Faculty Of Arts

Cairo University

GIS 2 (Advanced Level)

Lecture (3): Network Analysis (1)

By:

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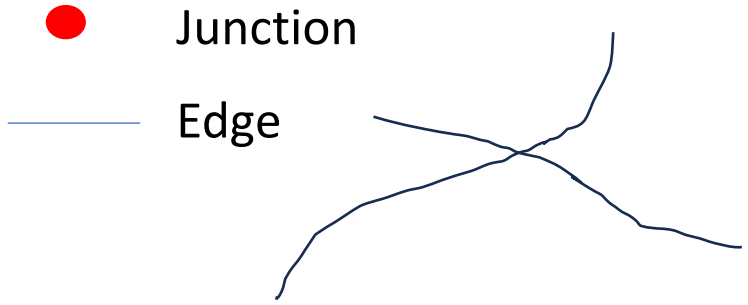
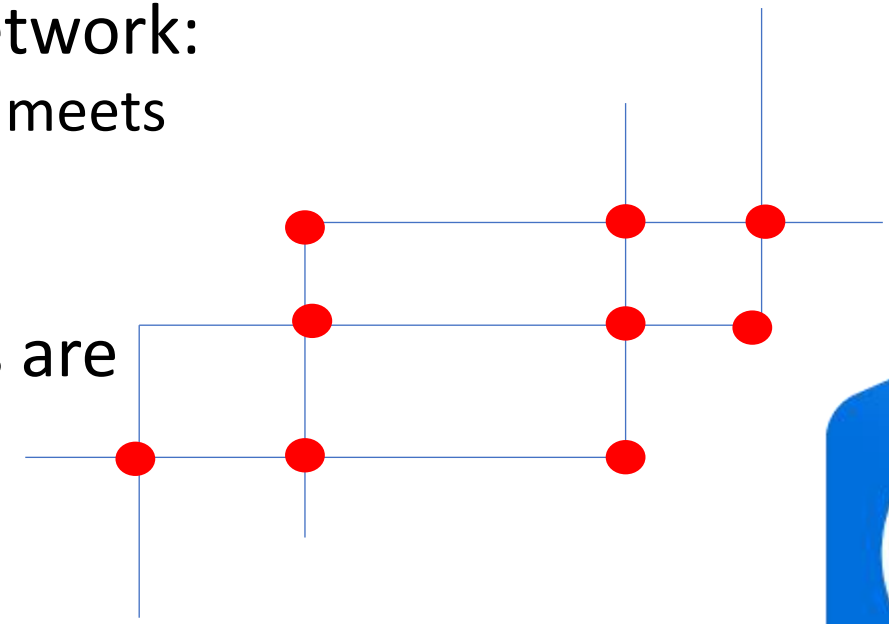
What is Network ?



- Network Analysis are the techniques that used to study how things travel along paths.

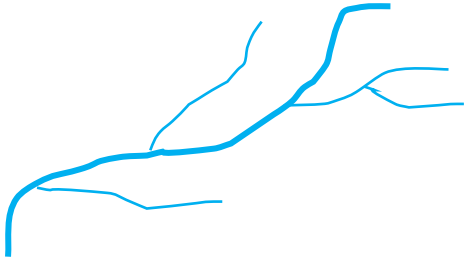
- There are two main components of network:
  1) Junctions (Nodes): places where edges meets
  2) Edges (Paths).

- Junction represents a point that edges are connected.
- Junctions can be endpoint, or vertex.

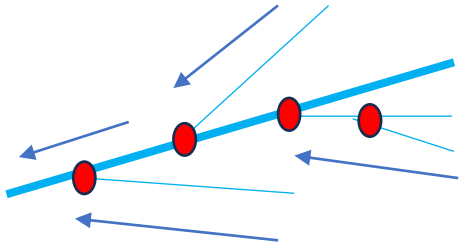


Network Types:

- There 2 types of Network:
  1) Geometric Network: represents the actual geographic configuration of network.

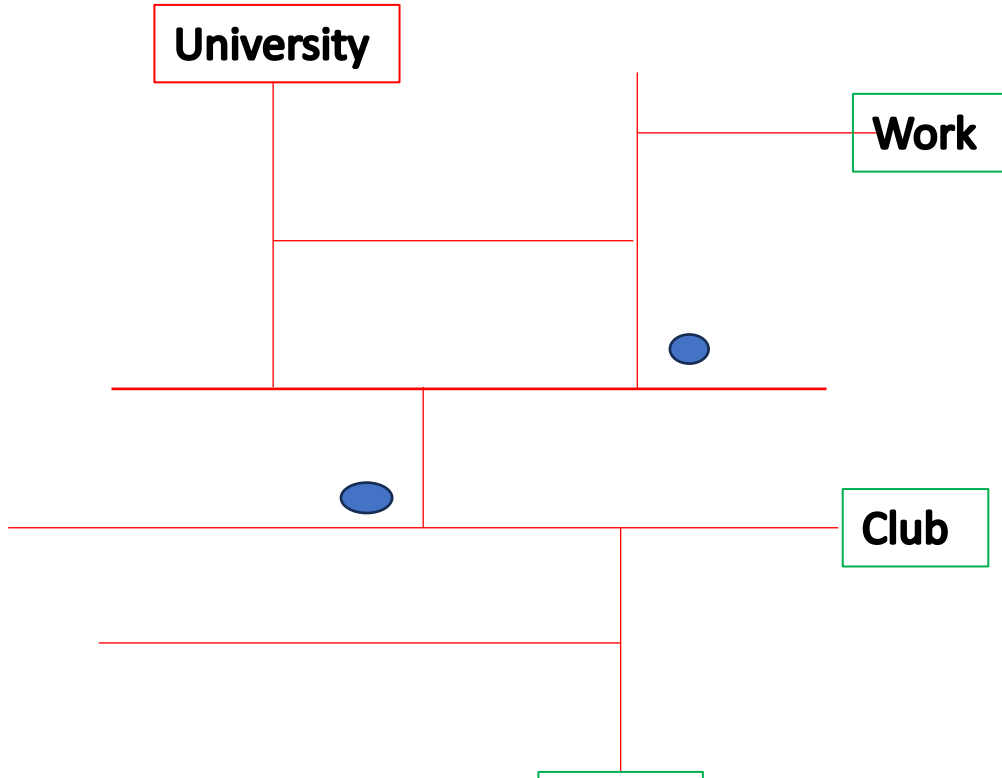


2) Logical Network: represents information about flow and connectivity (more simplified and abstracted).

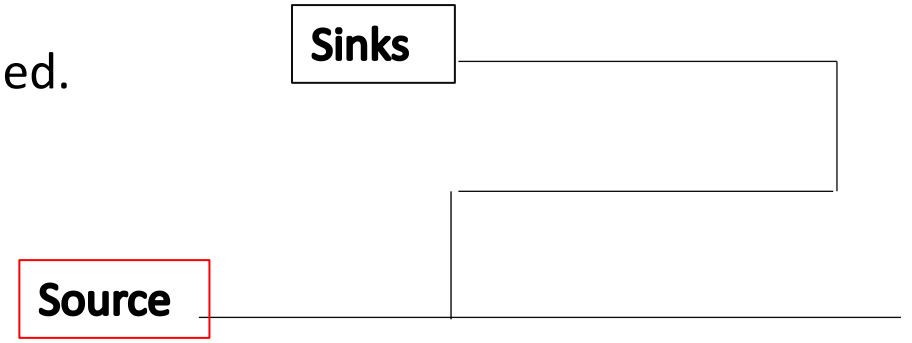


Logical Network:

- There are 2 main types of logical network:
  1) Transportation Network:
     - Few Constraints on the travel.
     - Can enter and exit the network at any point.



  2) Utility Network:
     - Highly directed.
     - Enter and exit points are specified.



Drawing Transportation Network:

- Dividing roads into segments by intersections.
- Draw align with directions. (FT, TF). (onedirection)
- Tables is: (Name, onedirection, speed, time).