Database Project - Salon Desk

Team Members:

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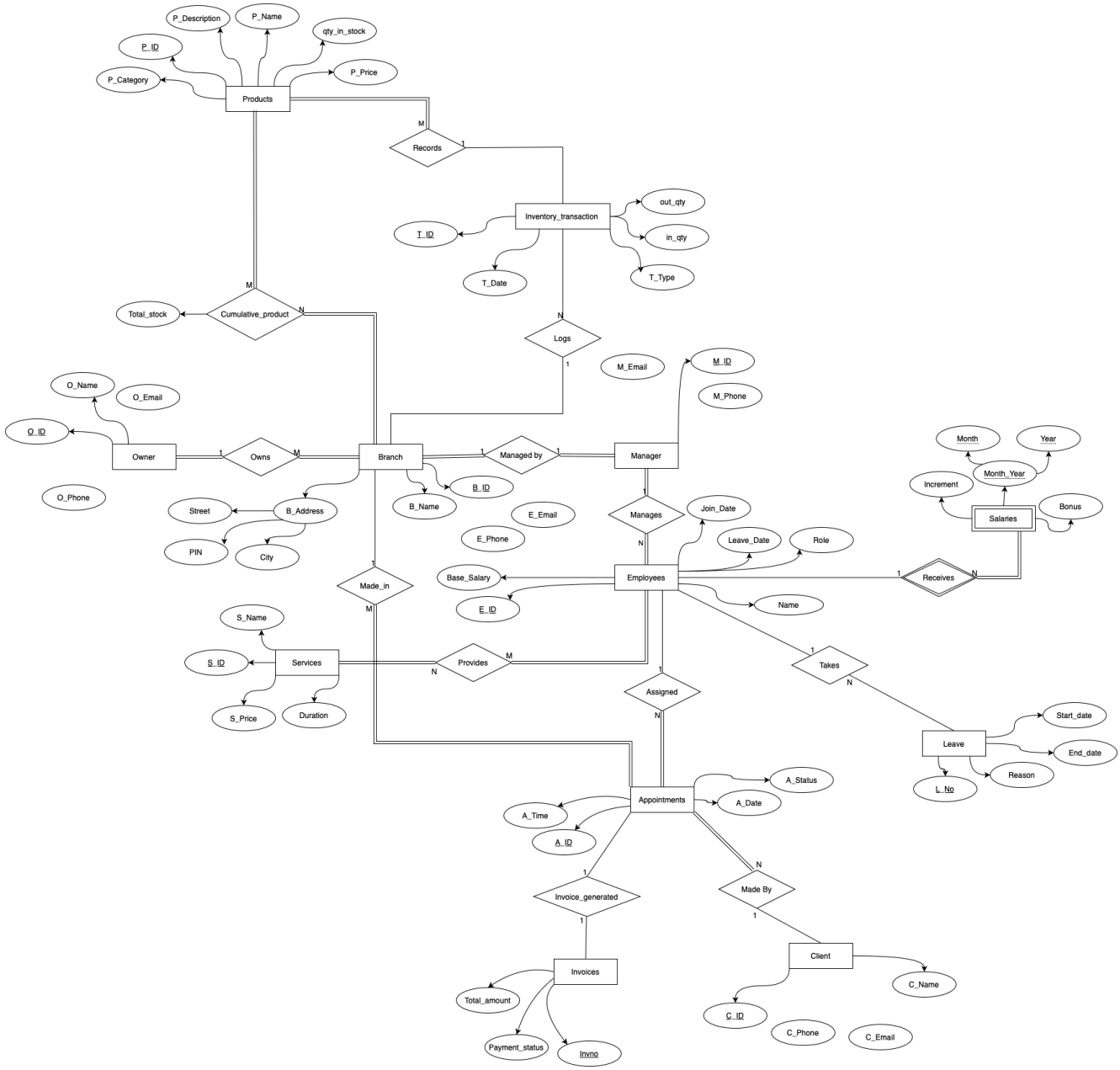
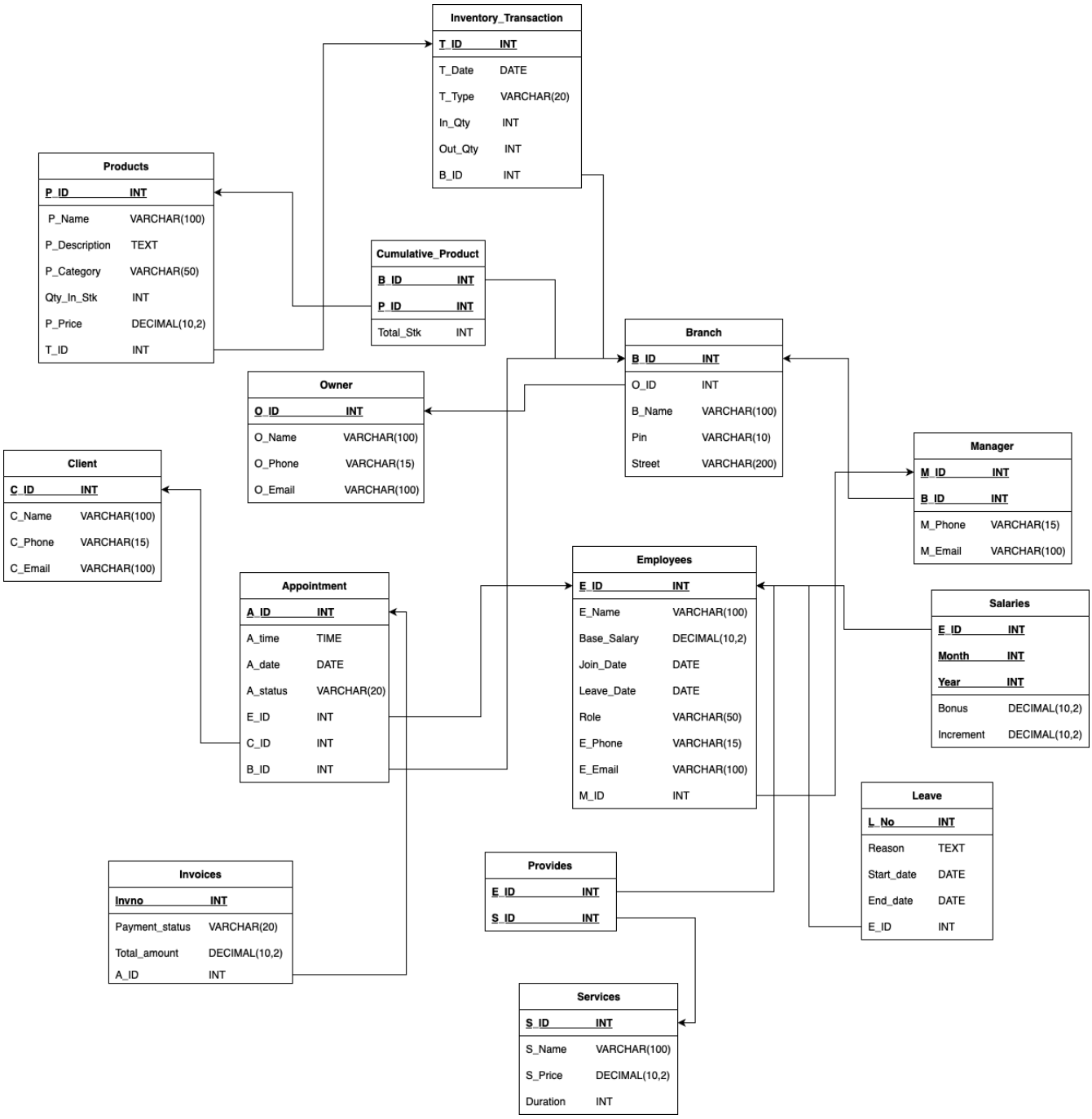
ER Diagram:


P_Description
P_Name
qty_in_stock
P_ID
P_Price
P_Category
Products
M
Records
1
Inventory_transaction
out_qty
T_ID
in_qty
T_Date
T_Type
M
Total_stock
Cumulative_product
N
N
Logs
1
M_Email
M_ID
M_Phone
O_Name
O_Email
O_ID
Owner
1
Owns
M
Branch
1
Managed by
1
Manager
O_Phone
Street
B_Address
B_ID
B_Name
E_Email
Manages
Join_Date
PIN
City
E_Phone
N
Leave_Date
Role
Month
Year
Month_Year
Increment
Salaries
Bonus
1
Made_in
M
Base_Salary
Employees
1
Receives
N
E_ID
Name
S_Name
S_ID
Services
Provides
M
N
1
Takes
N
Assigned
N
Start_date
Leave
End_date
Reason
L_No
S_Price
Duration
A_Status
Appointments
A_Date
A_Time
A_ID
N
1
Invoice_generated
Made By
1
Client
C_Name
Invoices
Total_amount
C_ID
C_Phone
C_Email
Payment_status
Invno

Relational Schema:



Normalization Proofs:

Products Table

- FDs: {P_ID → P_Name, P_Description, P_Category, Qty_in_stk, P_Price, T_ID}
- Primary Key: P_ID

Since P_ID is the primary key and is a superkey, this relation is in BCNF.

Inventory_Transaction Table

- FDs: {T_ID → T_Date, T_Type, in_qty, out_qty, B_ID}
- Primary Key: T_ID

Since T_ID is the primary key and is a superkey, this relation is in BCNF.

Cumulative_Product Table

- FDs: {{B_ID, P_ID} → Total_Stk}
- Primary Key: {B_ID, P_ID}

Since {B_ID, P_ID} is the primary key and is a superkey, this relation is in BCNF.

Branch Table

- FDs: {B_ID → O_ID, B_Name, Pin, Street}
- Primary Key: B_ID

Since B_ID is the primary key and superkey, this relation is in BCNF.

Owner Table

- FDs: {O_Id → O_Name, O_Phone, O_Email}
- Primary Key: O_Id

Since O_Id is the primary key and is a superkey, this relation is in BCNF.

Manager Table

- FDs:{M_ID → B_ID, M_Phone, M_Email}
- Primary Key: M_ID

Since M_ID is the primary key and is a superkey, this relation is in BCNF.

Client Table

- FDs:{C_ID → C_Name, C_Phone, C_Email}
- Primary Key: C_ID

Since C_ID is the primary key and superkey, this relation is in BCNF.

Appointment Table

- FDs: {A_Id → A_time, A_date, A_status, E_ID, C_ID, B_ID}
- Primary Key: A_Id

Since all A_Id is the primary key and is a superkey, this relation is in BCNF.

Employees Table

- FDs: {E_ID → E_Name, Base_Salary, Join_Date, Leave_Date, Role, E_Phone, E_Email, M_ID}
- Primary Key: E_ID

Since E_ID is the primary key and is a superkey, this relation is in BCNF.

Salaries Table

- FDs: {{E_ID, Year, Month} → Bonus, Increment}
- Primary Key: {E_ID, Year, Month}

Since {E_ID, Year, Month} is the primary key and is a superkey, this relation is in BCNF.

Leave Table

- FDs: {L_No → Reason, Start_date, End_date, E_ID}
- Primary Key: L_No

Since L_No is the primary key and is a superkey, this relation is in BCNF.

Provides Table

- No non-trivial FDs within the table itself.
- Primary Key: {E_ID, S_ID}

Since there are no non-trivial FDs, this relation is in BCNF.

Services Table

- FDs: {S_ID → S_Name, S_Price, Duration}
- Primary Key: S_ID

Since S_ID is the primary key and is a superkey, this relation is in BCNF.

Invoices Table

- FDs: {Invno → Payment_status, Total_amount, A_ID}
- Primary Key: Invno

Since Invno is the primary key and is a superkey, this relation is in BCNF.