

## **P3 - FINAL ERD**

### **GROUP 1**

#### CHANGES MADE IN FINAL ERD:

1. Added an associative entity "COMPLAINT" between Customer and WorkOrder to store the complaints given by customers.  
Attributes of this entity are:
  - Complaint ID as primary Key
  - Complaint Description
  - Complaint Date
  - Complaint Status
  - Customer ID as foreign key
2. Added "SERVICE" entity between Garbage bin and Garbage vehicle where garbage bin is serviced by garbage vehicle. Garbage vehicle collects the waste from bins  
Attributes of this entity are:
  - Service ID
  - Bin ID
  - VehicleID
  - Service Data Time
  - Weight of Garbage
3. A Garbage vehicle is assigned a driver using associative entity "ASSIGNED" and the attributes are:
  - DriverID(PK, FK1)
  - VehicleID(PK, FK2)
  - Assigned\_Date
4. An associative entity "ALLOTMENT" is a ternary relationship between: Garbage Vehicle, Segregation Center and Waste  
It has attributes:
  - WasteType\_ID(PK,FK1)
  - Center ID (PK,FK2)
  - Vehicle\_ID(PK,FK3)
  - Date
  - Total\_Waste\_Generated
5. Added a new Entity "SEGREGATION CENTER" that has two subtypes Recycling center and Garbage Disposal Center
  - Center\_ID
  - Location
  - Total\_waste\_generated
  - Recycling(Y/N)
  - Company\_ID

6. Hierarchical Structure is included to show the segregation of waste where Segregation Centers are divided into two Recycling Center and Garbage disposal Center with Total specialization rule.
  - Segregation Center must be either of the Recycling center or Garbage disposal Center but can't be both, this is shown by the disjoint rule.
  - Segregation Center should be either a Recycling Center or Garbage disposal Center but can't be anything else, this is shown by the Total Specialization rule.
7. Changed Work\_Order\_Entity by adding payment details with foreign keys as : Complaint\_ID and Company\_ID.
8. Added "DRIVER" Entity to store the information of the driver who collects and transports the waste to different destinations.

### FINAL ERD:

