Assignment 4
Test Plan Creation - Develop a Feature Model

Your task is to perform the tasks involved in developing a Feature Model – Analyze/Review Requirements, Create Feature Behavior Model (Activity Diagram), then Create Feature Decision Table, and finally "reduce" the Decision Table by identifying and "don't care" conditions and removing the resulting duplicates. Your submission will be the final reduced Decision Table.

The Process:

- The process you will analyze is a fictitious "Display Trip" functionality from a mobile application that tracks driving trips and then later displays them (with important statistics about the trip) on a map.

  - There are three factors we will concern ourselves with that can affect how the process will work:
    - The presence of the requested Trip Id in the back-end database
    - Whether the trip data reflects the full trip data, or only a partial trip (i.e., the tracking process was stopped mid-trip)
    - Whether the user has a free or paid account.

  - This process unfolds as follows:
    1) Trip ID selection
       a. If the trip id that the user enters is not present, an error message is displayed indicating that the trip cannot be found. Process done.
       b. If it *is* found, the process continues.
    2) Content of tracking data
       a. If the tracking data related to the specified Trip Id represents a *partial* trip (i.e., the tracking process was stopped mid-trip), the partial trip path is displayed on the app's map without trip statistics. Process done.
       b. If the tracking data related to the specified Trip Id represents a *full trip*, the full trip path is displayed on the app's map and statistics are displayed *according to the guidelines below.*
    3) User's account type
       a. If the user's account is a *free* account, limited trip statistics are displayed. Process done.
       b. If the user's account is a *paid* account, full trip statistics are displayed. Process done.

Assignment Requirements

A. You should first generate a decision tree reflecting the process described above. *(This does not need to be submitted).*

B. You should then develop your Aspects (i.e., the decisions) and Outcomes - and generate your initial (non-reduced) decision table. *(This does not need to be submitted).*

  - Note: Your Decision Table must include (but is not limited to) the following 4 Outcomes:
    - Error message displayed – Trip Id Not Found
    - Trip path displayed
    - Limited trip statistics displayed
    - Full trip statistics displayed

C. Next, analyze each row of your (non-reduced) decision table to determine which decision items in the row should be marked as "DC" (Don't care). *(This does not need to be submitted).*

D. Once "DC" marking is complete, analyze the rows in your table and remove any duplicate rows. The result is your "reduced" decision table.

E. Submit your reduced decision table.

Submissions & Grading

- You should submit your final *reduced* Decision Table.

   o This should be prepared and submitted in the form of a spreadsheet (spreadsheet file format is fine, and PDF is fine, *as long as the PDF is properly formatted and readable*).

- Submissions are only accepted via D2L. One submission per student.

- Late submissions will be accepted up to one week late, with a 10% late submission penalty.

- Grading will be based upon the correct results present in your reduced Decision Table.

If you do not understand anything in this handout, please ask.
Otherwise the assumption is that you understand the content.

Unsure? Ask!