#### Initial



Figure 1. Initial ERD

The narrative clearly indicates the Customer, work order, task entities. It also defines the attributes. As needed a unique identifier for all the three entities have been selected. A weak entity to include small details related to each task have been included to make the understanding easier and to separate the contents held by Standard tasks entity. Standard tasks entity contain the information related to the types of tasks.

Each task assigned has certain status. The task status contains those details. Since task status is a weak entity, it gets the primary key from the combination of standard tasks and work order. Since certain standard task can be required by many customers at a time, it is important to note the status as per work order.

### **Response:-**



Figure Response ERD

Transformations:

1. New entity ‘Materials’ have been added along with the attributes mentioned in the requirements of the company. The narrative directly mentions the attributes and hence need no further details.
2. Each work order ‘uses’ certain list of materials.
3. Attribute ‘workEstHours is added to the entity ‘Work order’ since the time required for a particular task not only depends on the standard tasks but also on the work order. Estimate hours hence fulfils the need.