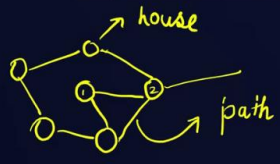
Graph Traversal

100 houses

- **Graph traversal** refers to the process of visiting (checking and/or updating) each vertex(node) in a graph.
- Sequence of steps known as Graph traversal algorithm can be used to traverse a graph
- Two Algorithms of Graph Traversal are:
  - *Breadth First Search (BFS)*
  - *Depth First Search (DFS)*



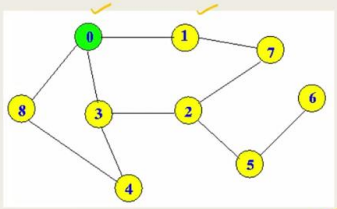
0, 1, 2

7

7 7 8 9

Exploring a Vertex (Node)

- We have already looked into tree traversal algorithms in our section on trees
- In a typical Graph Traversal algorithm, we traverse through (or visit) all the nodes of a graph and add it to the collection of visited nodes
- Exploring a vertex in a graph means visiting all the connected vertices.



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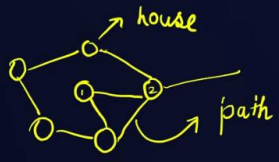
100 houses

Graph

- **Graph traversal** refers to the process of visiting (checking and/or updating) each vertex(node) in a graph.
- Sequence of steps known as Graph traversal algorithm can be used to traverse a graph
- Two Algorithms of Graph Traversal are:
  - *Breadth First Search (BFS)* → Queue DS
  - *Depth First Search (DFS)* → Stack DS



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Queue DS:

0, 1, 2, 4, 3

0 is explored