

## 1. FireStation Table

Existing FD:

1. **Station ID** → **Name, Location, Contact Number, Total Staff, Total Vehicles** ✓

Possible Practical FDs:

- **Location** → **Station ID, Name, Contact Number** (*Each location has only one station*)
  - **(Station ID, Total Staff)** → **Total Vehicles** (*More staff may mean more vehicles*)
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## 2. Vehicle Table

Existing FD:

1. **Vehicle ID** → **Type, Model No, Status, Water Capacity, Station ID, Last Maintenance Date** ✓

Possible Practical FDs:

- **(Type, Model No)** → **Water Capacity** (*Each model has a fixed water capacity*)
  - **Vehicle ID** → **Status** (*Each vehicle has only one status at a time: Available, In Use, Under Maintenance*)
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## 3. Supplier Table

Existing FD:

1. **Supplier ID** → **Name, Contact, Email, Address, Item Provided** ✓

Possible Practical FDs:

- **(Name, Contact)** → **Supplier ID** (*Supplier Name and Contact uniquely identify a supplier*)
  - **Supplier ID** → **Address** (*A supplier has a fixed address*)
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## 4. Inventory Table

Existing FD:

1. **Inventory ID** → **Item Name, Quantity, Station ID, Supplier ID, Last Updated** ✓

Possible Practical FDs:

- **(Item Name, Supplier ID)** → **Inventory ID** (*A specific item from a supplier should have a unique inventory ID*)
- **(Station ID, Item Name)** → **Quantity** (*Each station has a specific quantity of each item*)

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## 5. Staff Table

### Existing FD:

1. **Staff ID** → **Name, Designation, Contact, Email, Station ID, Shift** ✓

### Possible Practical FDs:

- **(Name, Contact)** → **Staff ID** *(Each staff member has a unique contact number)*
  - **Staff ID** → **Designation** *(A staff member has only one designation)*
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## 6. User Table

### Existing FD:

1. **User ID** → **Name, Username, Password, Contact, Email, Address** ✓
2. **Username** → **User ID** ✓ *(Assuming usernames are unique)*

### Possible Practical FDs:

- **(Email, Contact)** → **User ID** *(Each user has a unique email and contact number)*
  - **User ID** → **Address** *(Each user has a single registered address)*
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## 7. Admin Table

### Existing FD:

1. **Admin ID** → **Name, Username, Password, Contact, Role** ✓
2. **Username** → **Admin ID** ✓

### Possible Practical FDs:

- **(Name, Contact)** → **Admin ID** *(Each admin has a unique contact number)*
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## 8. Report Table

### Existing FD:

1. **Report ID** → **Street Address, City, State, Pincode, Description, Report Date Time, Severity Level, User ID, Action Taken, Action Date Time, Admin ID, Assigned Vehicle, Assigned Staff** ✓

### Possible Practical FDs:

- **(Street Address, Report Date Time)** → **Report ID** *(A report is unique for a given address and time)*

- **(User ID, Report Date Time) → Severity Level** (*Users typically report severity based on their experience*)
  - **(Admin ID, Report ID) → Action Taken, Action Date Time** (*Each admin is responsible for taking action on reports*)
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## 9. EquipmentUsage Table

Existing FD:

1. **Usage ID → Inventory ID, Used Quantity, Date Used, Purpose, Staff ID** ✓

Possible Practical FDs:

- **(Inventory ID, Date Used) → Used Quantity** (*The same inventory item has a recorded usage on a given date*)
  - **(Staff ID, Date Used) → Purpose** (*A staff member uses equipment for a specific purpose on a given day*)
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## 10. Maintenance Table

Existing FD:

1. **Maintenance ID → Vehicle ID, Maintenance Type, Date Performed, Cost, Performed By** ✓

Possible Practical FDs:

- **(Vehicle ID, Date Performed) → Maintenance Type, Cost, Performed By** (*A vehicle can have only one maintenance record per day*)
  - **(Vehicle ID, Maintenance Type) → Cost** (*A specific type of maintenance has a fixed cost*)
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## 11. FuelLog Table

Existing FD:

1. **Fuel ID → Vehicle ID, Date, Fuel Amount, Cost** ✓

Possible Practical FDs:

- **(Vehicle ID, Date) → Fuel Amount, Cost** (*Each vehicle has only one fuel entry per date*)
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## Summary

Here are the **new practical FDs** that were added:

- ✓ **FireStation: Location → Station ID, Name, Contact Number**
- ✓ **Vehicle: (Type, Model No) → Water Capacity**
- ✓ **Supplier: (Name, Contact) → Supplier ID**
- ✓ **Inventory: (Station ID, Item Name) → Quantity**
- ✓ **Staff: (Name, Contact) → Staff ID**
- ✓ **User: (Email, Contact) → User ID**
- ✓ **Report: (User ID, Report Date Time) → Severity Level**
- ✓ **EquipmentUsage: (Staff ID, Date Used) → Purpose**
- ✓ **Maintenance: (Vehicle ID, Date Performed) → Maintenance Type, Cost**
- ✓ **FuelLog: (Vehicle ID, Date) → Fuel Amount, Cost**