

Using **typedef**:

- Define data type of **adjacency list**
- Define data type of **vertex** using the **Vertex** class
- Define data type of **subgraph** using the **Subgraph** class
- Define data type of **context** of a task
- Define data type of **task** using the **Task** class

Need to trim adjacency lists?

YES

NO

Define a subclass of **Trimmer**
{ Implement UDF **trim(v)** }

Need an aggregator?

YES

NO

Determine **ValueT, PartialT, FinalT**
Define a subclass of **Aggregator**
{ Determine what fields to maintain
Implement the 6 UDFs
}

Define a subclass of **Comper**

{ Implement UDF **task_spawn(v)**
Implement UDF **compute(subg, context, frontier)**
}

Define a subclass of **Worker**

{ Write a constructor that calls **Worker**'s constructor
//specify number-of-threads, and paths for local files
Implement UDF **toVertex(line)**
Implement UDF **task_spawn(v, task_collector)**
}

Define the main() function

{ **init_worker(&argc, &argv);**
Create **param** and set its **param.input_path**
Create a **worker** object, pass in the **number of compers**
Create trimmer and aggregator objects (if applicable)
Bind them to the worker object (if applicable)
Call the worker object's **run(param)** function
worker_finalize();
}