**DMIT-1508-1222-O03 Lab 1**

**Robbie’s Rentals Inc**

**Staff View**

**Initial Table, ONF**

**Staff Details**

BranchNumber(PK),SupervisorNumber, BranchAddress, ManagerStart, ManagerBonus,Phone, StaffNumber, StaffName, StaffStartDate, HourlyRate, Salary, PID, Position

**1NF**

**Atomize! Pull out repeat offenders.**

**Staff Details**

BranchNumber(PK),SupervisorNumber, BranchAddress, ManagerStart, ManagerBonus, Phone **(** StaffNumber, StaffName, StaffStartDate, HourlyRate, Salary, PID, Position**)**

**Branch Details**

BranchNumber(PK), SupervisorNumber, BranchAddress, BranchCity, BranchProvince BranchPostalCode, ManagerStart, ManagerBonus, Phone

**Staff Details**

StaffNumber(PK), FirstName, LastName, StaffStartDate, HourlyRate, Salary, PID, Position, BranchNumber(FK),

**2NF**

**Remove Partial Dependencies!**

Since there are no composite keys, we don’t need to remove partial dependencies.

**3NF**

**Find hidden tables.**

**It looks as though we could pull out a supervisor table if there were other attributes tied to the supervisor, but there are none. So, stick with 2 final tables;**

**Branch Details**

BranchNumber(PK), SupervisorNumber, BranchAddress, BranchCity, BranchProvince BranchPostalCode, ManagerStart, ManagerBonus, Phone

**Staff Details**

StaffNumber(PK), FirstName, LastName, StaffStartDate, HourlyRate, Salary, PID, Position, BranchNumber(FK),

**Diagram

Description automatically generated**

**Rental View**

**Initial Table, ONF**

**Agreement Details**

AgreementNumber(PK) ClientNumber, FullName, ClientPhone, EquipmentNumber, EquipmentDescription, cCode, Condition, RentStartDate, RentEndDate, DaysRented, Price/Day, ExtendedPrice, GST, TotalForAgreement

**1NF**

**Atomize! Pull out repeat offenders.**

**Agreement Details.**

AgreementNumber(PK) ClientNumber, FirstName, LastName, ClientPhone, GSTTotal, TotalForAgreement

**Equipment Rentals**

EquipmentNumberPK AgreementNumber(PK) (FK) EquipmentDescription, cCode, Condition, RentStartDate, RentEndDate, DaysRented, Price/Day, ExtendedPrice, GST

**2NF**

**Remove Partial Dependencies!**

**Equipment Rentals**

EquipmentNumber(PK)(FK) AgreementNumber(PK) (FK) RentStartDate, RentEndDate, DaysRented, ExtendedPrice, GST

**Equipment**

EquipmentNumber(PK), EquipmentDescription, cCode, Condition, Price/Day

And not to forget the original table;

**Agreement Details**

AgreementNumber(PK) ClientNumber, FirstName, LastName, ClientPhone, GSTTotal, TotalForAgreement

**3NF**

**Find hidden tables.**

We were left with 3 tables after the last phase:

**Agreement Details**

AgreementNumber(PK) ClientNumber, FirstName, LastName, ClientPhone, GSTTotal, TotalForAgreement

**Equipment Rentals**

EquipmentNumber(PK)(FK) AgreementNumber(PK) (FK) RentStartDate, RentEndDate, DaysRented, ExtendedPrice, GST

**Equipment**

EquipmentNumber(PK), EquipmentDescription, cCode, Condition, Price/Day

Aha! There is a client table. **Here is our final four tables**:

**Clients**

ClientNumber(PK), FirstName, LastName, ClientPhone

**Agreement Details**

AgreementNumber(PK) ClientNumber(FK),GSTTotal, TotalForAgreement

**Equipment Rentals**

EquipmentNumber(PK)(FK) AgreementNumber(PK) (FK) RentStartDate, RentEndDate, DaysRented, ExtendedPrice, GST

**Equipment**

EquipmentNumber(PK), EquipmentDescription, cCode, Condition, Price/Day

**Diagram

Description automatically generated**

**Equipment History**

**Initial Table, ONF**

**Equipment History**

EquipmentNumber(PK), Description, PurchaseDate, PurchasePrice, SupplierID, SupplierName, PurchasedNew, ServiceID, ServiceDate, ServiceTypeID, ServiceDescription, StaffNumber, Comments

**1NF**

**Atomize! Pull out repeat offenders.**

**Equipment History**

EquipmentNumber(PK), Description, PurchaseDate, PurchasePrice, SupplierID, SupplierName, PurchasedNew,

**Service History**

ServiceID(PK) EquipmentNumber(FK)(PK), ServiceDate, ServiceTypeID, ServiceDescription, StaffNumber, Comments

**2NF**

**Remove Partial Dependencies!**

**Service History**

ServiceID(PK) EquipmentNumber(FK)(PK), ServiceDate, ServiceTypeID, ServiceDescription, StaffNumber, Comments

Upon further investigation, all of the attributes in our composite key can’t do without the composite key, or they will not be unique**.**

**3NF**

**Find hidden tables.**

We were left with 2 tables after the last phase:

**Equipment History**

EquipmentNumber(PK), Description, PurchaseDate, PurchasePrice, SupplierID, SupplierName, PurchasedNew,

**Service History**

ServiceID(PK) EquipmentNumber(FK)(PK), ServiceDate, ServiceTypeID, ServiceDescription, StaffNumber, Comments

I see a supplier table in there:

**Supplier Information**

SupplierID(PK), SupplierName

**Equipment History**

EquipmentNumber(PK), Description, PurchaseDate, PurchasePrice, SupplierID(FK), PurchasedNew,

**Service History**

ServiceID(PK) EquipmentNumber(FK)(PK), ServiceDate, ServiceTypeID, ServiceDescription, StaffNumber, Comments

Graphical user interface, diagram

Description automatically generated

**Merged ERD**

Diagram

Description automatically generated

Legend

|  |  |
| --- | --- |
| PK | Primary Key |
| FK | Foreign Key |
| **BOLD-type** | Primary or Foreign Key |