ILLINOIS

Graph ADT

Learning Objectives

1. Understand the Graph ADT

Graph Implementation Notes

1. No standard graph ADT

2. Depending on the application, graphs may have different functions and underlying data structures

Graph ADT - Constructing

Functions:

- insertVertex(K key);
- insertEdge(Vertex v1, Vertex v2, K key);

- removeVertex(Vertex v);
- removeEdge(Vertex v1, Vertex v2);

Graph ADT - Informational Queries

Functions
- incidentEdges(Vertex v);
- areAdjacent(Vertex v1, Vertex v2);

Graph ADT - Directed Graphs

Functions
- origin(Edge e);
- destination(Edge e);