Project: Car Operation Parser

- o Process
  - ▪ Step 1: Create a Context-Free Grammar, including Production Rules, for car operations.

When driving the car, door should be closed, the window can be up or down, brake should be off, throttle can be pump or release and the transmission should be 1 or 2 or 3 or 4.

Non-terminal:
Drive
Door
Window
Brake
Throttle
Transmission

Terminal:
Open / Close
Up / Down
On / Off
Pump / Release
0 / 1 / 2 / 3 / 4

Start Symbol:
Drive

Production Rule:
Drive --> Close + Window + Brake+ Throttle + Transmission
Window --> Up | Down
Brake --> On | Off
Throttle --> Pump | Release
Transmission --> 1 | 2 | 3 | 4

Revised Simple Production Rule:

Based on:

- o Open Down Off Pump 1
- o Open Up Off Pump 1

Drive --> Open + Window + Off+ Pump + 1

Door = Open | Close
Window = Up | Down
Brake = On | Off
Throttle= Pump | Release
Transmission = 0 | 1 | 2 | 3 | 4

Revised Production Rule: (General Try)
Drive = Open Window Off Pump 1   (Start engine, drive)
Drive = Drive + Close (Door remain closed after start driving)
Drive = Drive + Window (Window can be up or down during driving)
Drive = Drive + Brake (Brake can be on or off during moving)
Drive = Drive + Throttle (Throttle can be pump and release while driving)
Drive = Drive + Release On Transmission (Change Transmission)

Door = Open | Close
Window = Up | Down
Brake = On | Off
Throttle= Pump | Release
Transmission = 0 | 1 | 2 | 3 | 4