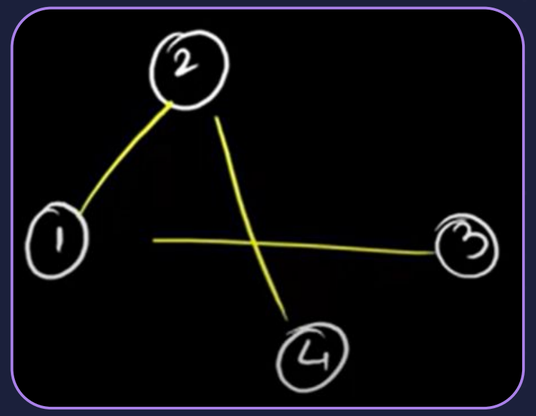
PW SKILLS

Graph Databases

What are graph databases

- A graph-based database is used to store data with a structure that resembles a graph.
  1, 2, 3, 4 are the vertices (entities) and the line connecting them are the edges (relationships).

- Graph is a complex collection of vertices and edges



When to use Graph Databases

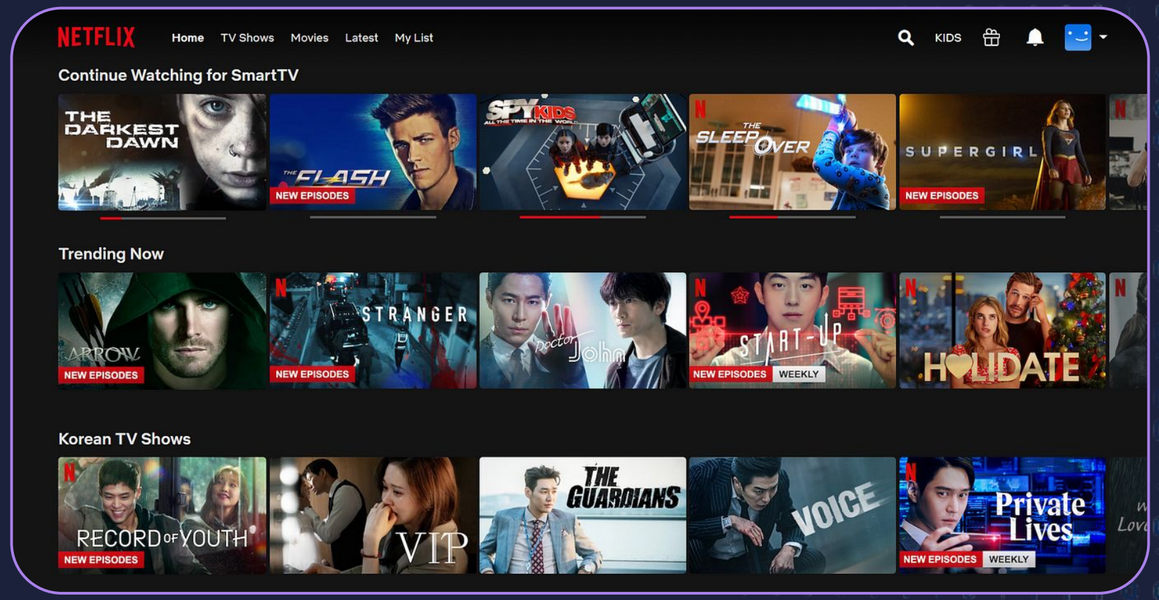
- **For social media networks**

  Let us take the example LinkedIn, where we see that the people connected to us are first degree connections; people connected to out connections are second degree connection and similarly the further ones are 3rd degree connections. This kind of mapping for all the accounts is compex and it makes use of graph databases.

When to use Graph Databases

- **Recommendations on OTT**

You must have observed that you get few suggestions on OTTs like Netflix and youtube. These are based on outcome of the combination of what you have surfed in the past and the relationships between them.



When to use Graph Databases

- **Fraud detection**

  It has to do with the past events + other frauds + connection between them and it is done with drawing a complex relationship between each event. Hence, graph databases are used.

Challenges of graph databases

- Modelling data in the form of vertices and edges is difficult
- Graph grows big if not structured properly which can lead to slow query results
- Scaling becomes difficult because of the complexity in structure of graph databases.

*The most widely used Graph Database is Neo4J


SKILLS
THANK YOU