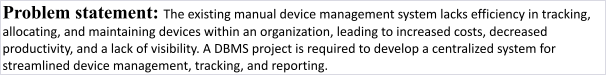
**Group - 1**

**Project Report**

**Project name: Device Management**

**BY ADITY SHARMA**



**Tables created:** DeviceCategory, Device, User, SupportRequest, SupportStaff, PriorityType, Histo,SkillSet and Solution.

1. DeviceCategory: Stores categories or types of devices, such as laptops, mobile phones, printers, etc.
2. Device: Contains information about individual devices, including serial number, specifications, current status, and assigned user.
3. User: Stores details about users or employees who are assigned devices, including their name, contact information, and department.
4. SupportRequest: Tracks support requests made by users for device-related issues, including details like request ID, device ID, and priority.
5. SupportStaff: Contains information about support staff members responsible for resolving device issues, including their name, contact details, and skill set.
6. PriorityType: Stores different priority levels for support requests, such as low, medium, and high.
7. Histo: Stores the history of support requests, including details like request ID, device ID, support staff assigned, and solution provided.
8. SkillSet: Stores different skill sets or expertise areas possessed by support staff members.
9. Solution: Contains information about solutions provided for support requests, including details like request ID, solution description, and resolution status.

**Primary keys:** category\_id,

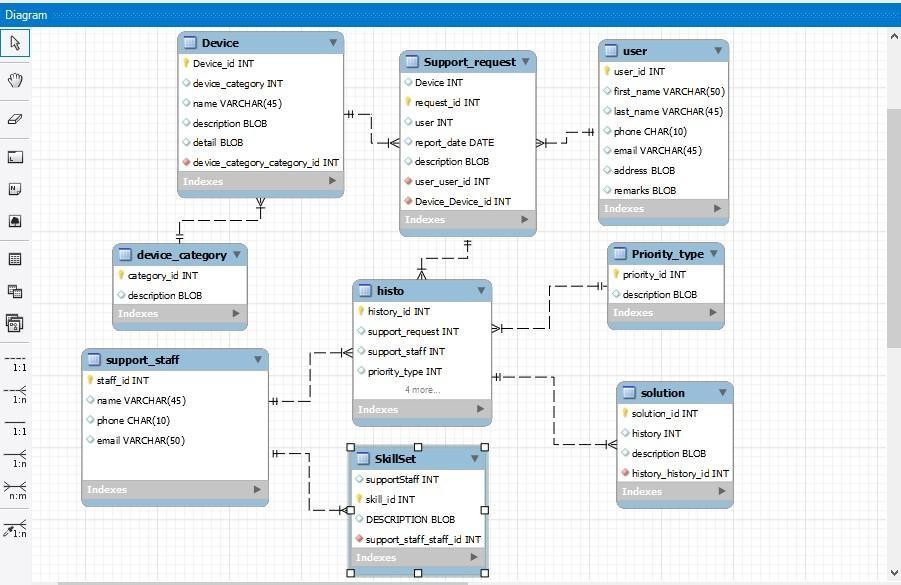
device\_id,user\_id,request\_id,staff\_id,priority\_id,history\_id,skill\_id,solution\_id

**Foreign keys:** category\_id,device\_id,user\_id,priority\_id,staff\_id,request\_id,history\_id

**Relationship between entities:**

* The device category entity and device entity have a one to many relationship.
* The device entity and support request entity have a one to many relationship.
* The user entity and support request entity have a one to many relationship.
* Priority type and histo entity has one to many relationship .
* Support request and skill set entities have one to many relationship. ● Histo and solution entities have one to many relationship.

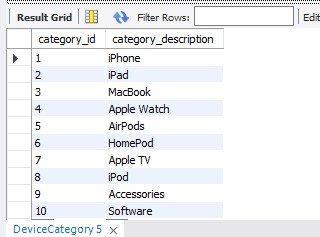
**Database Management System used:** MySQL **Data flow diagram:**

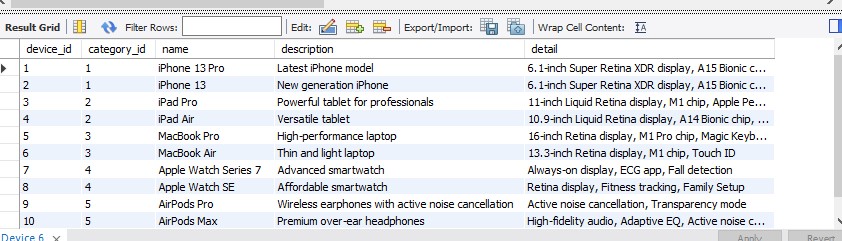


**Performing queries on the database:**

1. **Select Query**

select\*from DeviceCategory; select \* from Device;

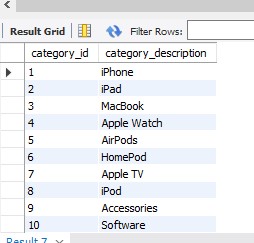




1. **Group By:**

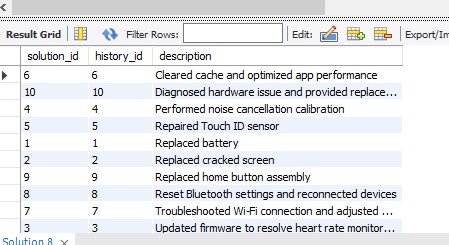
select(category\_id),category\_description

FROM DeviceCategory GROUP BY category\_id;



**3.Order By:**

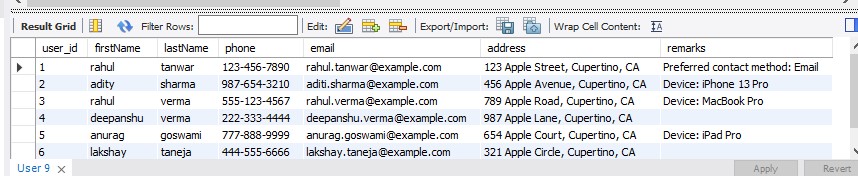
select \* FROM Solution ORDER BY description;



**4.Update Query:**

UPDATE User

SET firstName='adity' where user\_id='2'; select \* from User;

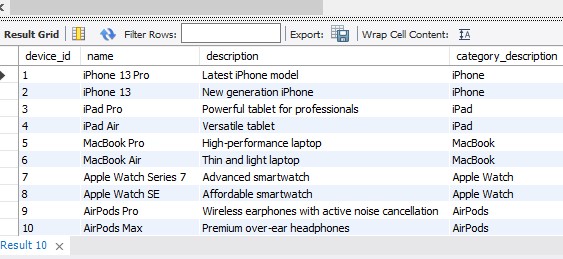


**5.Join Query:**

SELECT d.device\_id, d.name, d.description, dc.category\_description

FROM Device d

JOIN DeviceCategory dc ON d.category\_id = dc.category\_id;

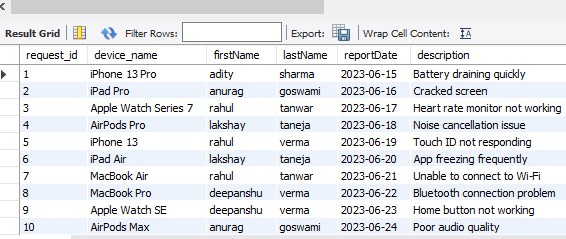


SELECT sr.request\_id, d.name AS device\_name, u.firstName, u.lastName, sr.reportDate, sr.description

FROM SupportRequest sr

JOIN Device d ON sr.device\_id = d.device\_id

JOIN User u ON sr.user\_id = u.user\_id;



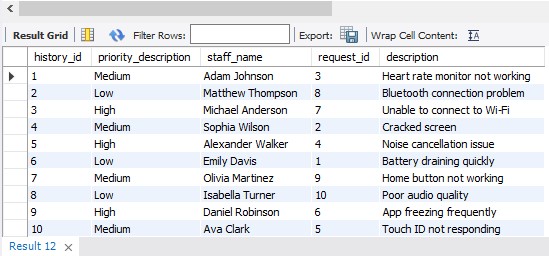
SELECT h.history\_id, p.description AS priority\_description, ss.name AS staff\_name, sr.request\_id, sr.description

FROM Histo h

JOIN PriorityType p ON h.priority\_id = p.priority\_id

JOIN SupportStaff ss ON h.staff\_id = ss.staff\_id

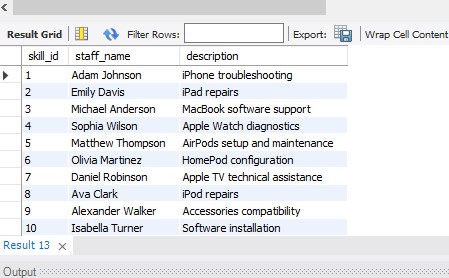
JOIN SupportRequest sr ON h.request\_id = sr.request\_id;



SELECT s.skill\_id, ss.name AS staff\_name, s.description

FROM SkillSet s

JOIN SupportStaff ss ON s.staff\_id = ss.staff\_id;



SELECT s.solution\_id, h.history\_id, sr.request\_id, s.description FROM Solutions

JOIN Histo h ON s.history\_id = h.history\_id

JOIN SupportRequest sr ON h.request\_id = sr.request\_id;

