**Business Rules/Assumptions**

1. There is only one accountant
2. The project assumes a certain tax rate
3. Each employee handles at least one contract
4. Each driver notes at least one customer
5. Each customer has only one location
6. The contract ID remains the same even though it is renewed all the other fields will be updated
7. Each customer signs a contract for a year and the order must be a part of the contract
8. A customer cannot place new order if contract is not valid
9. A customer can order multiple items in one order
10. If the customer wishes to renew the contract some attributes in the record would be updated
11. Each order is for one location but is placed by the customer (e.g Heinz College places for Hamburg Hall)
12. A customer schedules returns for an entire order and not for individual items
13. A customer refers other customers and it is noted by the driver
14. A route can have multiple deliveries and returns
15. A driver delivers items for multiple orders via one route
16. If quantity on hand goes below a threshold (6000), items will be filled up by 5000 automatically (Assumed that the vendor of the items will be able to immediately supply them)
17. One driver is assigned to only one route
18. Customer’s emails are unique
19. If any of the ordered item quantity exceeds the quantity on hand than the whole order gets cancelled
20. The address of the location is the same as the address of the customer’s location.
21. Each employee is assigned only one role (never has multiple roles)
22. A customer cannot place any order without paying a bill for the previous order
23. A customer may not be noted by a driver
24. Customers can only return orders they placed
25. Only Accountant has access to bill table
26. Only Delivery Manager can create/update/delete a route
27. Late fee is 10% of total bill per month
28. One order generates one bill
29. Customers must place a return before the bill due date passes
30. The company only sells 5 items
31. The customer can only be of one of the five types

**Business Transactions**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Transaction** | **Table** | **CRUD** | **Description** |
| 1 | Hire a new employee | Employee | C | Create a new record |
| Driver | C | If the new hired employee is driver,  create a new record |
| 2 | Delete an employee | Employee | U | Set an endDate ,  when the employee left |
| Employee | U | Set null on after 3 years have  passed since the employee left |
| 3 | Evaluate an employee | Employee | U | Set an integer value [0,10] on evaluation |
| 4 | Register a lead | Customer | C | Create a new record (isLead = "Y" ) |
| Location | C | Create a new record |
| 5 | Register a customer | Customer | C | Create a new record (isLead = "N") |
| Customer | U | If the customer was a lead,  set "Y" on isLead |
| Location | C | Create a new record  (If the customer was not a lead) |
| 6 | Sign on a contract | Contract | C | Create a new record |
| 7 | Renew a contract | Contract | U | Update the information  (serviceStartDate, serviceEndDate) |
| 8 | Create a route | Route | C | Create a new record |
| 9 | Assign a driver on a route | Route | U | Update information about a driver and the delivery manager |
| 10 | Place an order | Order | C | Create a new record |
| OrderDetails | C | Create new record(s) per item |
| Bill | C | When an order is placed,  a bill for the order will be created |
| Item | U | When an order is placed,  quantityOnHand will be subtracted |
| 11 | Return an order | Order | U | Update return infromation (dateReturned, returnedBy) |
| Bill | U | If the bill has been paid, update totallBill  as the negative value of the previous  totallBill |
| Item | U | If a return is placed,  quantityOnHand will be added |
| 12 | Schedule a delivery | DeliverySchedule | C | Create a new record |