



# **Lloyds Banking Group**

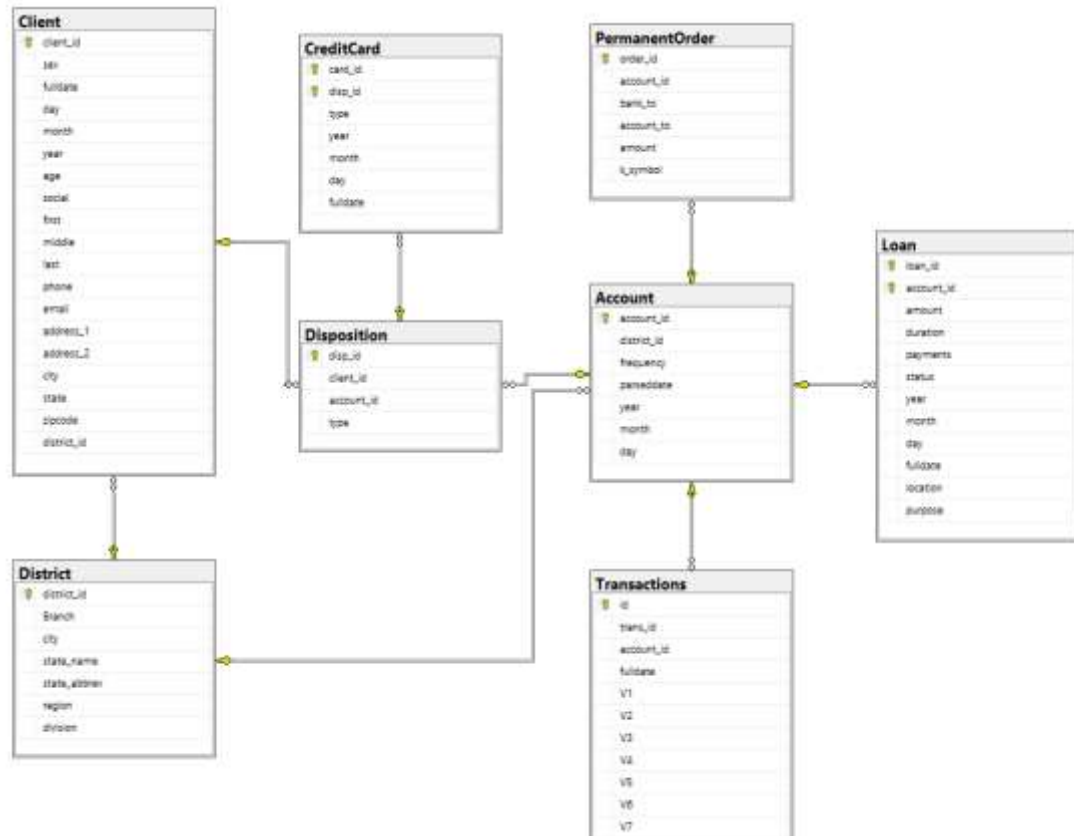
**Data Analyst Incubation**

## **CRM Sprint – Quay Database Technical Documentation**



# Quay Banking Database

## Logical Schema



## Primary Key Setting & Data Integration

```
ALTER TABLE Loan ADD CONSTRAINT PK_Loan PRIMARY KEY
(account_id);
```

```
ALTER TABLE PermanentOrder ADD CONSTRAINT PK_PermanentOrder
PRIMARY KEY (account_id);
```

```
ALTER TABLE Disposition ADD CONSTRAINT PK_Disposition
PRIMARY KEY (disp_id);
```

```
ALTER TABLE Client ADD CONSTRAINT PK_Client PRIMARY KEY
(client_id);
```

```
ALTER TABLE Transactions ADD CONSTRAINT PK_Transactions
PRIMARY KEY (account_id);
```

```
ALTER TABLE Account ADD CONSTRAINT PK_Account PRIMARY KEY
```



```
(account_id);

ALTER TABLE CreditCard ADD CONSTRAINT PK_CreditCard PRIMARY
KEY (disp_id);

-- Loan -> Account

ALTER TABLE Loan ADD CONSTRAINT FK_Loan_Account FOREIGN KEY
(account_id) REFERENCES Accounts (account_id);

-- PermanentOrder -> Account

ALTER TABLE [Permanant Order] ADD CONSTRAINT
FK_PermanentOrder_Accounts FOREIGN KEY (account_id)
REFERENCES Accounts (account_id);

-- Transactions -> Account

ALTER TABLE Transactions ADD CONSTRAINT
FK_Transactions_Accounts FOREIGN KEY (account_id)
REFERENCES Accounts (account_id);

-- Disposition -> Account

ALTER TABLE Disposition ADD CONSTRAINT
FK_Disposition_Accounts FOREIGN KEY (account_id) REFERENCES
Accounts (account_id);

-- Disposition -> Client

ALTER TABLE Disposition ADD CONSTRAINT
FK_Disposition_Client FOREIGN KEY (client_id) REFERENCES
Client (client_id);

-- CreditCard -> Disposition

ALTER TABLE CreditCard ADD CONSTRAINT
FK_CreditCard_Disposition FOREIGN KEY (disp_id) REFERENCES
Disposition (disp_id);
```



```
-- Account -> Demographic (Assuming there is a table named  
Demographic which relates to Account via district_id)
```

```
ALTER TABLE Accounts ADD CONSTRAINT FK_Account_Demographic  
FOREIGN KEY (district_id) REFERENCES District  
(district_id);
```

```
-- Client -> Demographic (Assuming the same as above for  
Demographic table)
```

```
ALTER TABLE Client ADD CONSTRAINT FK_Client_Demographic  
FOREIGN KEY (district_id) REFERENCES District  
(district_id);
```

## Method to evaluate the data to prepare for integration

Checking the Primary Key and Datatype compatibility across two tables:

```
SELECT COLUMN_NAME, DATA_TYPE, CHARACTER_MAXIMUM_LENGTH,  
COLLATION_NAME  
  
FROM INFORMATION_SCHEMA.COLUMNS  
  
WHERE TABLE_NAME = 'Client' AND COLUMN_NAME = 'district_id'  
  
UNION ALL  
  
SELECT COLUMN_NAME, DATA_TYPE, CHARACTER_MAXIMUM_LENGTH,  
COLLATION_NAME  
  
FROM INFORMATION_SCHEMA.COLUMNS  
  
WHERE TABLE_NAME = 'District' AND COLUMN_NAME =  
'district_id';
```

## Method to identify Orphaned Records:

```
SELECT DISTINCT r.district_id  
  
FROM Client r  
  
LEFT JOIN District d ON r.district_id = d.district_id
```

