

Credit Limit Increase Campaign

It is a typical credit card limit campaign. The bank sends 5400 offers to its customers and provide the opportunity to increase their current credit limit. When a customer receives the offer, he/she will call the bank. The customer service person will check the customer's status at the time of call, and decide whether to approve or decline the offer.

After dropping the campaign, the bank starts to monitor the campaign.

You have a few tables to complete the monitoring:

- **Base table:** includes the base population which the bank selects to provide this offer
- **Call_record table:** has the call records from these customers by day. The bank uses the call record to evaluate the response rate
- **Decision table:** has the final decision regarding each offer. AP=Approval; DL=Decline
- **Change_record table:** has the credit limit change record in the system
- **Letter table:** the bank needs to send approval letter or decline letter to customers accordingly. For example, if the customer speaks English, the bank must send letter in English. The correct letter code should be:
 - English approval letter = AE001
 - English Decline letter = RE001
 - French Approval letter = AE002
 - French Decline letter = RE002

Below are the monitoring requests from your manager:

1. Check how many people call in and respond every day
2. What is the overall approval rate and decline rate? The base population should be the total responders
3. for **approved accounts**, check whether their credit limit has been changed correctly based on the offer amount – write the query to output the customers with mismatched credit limit increase (*use derived table*)
 - 4.1 Check whether letter has been sent out for each approved or declined customers. Output the customers without receiving any letter. Usually, if the letter trigger date >= decision date, we consider that the letter has been sent out
 - 4.2 Check whether the letter is correctly sent out to each customer based on language and decision. Output the customers with wrong letter code
5. Create a final monitoring report which includes

- acct_num
- credit_limit
- offer_amount
- decision_status
- decision_date
- letter_trigger_date
- letter_code
- language
- credit_limit_after_ch
- mismatch_flag (1 means the credit limit is not correctly increased based on the offer, 0 means correct)
- missing_letter_flag (1 means there is missing letter)
- wrong_letter_flag (1 means the letter code is wrong)