Definition of Graph

Graphs are non-linear data structures made up of two major components:

Vertices: are entities in a graph	Edges: represent the relationship between the vertices in the graph
Graph's Goal	
Used to visualize organized data and to represent places and the distance between them.	
Types of Graphs:	Based on Direction:
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	Directed Graphs: edge(x,y) != edge(y,x)

Data Structure(Graph)

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Types of Graphs:	
Based on Direction:	Undirected Graphs: edge(x,y) == edge(y,x)
	Directed Graphs: edge(x,y) != edge(y,x)
Based on Weights:	Weighted Graphs: every edge has a value
	Unweighted Graphs: does not have a value associated with every edge.
Special Graphs:	Trees, Directed Acyclic Graphs, Complete Graphs
Implementation:	
	Graphs are easily built out of lists and dictionaries as in figure(1).
	This graph has six nodes (A-F) and eight edges as in figure(2).