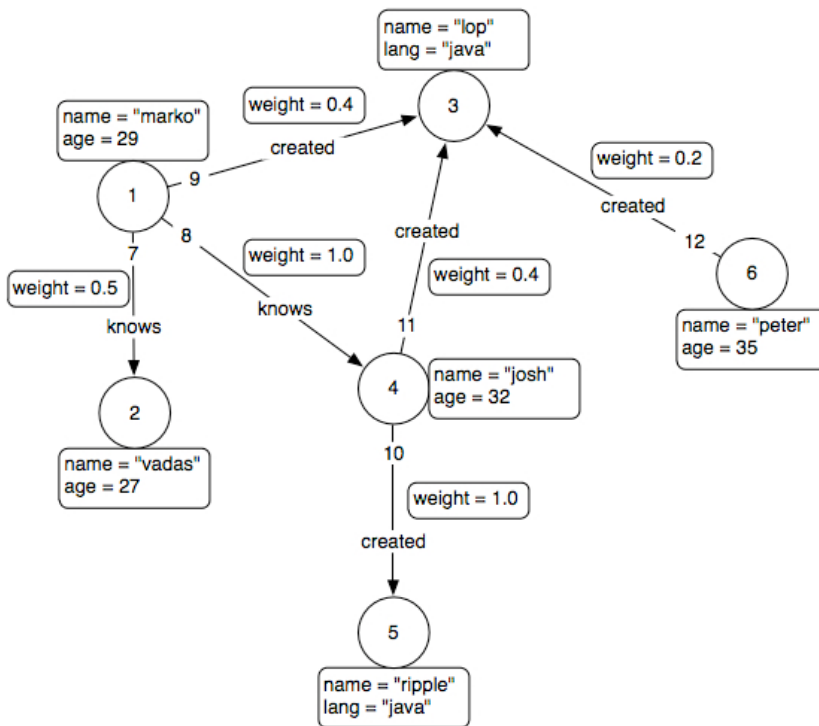




# Property Graph Model

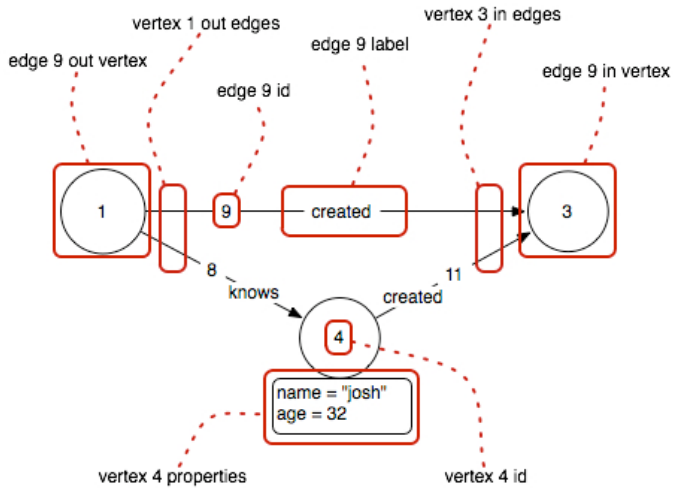
Page History



Blueprints provides a set of interfaces for the property graph data model. An example instance is diagrammed above. In order to make a data management system “Blueprints-enabled,” the Blueprints interfaces must be implemented. However, note that there are various `Graph` interfaces, each with different types of functionality. For example, if an application only needs a `Graph`, then a `TransactionalGraph` implementation is not required of the underlying graph.

The following diagram identifies the names of the different components of a `Graph`. In general, these are the basic components of a property graph.

- **Graph:** An object that contains vertices and edges.
  - **Element:** An object that can have any number of key/value pairs associated with it (i.e. properties)
    - **Vertex:** An object that has incoming and outgoing edges.
    - **Edge:** An object that has a tail and head vertex.



A property graph has these elements:

1. a set of vertices
  - each vertex has a unique identifier.
  - each vertex has a set of outgoing edges.
  - each vertex has a set of incoming edges.
  - each vertex has a collection of properties defined by a map from key to value.
2. a set of edges
  - each edge has a unique identifier.
  - each edge has an outgoing tail vertex.
  - each edge has an incoming head vertex.
  - each edge has a label that denotes the type of relationship between its two vertices.
  - each edge has a collection of properties defined by a map from key to value.

Last edited by okram, a year ago

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