Municipal Complaint Management System – Milestone 3 Report

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# Table: Citizen

Metadata:

|  |  |  |
| --- | --- | --- |
| Column Name | Data Type | Key/Constraint |
| Citizen\_ID | INT | PRIMARY KEY |
| Name | VARCHAR(100) |  |
| Address | VARCHAR(200) |  |
| Email | VARCHAR(100) |  |
| Phone | VARCHAR(15) |  |

Sample Data:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Citizen\_ID | Name | Address | Email | Phone |
| 1 | Ali Khan | 123 Street, City | ali@example.com | 03001234567 |
| 2 | Sara Ahmed | 456 Road, Town | sara@example.com | 03111234567 |

# Table: Department

Metadata:

|  |  |  |
| --- | --- | --- |
| Column Name | Data Type | Key/Constraint |
| Dept\_ID | INT | PRIMARY KEY |
| Dept\_Name | VARCHAR(100) |  |
| Dept\_Head | VARCHAR(100) |  |

Sample Data:

|  |  |  |
| --- | --- | --- |
| Dept\_ID | Dept\_Name | Dept\_Head |
| 1 | Sanitation | Mr. Farooq |
| 2 | Water Supply | Ms. Nida |

# Table: Employee

Metadata:

|  |  |  |
| --- | --- | --- |
| Column Name | Data Type | Key/Constraint |
| Emp\_ID | INT | PRIMARY KEY |
| Dept\_ID | INT | FOREIGN KEY REFERENCES Department(Dept\_ID) |
| Name | VARCHAR(100) |  |
| Position | VARCHAR(50) |  |

Sample Data:

|  |  |  |  |
| --- | --- | --- | --- |
| Emp\_ID | Dept\_ID | Name | Position |
| 1 | 1 | Kashif | Cleaner |
| 2 | 2 | Zain | Technician |

# Table: Complaint

Metadata:

|  |  |  |
| --- | --- | --- |
| Column Name | Data Type | Key/Constraint |
| Complaint\_ID | INT | PRIMARY KEY |
| Citizen\_ID | INT | FOREIGN KEY REFERENCES Citizen(Citizen\_ID) |
| Complaint\_Type | VARCHAR(100) |  |
| Description | TEXT |  |
| Date | DATE |  |
| Status | VARCHAR(50) |  |

Sample Data:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Complaint\_ID | Citizen\_ID | Complaint\_Type | Description | Date | Status |
| 1 | 1 | Water Leakage | Leak in main pipe | 2025-01-15 | Resolved |
| 2 | 2 | Garbage | Garbage not collected | 2025-02-10 | Pending |

# Table: Complaint\_Assignment

Metadata:

|  |  |  |
| --- | --- | --- |
| Column Name | Data Type | Key/Constraint |
| Assignment\_ID | INT | PRIMARY KEY |
| Complaint\_ID | INT | FOREIGN KEY REFERENCES Complaint(Complaint\_ID) |
| Emp\_ID | INT | FOREIGN KEY REFERENCES Employee(Emp\_ID) |
| Assignment\_Date | DATE |  |
| Resolution\_Date | DATE |  |

Sample Data:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Assignment\_ID | Complaint\_ID | Emp\_ID | Assignment\_Date | Resolution\_Date |
| 1 | 1 | 2 | 2025-01-16 | 2025-01-18 |
| 2 | 2 | 1 | 2025-02-11 | NULL |

# SQL Queries

-- SELECT with JOIN  
SELECT c.Name, cmp.Complaint\_Type, cmp.Status  
FROM Citizen c  
JOIN Complaint cmp ON c.Citizen\_ID = cmp.Citizen\_ID;  
  
-- INSERT  
INSERT INTO Citizen (Citizen\_ID, Name, Address, Email, Phone)   
VALUES (3, 'Hina Sohail', '789 New Town', 'hina@example.com', '03501234567');  
  
-- UPDATE  
UPDATE Complaint  
SET Status = 'Resolved'  
WHERE Complaint\_ID = 2;  
  
-- DELETE  
DELETE FROM Employee WHERE Emp\_ID = 2;