**Project of Advanced SAS Course**

**Project for the Telecom Company**

Customer Distribution and Deactivation Analyses

**Objective:**

The attached data is the CRM data of a wireless company for 2 years. The wireless company would like to investigate customer distribution and business behaviours, and then gain an insightful understanding of the customers, and forecast the deactivation trends for the next 6 months.

**Data:**

Acctno: account number.

Actdt: account activation date

Deactdt: account deactivation date

DeactReason: reason for deactivation.

GoodCredit: Customer’s credit is good or not.

RatePlan: rate plan for the customer.

DealerType: dealer type.

Age: customer age.

Province: province.

Sales: the amount of sales to a customer.

**Analysis requests:**

**1.1**  Explore and describe the dataset briefly. For example, is the acctno unique? What is the number of accounts activated and deactivated? When are the earliest and latest activation/deactivation dates available? And so on….

**1.2**  What are the age and province distributions of active and deactivated customers?

**1.3** Segment the customers based on age, province, and sales amount:

Sales segment: < $100, $100---500, $500-$800, $800 and above.

Age segments: < 20, 21-40, 41-60, 60 and above.

**1.4.**Statistical Analysis:

1) Calculate the tenure in days for each account and give its simple statistics.

2) Calculate the number of accounts deactivated for each month.

3) Segment the account, first by account status “Active” and “Deactivated”, then by Tenure: < 30 days, 31---60 days, 61 days--- one year, over one year. Report the number of accounts of percent of all for each segment.

4) Test the general association between the tenure segments and GoodCredit RatePlan and DealerType.

5) Is there any association between the account status and the tenure segments?

Could you find a better tenure segmentation strategy that is more associated with the account status?

6) Does the Sales amount differ among different account statuses, GoodCredit, and customer age segments?