**Analytical Case**

**Prelude:**

The given data samples are the applications for Business postpaid mobile accounts between 2009 and 2010(24 months). The Business team have requested for a risk analysis with monthly trends and also identify any areas of opportunities to drive incremental revenue while managing overall risk.

Below diagram, explains the process where a client applies for a TELUS mobile phone from a TELUS store; how TELUS risk system evaluates the risk of the client based on the client’s credit bureau score and how the clients get the phone activated

TELUS REP CREATES AN APPLICATION FOR THE CLIENT ON THE SYSTEM

CLIENT SUBMITS TWO PIECE OF ID’S TO TELUS REP

SELECTS THE PHONE AND THE PLAN TO BUY

CLIENT WALKS INTO A TELUS STORE

**\*** PLEASE REFER TO RISK LEVELS AND CREDIT CLASS TABLE BELOW

CREDIT CLASS **\*** = ‘K’

TELUS REP SUBMIT THE APPLICATION TO CREDIT BUREAU (EQUIFAX)

CREDIT BUREAU RETURNS CREDIT CLASS BASED ON CLIENT’S CREDIT SCORE

APPLICATION IS DECLINED (Client do not get a Phone due to bad credit)

**YES**

**NO**

APPLICATION IS APPROVED AND CLIENT’S NEW MOBILE PHONE IS ACTIVATIED

**\* RISK LEVELS:**

|  |  |  |
| --- | --- | --- |
| **RISK LEVEL** | **CREDIT CLASS** | **OFFER** |
| Low RISK – Good credit score | B | $0 phone on 2 yr contract **~** |
| Medium RISK – Medium credit score or No credit score | L | $0 phone on 2 yr contract **~** |
| HIGH RISK – Low credit score | X | Client pays for the phone device **&** |
| EXTREME RISK – Very Low credit Score | K | Declined (Do not Activate) |

* Please note higher the risk of the client the higher the rate of delinquency and downstream bad debt

**~** $0 phone on 2 yr contract –The client get subsidy on the phone for signing the contract and hence gets a free phone

**&** Client pays for the phone – Given the low or No credit score the client has to pay for the

phone and do not get any subsidy

**Data Definition:**

The application data is stored in the following two tables and column BAN is the unique key (Primary key) on both the tables.

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| * **Table 1 – CREDIT\_APPLICATIONS** |
| |  |  | | --- | --- | | **FIELD NAME** | **DESCRIPTION** | | BAN | Billing Account Number (Unique number for a client application) | | CREATE\_MONTH | The month the application got created | | START\_MONTH | The month the application got approved and client activated the phone | | CREATE\_WEEK | The week ending Saturday the application got created | | START\_WEEK | The week ending Saturday the application got approved and client activated the phone | | ACCOUNT\_DESC | Type of account (usually Business – Personal accounts) | | LINES REQUESTED | Numbers of mobile phones requested to be activated | | AGE\_GROUP | Age group of the client (18-30 or 31-40 or 41-50 or 50+) | | HCDP\_IND | Indicator for potential duplicate application by the same client | | HCDM\_IND | Indicator for potential mismatch on the data submitted by client | | HCDS\_IND | Indicator for the potential skip of duplicate application | | ADR\_PROVINCE | Clients province of residence (BC / AB / PQ / ON) | | CHANNEL\_TYPE | Channel type through which the client applied for the mobile service   1. Dealers – (TELUS Franchise stores) or 2. Corporate Stores – (TELUS owned stores) | |
|  |
| * **Table 2 – CREDIT\_RISK** |
| |  |  | | --- | --- | | **FIELD NAME** | **DESCRIPTION** | | BAN | Billing Account Number (Unique number for a client application) | | FIRST\_CREDIT\_DATE | The date client’s application was submitted to Credit Bureau | | FIRST\_CREDIT\_CLASS | Clients credit class returned by Credit Bureau based on clients credit score – Represents the risk level of the client | | SCORE\_CARD | The type of score card used to score the client EQFX – The client has a EQUIFAX SCORE ECBS – The client has no file with EQUIFAX and score is based on address provided during the application | | CREDIT\_SCORE | Client credit score | |

Please note all the applications in CREDIT\_APPLICATIONS table will have a unique record in CREDIT\_RISK table – both the tables have BAN as unique Indicator.

* **Table 3 – Target**

Targets for activation rate by month

**OTHER DATA:**

**1 Year Bad debt Rate by Credit Class:**

Bad debt rate is defined as the number of clients those will be delinquent (do not pay their bills) and end up as bad debt (WRITE OFF) with in the first year of activation.

|  |  |
| --- | --- |
| **CREDIT CLASS** | **1 YR BAD DEBT RATE** |
| B | 10 % |
| L | 35 % |
| X | 55 % |

**TASK:**

1. Analyze the data and create a presentation for the leadership team to talk about
   1. Activation rates (Hint: an application is activated when start\_month field is populated, rate = activations volume / applications volume )
   2. Activation trends & Deep dives
   3. Risk
   4. Recommendations or opportunities

Please be prepared to talk about the story behind these numbers.