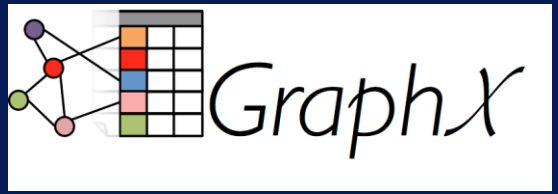
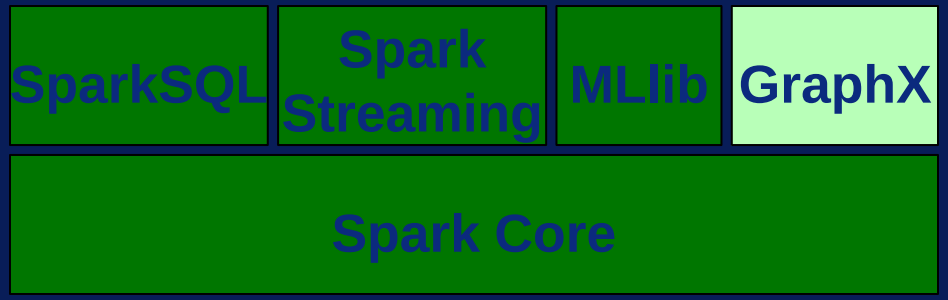
# Spark GraphX



# After this video you will be able to..

- Describe what GraphX is
- Explain how Vertices and Edges are stored
- Describe how Pregel works at a high level




# Spark GraphX

GraphX is Apache Spark's API for graphs and graph-parallel computation.

# GraphX uses a property graph model.

**Both Nodes and Edges can have attributes and values**

# Properties → Tables

## Vertex Table

**Node properties**

## Edge Table

**Edge properties**

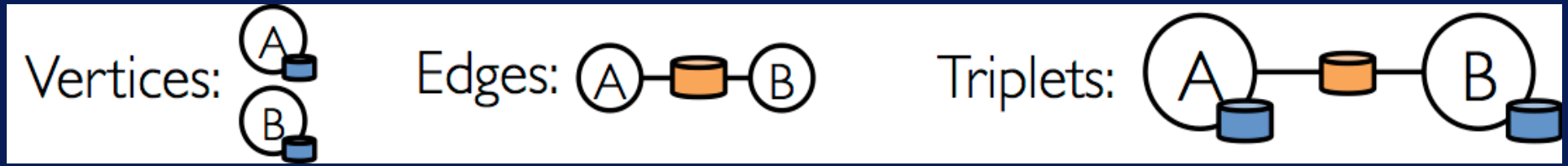
# GraphX uses special RDDs

**VertexRDD[A] extends RDD[(VertexID, A)]**

**EdgeRDD[ED, VD] extends RDD[Edge[ED]]**

# Triplets

**The triplet view logically joins the vertex and edge properties.**




http://spark.apache.org/docs/latest/img/triplet.png

# Pregel API

Bulk-synchronous parallel messaging mechanism

Constrained to the topology of the graph

# GraphX

Graph Parallel Computations

Special RDDs for storing Vertex and Edge information

Pregel operator works in a series of super steps