**Mini – Project of Advanced SAS Course**

**Part One: Small 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 the customer distribution and business behaviors, and

then gain insightful understanding about the customers, and to 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? And is there any association between Age and activation, how about between Province and activation

**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 “Good Credit”

“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?

You need to submit

1. A ppt similar to the template (proper for 10 min presentation) and for each finding a screenshot of code and its output must be attached (Do not use any other software/program, use only SAS)

You need to have at least one bivariate analysis of

* Cont. Vs. Cont.
* Cont. Vs. Cat.
* Cat Vs. Cat.

Plus any other interesting findings

1. A pdf for the report that you answer all the above 6 questions and their corresponding code and a screenshot of the output and graphs.
2. A SAS code.