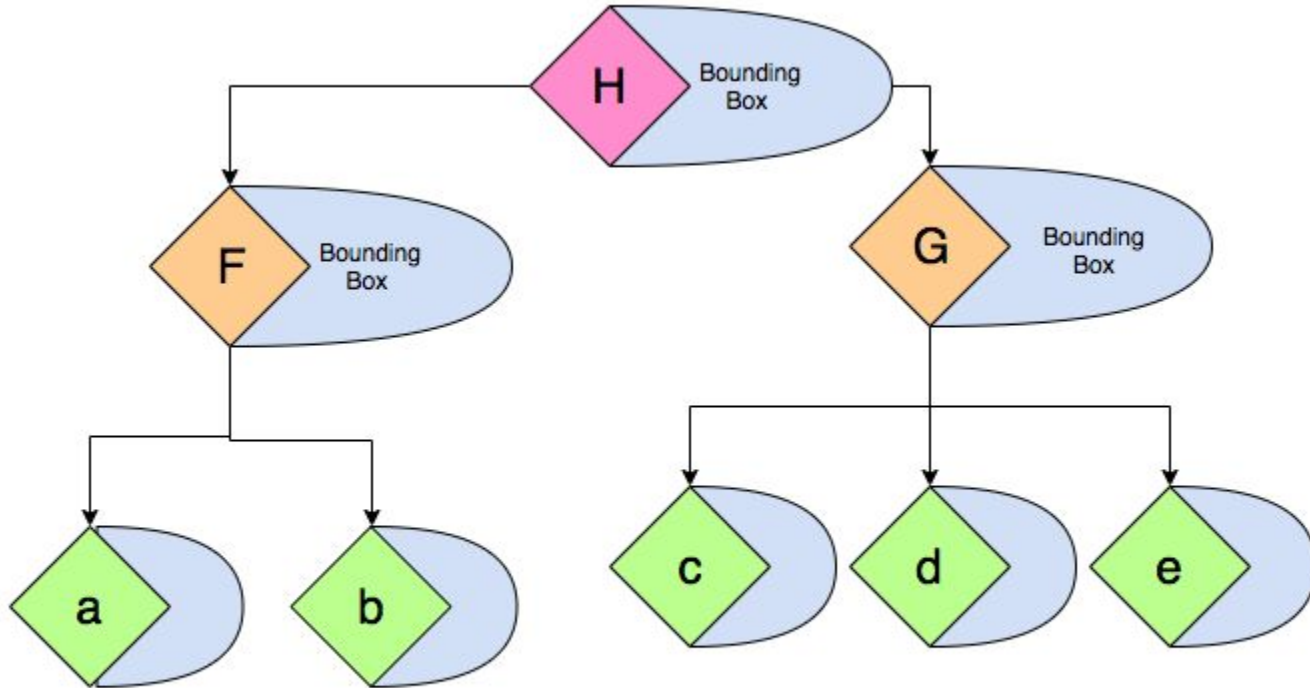
Step1 - Add bounding boxes!

But how do we decide the bounding boxes?

Working of a spatial index

Working of a spatial index

Thank you