|  |  |  |
| --- | --- | --- |
| **Attribute** | **Data type** | **Constraints** |
| Employee\_ID | VARCHAR(10) | Primary Key |
| FirstName | VARCHAR(45) | Not Null |
| MiddleName | VARCHAR(45) | Not Null |
| LastName | VARCHAR(45) | Not Null |
| DateOfBirth | DATE | Not Null |
| DateOfJoining | DATE | Not Null |
| ContactNumber | VARCHAR(10) | Not Null |
| Address | VARCHAR(90) | Not Null |
| BloodGroup | VARCHAR(3) | Not Null |
| EmergencyContact | VARCHAR(10) | Not Null |
| Photo | BLOB | Not Null |
| Resume | BLOB | Not Null |
| EmailID | VARCHAR(45) | Not Null |
| Gender | VARCHAR(1) | Not Null |
| AdharNumber | VARCHAR(12) | Not Null |

Entity 1 : employee\_personal\_details

Entity 2 : employee\_work\_experience

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Data type** | **Constraints** |
| Employee\_ID | VARCHAR(10) | Primary Key, Foreign Key |
| LastJob | VARCHAR(45) | Not Null |
| YearsOfExperience | INT(2) | Not Null |
| Place | VARCHAR(45) | Not Null |

Entity 3 : employee\_working\_details

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Data type** | **Constraints** |
| Employee\_ID | VARCHAR(10) | Primary Key, Foreign Key |
| WorkingHours | INT(2) | Not Null |
| NumberOfDaysPresent | INT(3) | Not Null |
| NumberOfDaysOnLeave | INT(3) | Not Null |
| ManagerID | VARCHAR(10) | Foreign Key, Not Null |
| Rating | INT(1) | Not Null |
| Post\_ID | VARCHAR(10) | Foreign Key, Not Null |
| Franchisee\_ID | VARCHAR(10) | Foreign Key, Not Null |

Entity 4 : franchisee

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Data type** | **Constraints** |
| Franchisee\_ID | VARCHAR(10) | Primary Key |
| Owner\_ID | VARCHAR(10) | Primary Key |
| Franchisee\_Area\_Name | VARCHAR(45) | Not Null |

Entity 5 : franchisee\_details

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Data type** | **Constraints** |
| Franchisee\_ID | VARCHAR(10) | Primary Key, Foreign Key |
| Landmark\_I | VARCHAR(45) | Not Null |
| Landmark\_II | VARCHAR(45) | - |
| Area | VARCHAR(45) | Not Null |
| City | VARCHAR(20) | Not Null |
| State | VARCHAR(20) | Not Null |
| Pin\_No | VARCHAR(6) | Not Null |
| ContactNo | VARCHAR(10) | Not Null |
| OpeningTime | TIME(2) | Not Null |
| ClosingTime | TIME(2) | Not Null |

Entity 6 : owner\_details

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Data type** | **Constraints** |
| Owner\_ID | VARCHAR(10) | Primary Key, Foreign Key |
| FirstName | VARCHAR(45) | Not Null |
| MiddleName | VARCHAR(45) | Not Null |
| LastName | VARCHAR(45) | Not Null |
| ContactNo | VARCHAR(10) | Not Null |
| EmailID | VARCHAR(45) | Not Null |

Entity 7 : customer\_record

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Data type** | **Constraints** |
| Customer\_ID | VARCHAR(10) | Primary Key, Foreign Key |
| Date | DATE | Primary Key |
| Time | TIME(2) | Primary Key |
| Food\_ID | VARCHAR(10) | Primary Key, Foreign Key |
| Quantity | INT(3) | Not Null |

NORMALISATION

1 NF : The tables are already normalized in the first form since there are no multi valued attributes. Hence each field can accept only one value.

2 NF :

Splitting Entity 4 franchisee

Entity 4.1

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Data type** | **Constraints** |
| Franchisee\_ID | VARCHAR(10) | Primary Key |
| Franchisee\_Area\_Name | VARCHAR(45) | Not Null |

Entity 4.2

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Data type** | **Constraints** |
| Franchisee\_ID | VARCHAR(10) | Primary Key |
| Owner\_ID | VARCHAR(10) | Primary Key |

Entity raw\_material

Entity rw.1

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Data type** | **Constraints** |
| Raw\_Material\_ID | VARCHAR(10) | Primary Key |
| Quantity | INT(3) | Not Null |
| Date | DATE | Primary Key |
| Price | FLOAT | Not Null |
| Food\_ID | VARCHAR(10) | Primary Key,Foreign Key |

Entity rw.2

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Data type** | **Constraints** |
| Raw\_Material\_ID | VARCHAR(10) | Primary Key |
| Raw\_Material\_Name | VARCHAR(45) | Not Null |

QUERIES

1. The performance of employee is measured by the average of all the ratings given by the manager/customers.
2. List of customers which visit a particular franchisee frequently.
3. The most profitable customer amongst all franchisees.
4. The most preferred food item of a particular customer.
5. Provision of offers and discounts on a registered customer’s birthday. (Sending text message)
6. Most used raw material.
7. The aggregate of the quantity and cost of a particular raw material ordered over a period of time.
8. Checking the regularity of an employee.
9. Total number of employees under a particular manager.
10. Fetching manager of a particular employee in order to file complaints or for appreciation.
11. Cost of raw materials incurred for a food item.
12. Total sales of a particular franchisee.
13. The most demanded food item in a particular franchisee.
14. Number of franchisees owned by one owner.
15. Total numbers of days since the employee is working with a particular franchisee**.**
16. Fetching various personal and working details of the employee.
17. Details of various franchisees can be obtained which can help the head chain know important details like opening and closing time, owner of the franchisee, contact number of the franchisee etc.
18. Identifying the various details of customers.
19. **The total profit gained by a particular food item can be calculated and hence we can know the highest grossing food item.**
20. **The most frequent customer amongst all franchisees.**
21. **Mailing daily report of a franchisee to it’s owner.**
22. **Total amount of money which goes into the salary of employees.**
23. **Total profit for each franchisee.**
24. **Comparing various aspects of two franchisees.**
25. **Number of employees working on a particular post in a particular franchisee.**
26. **Bill of a particular customer generated after an order placed. (Using stored procedure)**
27. **The most ordered food item at a particular time slot.**
28. **Ordering raw materials according to the most frequently ordered food item.**
29. **Highest grossing franchisee.**
30. **Provision of offers and discounts on a registered customer’s birthday. (Discount on bill)**
31. **Salary of an employee calculated according to the working hours and the post.**
32. **Listing the irregular employees and fetching his/her details in order to contact them.**
33. **The amount of money which goes in the purchase of raw materials.**