

LOST AND FOUND PORTAL



DATABASE MANAGEMENT SYSTEM PROJECT

Report By

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PROBLEM STATEMENT:

In large institutions such as colleges, universities, and hostels, it is common for students and staff to misplace or lose personal belongings. These items often remain unclaimed due to the absence of a centralized system that can efficiently connect the person who lost the item with the person who found it. To address this issue, we have designed a Lost and Found Portal that maintains a structured database to manage the reporting, tracking, and claiming of lost and found items within the campus.

OBJECTIVES:

- Allow users to report lost or found items.
- Categorize items for easy search and identification.
- Enable claim requests by rightful owners.
- Include admin verification to validate claims and approve handovers.

ASSUMPTIONS:

1. One user can report multiple lost and found items.
2. Each item (lost/found) is associated with exactly one category.
3. A found item can be claimed by multiple users, but only one claim can be approved.
4. Only registered users can file claims or report items.
5. Admins are responsible for verifying claims and approving valid ones.

TABLES

1. Users

Stores user information (students or admin).

| Attribute | Data Type | Description |
|-----------|-------------|----------------------|
| user_id | VARCHAR(10) | Primary Key |
| name | VARCHAR(30) | |
| email | VARCHAR(50) | Unique |
| phone | VARCHAR(10) | |
| role | VARCHAR(10) | 'Student' or 'admin' |
| password | VARCHAR(20) | |

2. Item_Category

Defines standard categories for items.

| Attribute | Data Type | Description |
|---------------|-------------|-----------------------|
| category_id | INT | Primary Key |
| category_name | VARCHAR(30) | 'Electronics','Books' |

3. Lost_Items

Records reported lost items.

| Attribute | Data Type | Description |
|---------------|--------------|-------------------------------|
| lost_id | VARCHAR(10) | Primary key |
| user_id | VARCHAR(10) | Foreign key(Users) |
| item_name | VARCHAR(50) | |
| category_id | INT | Foreign key(item_category) |
| description | VARCHAR(100) | Optional |
| location_lost | VARCHAR(50) | |
| date_lost | DATE | |
| status | VARCHAR(10) | 'open','claimed','resolved' |

4. Found_Items

Stores found item entries.

| Attribute | Data Type | Description |
|----------------|--------------|-------------------------------|
| found_id | VARCHAR(10) | Primary Key |
| user_id | VARCHAR(10) | Foreign Key(Users) |
| item_name | VARCHAR(50) | |
| category_id | INT | Foreign key(item_category) |
| description | VARCHAR(100) | |
| location_found | VARCHAR(50) | |
| date_found | DATE | |

| | | |
|--------|-------------|------------------------------|
| status | VARCHAR(10) | 'pending','matched','handed' |
|--------|-------------|------------------------------|

5. Claims

Handles claim requests when a user believes a found item is theirs.

| Attribute | Data Type | Description |
|-------------|-------------|---------------------------------|
| claim_id | VARCHAR(10) | Primary key |
| lost_id | VARCHAR(10) | Foreign key(lost_items) |
| found_id | VARCHAR(10) | Foreign Key(found_items) |
| claimant_id | VARCHAR(10) | Foreign key(users) |
| claim_date | DATE | |
| status | VARCHAR(10) | 'pending','approved','rejected' |

6. Admin_Verification

Records admin decision and notes for each claim.

| Attribute | Data Type | Description |
|-----------------|-------------|--------------------------|
| verification_id | VARCHAR(10) | Primary key |
| claim_id | VARCHAR(10) | Foreign key(claims) |
| admin_id | VARCHAR(10) | Foreign key(users) |
| decision_date | DATE | |
| decision | VARCHAR(10) | 'Approved' or 'rejected' |

| | | |
|-------|-------------|---------------|
| notes | VARCHAR(10) | Admin remarks |
|-------|-------------|---------------|

FUNCTIONAL DEPENDENCIES AND PRIMARY KEY:

1. Users

FDs:

$\text{user_id} \rightarrow \{\text{name, email, phone, role, password}\}$

All attributes are dependent on user_id, so $\text{user_id}^+ \rightarrow R$.

Primary Key: user_id

2. Item_Category

FDs:

$\text{category_id} \rightarrow \text{category_name}$

All attributes depend on category_id, so $\text{category_id}^+ \rightarrow R$.

Primary Key: category_id

3. Lost_Items

FDs:

$\text{lost_id} \rightarrow \{\text{user_id, item_name, category_id, description, location_lost, date_lost, status}\}$

All fields are functionally dependent on lost_id, so $\text{lost_id}^+ \rightarrow R$.

Primary Key: lost_id

4. Found_Items

FDs:

$\text{found_id} \rightarrow \{\text{user_id, item_name, category_id, description, location_found, date_found, status}\}$

All fields are functionally dependent on found_id, so $\text{found_id}^+ \rightarrow R$.

Primary Key: found_id

5. Claims

FDs:

$\text{claim_id} \rightarrow \{\text{lost_id}, \text{found_id}, \text{claimant_id}, \text{claim_date}, \text{status}\}$

All fields are dependent on claim_id, so $\text{claim_id}^+ \rightarrow R$.

Primary Key: claim_id

6. Admin_Verification

FDs:

$\text{verification_id} \rightarrow \{\text{claim_id}, \text{admin_id}, \text{decision_date}, \text{decision}, \text{notes}\}$

All fields are dependent on verification_id, so $\text{verification_id}^+ \rightarrow R$.

Primary Key: verification_id

NORMALIZATION

1. Users

- **Primary key:** user_id
- All attributes are functionally dependent on the primary key \rightarrow **2NF**
- No transitive dependencies \rightarrow **3NF**
- Determinant user_id is a super key \rightarrow **BCNF**

2. Item_Category

- **Primary key:** category_id
- All attributes depend on primary key \rightarrow **2NF**
- No transitive dependencies \rightarrow **3NF**
- Determinant is a super key \rightarrow **BCNF**

3. Lost_Items

- **Primary key:** lost_id
- All attributes are directly dependent on lost_id \rightarrow **2NF**

- No transitive dependencies → **3NF**
- Determinant is a super key → **BCNF**

4. Found_Items

- **Primary key:** found_id
- All attributes depend directly on found_id → **2NF**
- No transitive dependencies → **3NF**
- Determinant is a super key → **BCNF**

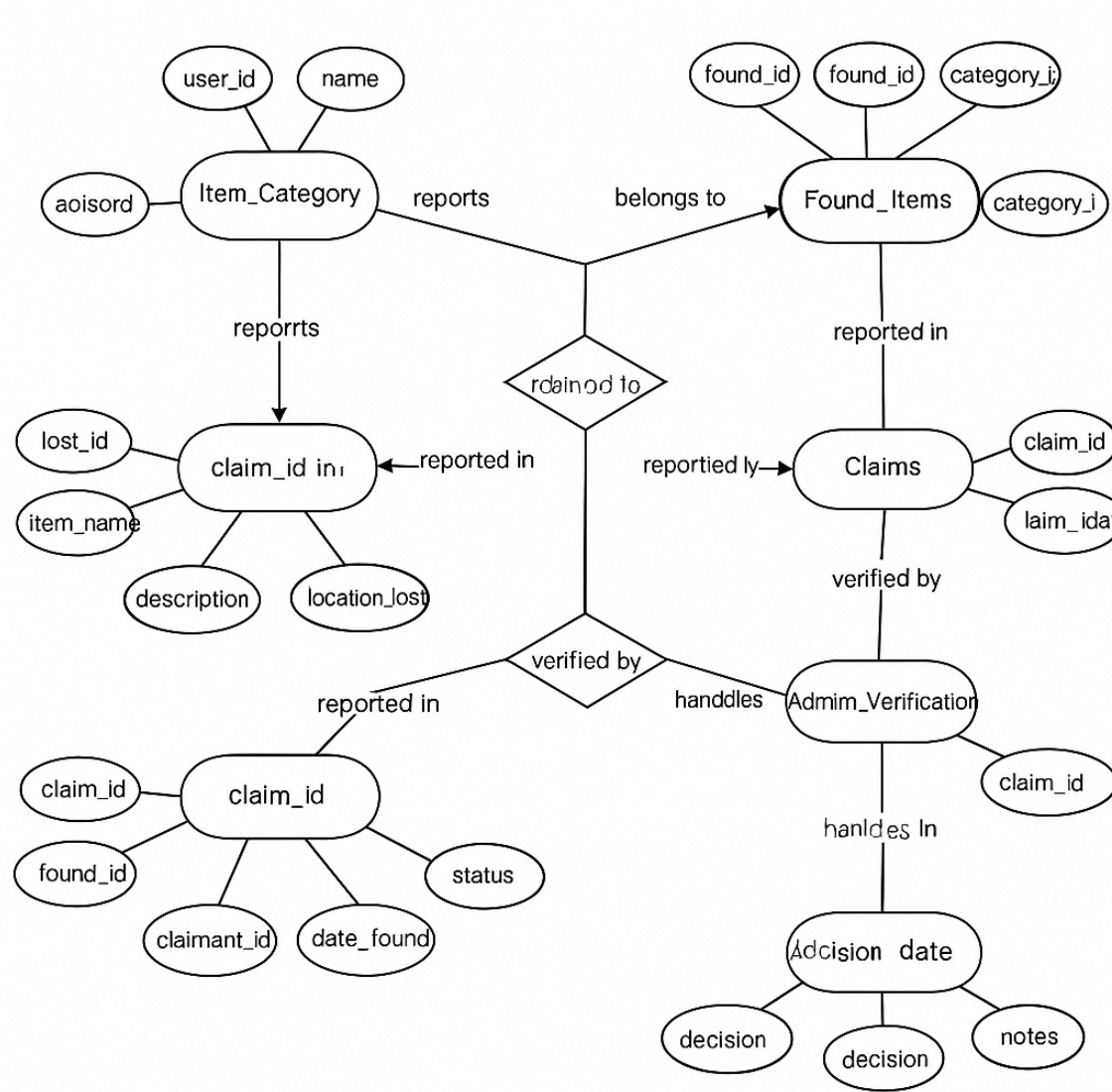
5. Claims

- **Primary key:** claim_id
- All attributes depend directly on claim_id → **2NF**
- No transitive dependencies → **3NF**
- Determinant is a super key → **BCNF**

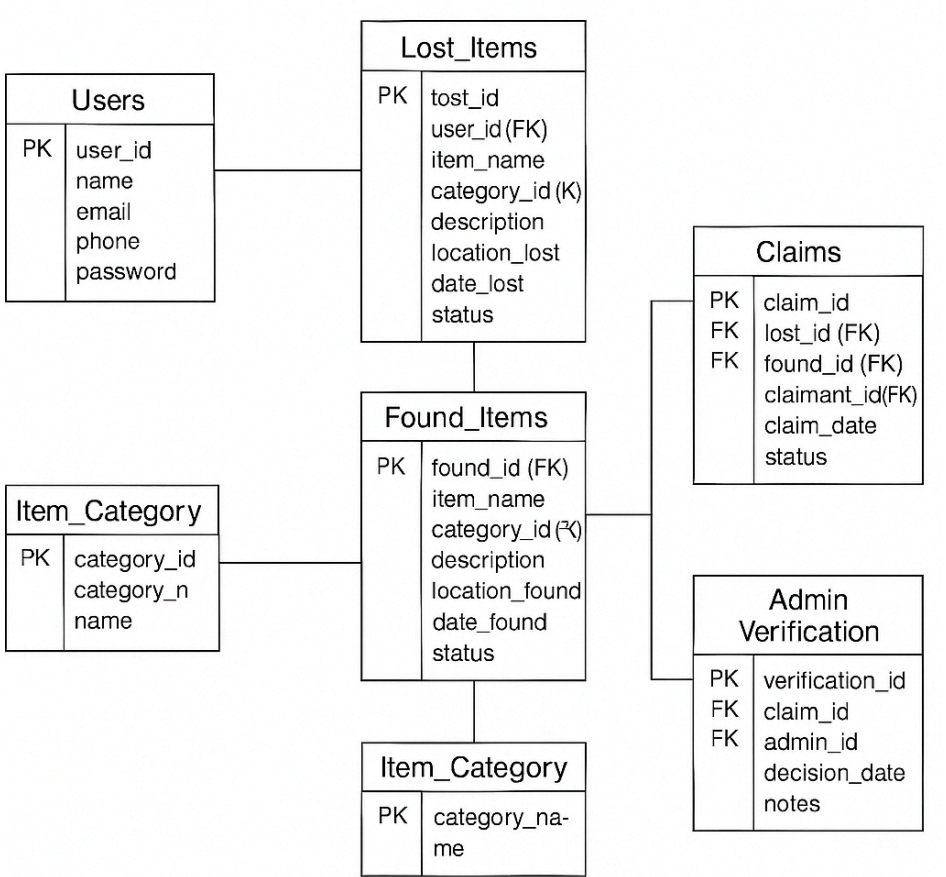
6. Admin_Verification

- **Primary key:** verification_id
- All attributes depend directly on verification_id → **2NF**
- No transitive dependencies → **3NF**
- Determinant is a super key → **BCNF**

ER DIAGRAM:



Relational Schema



CREATION OF TABLES:

1. Users Table:

```
CREATE TABLE Users (  
    user_id VARCHAR(10) PRIMARY KEY,  
    name VARCHAR(30),  
    email VARCHAR(50) UNIQUE,  
    phone VARCHAR(10),  
    role VARCHAR(10), -- 'student' or 'admin'  
    password VARCHAR(20)  
);
```

2. Item_Category Table

```
CREATE TABLE Item_Category (  
    category_id INT PRIMARY KEY,  
    category_name VARCHAR(30) -- 'Electronics', 'Books', etc.  
);
```

3. Lost_Items Table

```
CREATE TABLE Lost_Items (  
    lost_id VARCHAR(10) PRIMARY KEY,  
    user_id VARCHAR(10),  
    item_name VARCHAR(50),  
    category_id INT,
```

```
description VARCHAR(100),  
location_lost VARCHAR(50),  
date_lost DATE,  
status VARCHAR(10), -- 'open', 'claimed', 'resolved'  
FOREIGN KEY (user_id) REFERENCES Users(user_id),  
FOREIGN KEY (category_id) REFERENCES Item_Category(category_id)  
);
```

4. Found_Items Table

```
CREATE TABLE Found_Items (  
    found_id VARCHAR(10) PRIMARY KEY,  
    user_id VARCHAR(10),  
    item_name VARCHAR(50),  
    category_id INT,  
    description VARCHAR(100),  
    location_found VARCHAR(50),  
    date_found DATE,  
    status VARCHAR(10), -- 'pending', 'matched', 'handed'  
    FOREIGN KEY (user_id) REFERENCES Users(user_id),  
    FOREIGN KEY (category_id) REFERENCES Item_Category(category_id)  
);
```

5. Claims Table

```
CREATE TABLE Claims (  
    claim_id VARCHAR(10) PRIMARY KEY,  
    lost_id VARCHAR(10),  
    found_id VARCHAR(10),  
    claimant_id VARCHAR(10),  
    claim_date DATE,  
    status VARCHAR(10), -- 'pending', 'approved', 'rejected'  
    FOREIGN KEY (lost_id) REFERENCES Lost_Items(lost_id),  
    FOREIGN KEY (found_id) REFERENCES Found_Items(found_id),  
    FOREIGN KEY (claimant_id) REFERENCES Users(user_id)  
);
```

6. Admin_Verification Table

```
CREATE TABLE Admin_Verification (  
    verification_id VARCHAR(10) PRIMARY KEY,  
    claim_id VARCHAR(10),  
    admin_id VARCHAR(10),  
    decision_date DATE,  
    decision VARCHAR(10), -- 'approved', 'rejected'  
    notes VARCHAR(100),  
    FOREIGN KEY (claim_id) REFERENCES Claims(claim_id),  
    FOREIGN KEY (admin_id) REFERENCES Users(user_id)  
);
```

```
mysql> show tables;
+-----+
| Tables_in_lostandfound |
+-----+
| admin_verification     |
| claims                 |
| found_items            |
| item_category          |
| lost_items             |
| users                  |
+-----+
6 rows in set (0.00 sec)
```

INSERTING OF DATA INTO TABLES

1. User Table

```
INSERT INTO Users VALUES ('U001', 'Ravi', 'ravi@nitw.ac.in', '9876543210',
'student', 'ravi123');
```

```
INSERT INTO Users VALUES ('U002', 'Aditya S', 'aditya@nitw.ac.in', '9123456789',
'student', 'adi2025');
```

```
INSERT INTO Users VALUES ('U003', 'Sneha R', 'sneha@nitw.ac.in', '9988776655',
'student', 'sneha321');
```

```
INSERT INTO Users VALUES ('U004', 'Rahul M', 'rahul@nitw.ac.in', '9345612780',
'student', 'rahulpwd');
```

```
INSERT INTO Users VALUES ('U005', 'Admin Sir', 'admin@nitw.ac.in', '9000012345',
'admin', 'adminnitw');
```

```
INSERT INTO Users VALUES ('U006', 'Varsha T', 'varsha@nitw.ac.in', '9800765432',
'student', 'varsha456');
```

```
INSERT INTO Users VALUES ('U007', 'Siddharth V', 'sidv@nitw.ac.in', '9812345678',
'student', 'sid123');
```

```
INSERT INTO Users VALUES ('U008', 'Neha P', 'neha@nitw.ac.in', '9944556677',
'student', 'neha123');
```

```
INSERT INTO Users VALUES ('U009', 'Yashwanth R', 'yash@nitw.ac.in',  
'9955667788', 'student', 'yash098');
```

```
INSERT INTO Users VALUES ('U010', 'Meghana L', 'meghana@nitw.ac.in',  
'9789012345', 'student', 'megha111');
```

```
INSERT INTO Users VALUES ('U011', 'Karan M', 'karan@nitw.ac.in', '9877000001',  
'student', 'karan321');
```

```
INSERT INTO Users VALUES ('U012', 'Deepika J', 'deepika@nitw.ac.in',  
'8899001122', 'student', 'deepi234');
```

```
INSERT INTO Users VALUES ('U013', 'Abhishek D', 'abhi@nitw.ac.in', '8877665544',  
'student', 'abhids');
```

```
INSERT INTO Users VALUES ('U014', 'Pooja K', 'pooja@nitw.ac.in', '8123456700',  
'student', 'pooj123');
```

```
INSERT INTO Users VALUES ('U015', 'Manoj S', 'manoj@nitw.ac.in', '9001234567',  
'student', 'manoj789');
```

```
INSERT INTO Users VALUES ('U016', 'Harsha V', 'harsha@nitw.ac.in',  
'7890654321', 'student', 'harsha987');
```

```
INSERT INTO Users VALUES ('U017', 'Divya B', 'divya@nitw.ac.in', '9012345678',  
'student', 'divyab12');
```

```
INSERT INTO Users VALUES ('U018', 'Tanmay G', 'tanmay@nitw.ac.in',  
'8765432109', 'student', 'tan987');
```

```
INSERT INTO Users VALUES ('U019', 'Lavanya T', 'lavanya@nitw.ac.in',  
'9654321098', 'student', 'lava998');
```

```
INSERT INTO Users VALUES ('U020', 'Ankit R', 'ankit@nitw.ac.in', '9786432109',  
'student', 'ankit222');
```

```
mysql> select * from users;
```

| user_id | name | email | phone | role | password |
|---------|-------------|--------------------|------------|---------|-----------|
| U001 | Ravi | ravi@nitw.ac.in | 9876543210 | student | ravi123 |
| U002 | Aditya S | aditya@nitw.ac.in | 9123456789 | student | adi2025 |
| U003 | Sneha R | sneha@nitw.ac.in | 9988776655 | student | sneha321 |
| U004 | Rahul M | rahul@nitw.ac.in | 9345612780 | student | rahulpwd |
| U005 | Admin Sir | admin@nitw.ac.in | 9000012345 | admin | adminnitw |
| U006 | Varsha T | varsha@nitw.ac.in | 9800765432 | student | varsha456 |
| U007 | Siddharth V | sidv@nitw.ac.in | 9812345678 | student | sid123 |
| U008 | Neha P | neha@nitw.ac.in | 9944556677 | student | neha123 |
| U009 | Yashwanth R | yash@nitw.ac.in | 9955667788 | student | yash098 |
| U010 | Meghana L | meghana@nitw.ac.in | 9789012345 | student | megha111 |
| U011 | Karan M | karan@nitw.ac.in | 9877000001 | student | karan321 |
| U012 | Deepika J | deepika@nitw.ac.in | 8899001122 | student | deepi234 |
| U013 | Abhishek D | abhi@nitw.ac.in | 8877665544 | student | abhids |
| U014 | Pooja K | pooja@nitw.ac.in | 8123456700 | student | pooj123 |
| U015 | Manoj S | manoj@nitw.ac.in | 9001234567 | student | manoj789 |
| U016 | Harsha V | harsha@nitw.ac.in | 7890654321 | student | harsha987 |
| U017 | Divya B | divya@nitw.ac.in | 9012345678 | student | divyab12 |
| U018 | Tanmay G | tanmay@nitw.ac.in | 8765432109 | student | tan987 |
| U019 | Lavanya T | lavanya@nitw.ac.in | 9654321098 | student | lava998 |
| U020 | Ankit R | ankit@nitw.ac.in | 9786432109 | student | ankit222 |

```
20 rows in set (0.00 sec)
```

2.Item Category table

```
INSERT INTO Item_Category VALUES (1, 'Electronics');
```

```
INSERT INTO Item_Category VALUES (2, 'Books');
```

```
INSERT INTO Item_Category VALUES (3, 'Clothing');
```

```
INSERT INTO Item_Category VALUES (4, 'Accessories');
```

```
INSERT INTO Item_Category VALUES (5, 'Documents');
```

```
INSERT INTO Item_Category VALUES (6, 'Stationery');
```

```
mysql> select * from item_category;
```

| category_id | category_name |
|-------------|---------------|
| 1 | Electronics |
| 2 | Books |
| 3 | Clothing |
| 4 | Accessories |
| 5 | Documents |
| 6 | Stationery |

```
6 rows in set (0.00 sec)
```


3. Lost items table

```
INSERT INTO Lost_Items VALUES ('L001', 'U001', 'Scientific Calculator', 1, 'CASIO fx-991EX', 'Seminar hall 2nd Floor', '2025-07-01', 'open');
```

```
INSERT INTO Lost_Items VALUES ('L002', 'U002', 'Discrete Math Book', 2, 'Blue cover with name tag', 'Library Reading Hall', '2025-06-28', 'open');
```

```
INSERT INTO Lost_Items VALUES ('L003', 'U003', 'Wallet', 4, 'Black wallet', 'Food Street', '2025-07-02', 'claimed');
```

```
INSERT INTO Lost_Items VALUES ('L004', 'U006', 'Sweatshirt', 3, 'Grey hoodie, size M', 'LH Ground Floor', '2025-07-03', 'open');
```

```
INSERT INTO Lost_Items VALUES ('L005', 'U007', 'Notebook', 6, 'Signals and Systems notes', 'ECE Dept 1st Floor', '2025-06-30', 'open');
```

```
INSERT INTO Lost_Items VALUES ('L006', 'U008', 'Aadhar Card', 5, 'Original Aadhar card', 'SBI ATM', '2025-07-01', 'open');
```

```
INSERT INTO Lost_Items VALUES ('L007', 'U009', 'Bluetooth Earbuds', 1, 'Boat Airdopes 181', 'Data Center Main Lab', '2025-07-04', 'open');
```

```
INSERT INTO Lost_Items VALUES ('L008', 'U011', 'Python Textbook', 2, 'Red cover, Python Basics', 'Library reading room', '2025-06-29', 'resolved');
```

```
INSERT INTO Lost_Items VALUES ('L009', 'U013', 'Water Bottle', 3, 'Blue Milton 1L', 'Gym Area', '2025-07-05', 'open');
```

```
INSERT INTO Lost_Items VALUES ('L010', 'U014', 'Wrist watch', 4, 'Fastrack watch with brown strap', 'Near SAC', '2025-07-01', 'open');
```

```
mysql> select * from lost_items;
```

| lost_id | user_id | item_name | category_id | description | location_lost | date_lost | status |
|---------|---------|-----------------------|-------------|---------------------------------|------------------------|------------|----------|
| L001 | U001 | Scientific Calculator | 1 | CASIO fx-991EX | Seminar hall 2nd Floor | 2025-07-01 | open |
| L002 | U002 | Discrete Math Book | 2 | Blue cover with name tag | Library Reading Hall | 2025-06-28 | open |
| L003 | U003 | Wallet | 4 | Black wallet | Food Street | 2025-07-02 | claimed |
| L004 | U006 | Sweatshirt | 3 | Grey hoodie, size M | LH Ground Floor | 2025-07-03 | open |
| L005 | U007 | Notebook | 6 | Signals and Systems notes | ECE Dept 1st Floor | 2025-06-30 | open |
| L006 | U008 | Aadhar Card | 5 | Original Aadhar card | SBI ATM | 2025-07-01 | open |
| L007 | U009 | Bluetooth Earbuds | 1 | Boat Airdopes 181 | Data Center Main Lab | 2025-07-04 | open |
| L008 | U011 | Python Textbook | 2 | Red cover, Python Basics | Library reading room | 2025-06-29 | resolved |
| L009 | U013 | Water Bottle | 3 | Blue Milton 1L | Gym Area | 2025-07-05 | open |
| L010 | U014 | Wrist watch | 4 | Fastrack watch with brown strap | Near SAC | 2025-07-01 | open |

```
10 rows in set (0.00 sec)
```

4. Found Items table

```
INSERT INTO Found_Items VALUES ('F001', 'U004', 'Scientific Calculator', 1, 'CASIO fx-991EX', 'Seminar hall 2nd Floor', '2025-07-01', 'matched');
```

```
INSERT INTO Found_Items VALUES ('F002', 'U005', 'Wallet', 4, 'Black wallet with cash', 'Food Street', '2025-07-02', 'matched');
```

```
INSERT INTO Found_Items VALUES ('F003', 'U012', 'Bluetooth Earbuds', 1, 'Boat Airdopes', 'Data Center Main Lab', '2025-07-04', 'pending');
```

```
INSERT INTO Found_Items VALUES ('F004', 'U010', 'Notebook', 6, 'Signals notes - ECE Dept', 'ECE Dept 1st Floor', '2025-06-30', 'handed');
```

```
INSERT INTO Found_Items VALUES ('F005', 'U020', 'Wrist watch', 4, 'Fastrack brown strap', 'SAC Bench', '2025-07-02', 'pending');
```

```
mysql> select * from found_items;
```

| found_id | user_id | item_name | category_id | description | location_found | date_found | status |
|----------|---------|-----------------------|-------------|--------------------------|------------------------|------------|---------|
| F001 | U004 | Scientific Calculator | 1 | CASIO fx-991EX | Seminar hall 2nd Floor | 2025-07-01 | matched |
| F002 | U005 | Wallet | 4 | Black wallet with cash | Food Street | 2025-07-02 | matched |
| F003 | U012 | Bluetooth Earbuds | 1 | Boat Airdopes | Data Center Main Lab | 2025-07-04 | pending |
| F004 | U010 | Notebook | 6 | Signals notes - ECE Dept | ECE Dept 1st Floor | 2025-06-30 | handed |
| F005 | U020 | Wrist watch | 4 | Fastrack brown strap | SAC Bench | 2025-07-02 | pending |

```
5 rows in set (0.00 sec)
```

5. Claims table

```
INSERT INTO Claims VALUES ('C001', 'L001', 'F001', 'U001', '2025-07-02', 'approved');
```

```
INSERT INTO Claims VALUES ('C002', 'L003', 'F002', 'U003', '2025-07-03', 'approved');
```

```
INSERT INTO Claims VALUES ('C003', 'L005', 'F004', 'U007', '2025-07-01', 'approved');
```

```
INSERT INTO Claims VALUES ('C004', 'L007', 'F003', 'U009', '2025-07-04', 'pending');
```

```
INSERT INTO Claims VALUES ('C005', 'L010', 'F005', 'U014', '2025-07-05', 'pending');
```

```
mysql> select * from claims;
```

| claim_id | lost_id | found_id | claimant_id | claim_date | status |
|----------|---------|----------|-------------|------------|----------|
| C001 | L001 | F001 | U001 | 2025-07-02 | approved |
| C002 | L003 | F002 | U003 | 2025-07-03 | approved |
| C003 | L005 | F004 | U007 | 2025-07-01 | approved |
| C004 | L007 | F003 | U009 | 2025-07-04 | pending |
| C005 | L010 | F005 | U014 | 2025-07-05 | pending |

```
5 rows in set (0.00 sec)
```

6. Admin Verification table

```
INSERT INTO Admin_Verification VALUES ('V001', 'C001', 'U005', '2025-07-02', 'approved', 'matched');
```

```
INSERT INTO Admin_Verification VALUES ('V002', 'C002', 'U005', '2025-07-03', 'approved', 'verified');
```

```
INSERT INTO Admin_Verification VALUES ('V003', 'C003', 'U005', '2025-07-01', 'approved', 'returned');
```

```
INSERT INTO Admin_Verification VALUES ('V004', 'C004', 'U005', '2025-07-04', 'pending', 'confirm serial');
```

```
INSERT INTO Admin_Verification VALUES ('V005', 'C005', 'U005', '2025-07-06', 'pending', 'awaiting ID');
```

```
mysql> select * from admin_verification;
```

| verification_id | claim_id | admin_id | decision_date | decision | notes |
|-----------------|----------|----------|---------------|----------|----------------|
| V001 | C001 | U005 | 2025-07-02 | approved | matched |
| V002 | C002 | U005 | 2025-07-03 | approved | verified |
| V003 | C003 | U005 | 2025-07-01 | approved | returned |
| V004 | C004 | U005 | 2025-07-04 | pending | confirm serial |
| V005 | C005 | U005 | 2025-07-06 | pending | awaiting ID |

```
5 rows in set (0.00 sec)
```

QUERIES

1.All currently open lost items

```
mysql> SELECT lost_id, item_name, location_lost, date_lost
-> FROM Lost_Items
-> WHERE status = 'open';
```

| lost_id | item_name | location_lost | date_lost |
|---------|-----------------------|------------------------|------------|
| L001 | Scientific Calculator | Seminar hall 2nd Floor | 2025-07-01 |
| L002 | Discrete Math Book | Library Reading Hall | 2025-06-28 |
| L004 | Sweatshirt | LH Ground Floor | 2025-07-03 |
| L005 | Notebook | ECE Dept 1st Floor | 2025-06-30 |
| L006 | Aadhar Card | SBI ATM | 2025-07-01 |
| L007 | Bluetooth Earbuds | Data Center Main Lab | 2025-07-04 |
| L009 | Water Bottle | Gym Area | 2025-07-05 |
| L010 | Wrist watch | Near SAC | 2025-07-01 |

8 rows in set (0.00 sec)

2.Found items that are still pending

```
mysql> SELECT found_id, item_name, location_found, status
-> FROM Found_Items
-> WHERE status = 'pending';
```

| found_id | item_name | location_found | status |
|----------|-------------------|----------------------|---------|
| F003 | Bluetooth Earbuds | Data Center Main Lab | pending |
| F005 | Wrist watch | SAC Bench | pending |

2 rows in set (0.00 sec)

3.Count of lost items per category

```
mysql> SELECT ic.category_name, COUNT(*) AS lost_count
-> FROM Lost_Items li
-> JOIN Item_Category ic ON li.category_id = ic.category_id
-> GROUP BY ic.category_name;
```

| category_name | lost_count |
|---------------|------------|
| Accessories | 2 |
| Books | 2 |
| Clothing | 2 |
| Documents | 1 |
| Electronics | 2 |
| Stationery | 1 |

6 rows in set (0.02 sec)

4.All lost/found items involving "Bluetooth Earbuds"

```
mysql> SELECT 'Lost' AS type, lost_id AS item_id, user_id, item_name, description
-> FROM Lost_Items
-> WHERE item_name LIKE '%Bluetooth Earbuds%'
-> UNION
-> SELECT 'Found', found_id, user_id, item_name, description
-> FROM Found_Items
-> WHERE item_name LIKE '%Bluetooth Earbuds%';
+-----+-----+-----+-----+-----+
| type | item_id | user_id | item_name          | description          |
+-----+-----+-----+-----+-----+
| Lost | L007    | U009    | Bluetooth Earbuds | Boat Airdopes 181 |
+-----+-----+-----+-----+-----+
1 row in set (0.01 sec)
```

5.Display all lost items in the 'Accessories' category

```
mysql> SELECT item_name
-> FROM Lost_Items
-> WHERE category_id = (
->     SELECT category_id
->     FROM Item_Category
->     WHERE category_name = 'Accessories'
-> );
+-----+
| item_name |
+-----+
| Wallet    |
| Wrist watch |
+-----+
2 rows in set (0.01 sec)
```

6.Display the items lost by user 'Ravi'

```
mysql> SELECT item_name
-> FROM Lost_Items
-> WHERE user_id = (
->     SELECT user_id
->     FROM Users
->     WHERE name = 'Ravi'
-> );
+-----+
| item_name          |
+-----+
| Scientific Calculator |
+-----+
1 row in set (0.00 sec)
```

7.Display names of users who found items

```
mysql> SELECT name
-> FROM Users
-> WHERE user_id IN (SELECT user_id FROM Found_Items);
```

| name |
|-------------|
| Ravi |
| Aditya S |
| Sneha R |
| Rahul M |
| Admin Sir |
| Varsha T |
| Siddharth V |
| Neha P |
| Yashwanth R |
| Meghana L |
| Karan M |
| Deepika J |
| Abhishek D |
| Pooja K |
| Manoj S |
| Harsha V |
| Divya B |
| Tanmay G |
| Lavanya T |
| Ankit R |

```
20 rows in set (0.00 sec)
```

8.Display all user names who have raised a claim

```
mysql> SELECT DISTINCT name
-> FROM Users
-> WHERE user_id IN (
->     SELECT claimant_id
->     FROM Claims
-> );
```

| name |
|-------------|
| Ravi |
| Sneha R |
| Siddharth V |
| Yashwanth R |
| Pooja K |

```
5 rows in set (0.00 sec)
```

