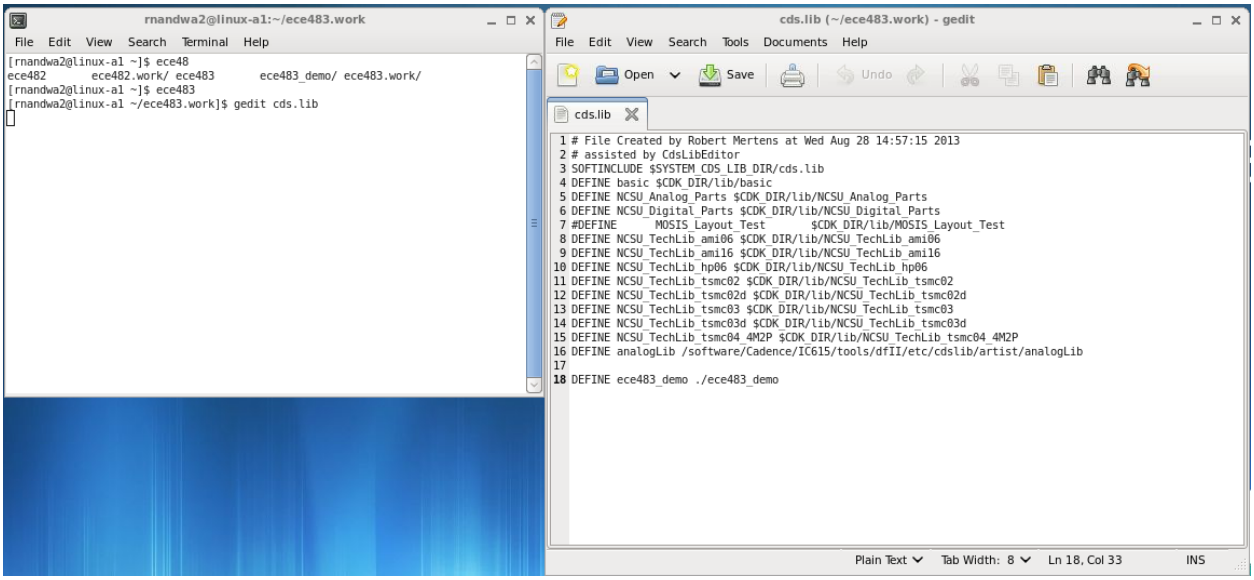
# ECE-483
## Instructions for running demo files

To run the simulations first download both the files in your ece483.work folder and there you will find a "cds.lib".
Open the cds.lib file using vi editor (vi cds.lib) or gedit (gedit cds.lib) using the command that I gave in the bracket or using the GUI.
Add the following line at the end of the cds.lib file
DEFINE ece483_demo . /ece483_demo
(Don't forget the "." before "/")
Then when you will run virtuoso you can see ece483_demo library in the library manager.
I have also uploaded a screen shot for how the cds.lib file will look after you add then new library.




Now you can see the Layout and extracted simulation schematic and saved states for running different simulations.

For HW#5 Q-1 you can see that there are three test benches.
1) With DC sweep in dc simulation options
2) DC sweep with parametric simulation
3) With feedback loop

If you open any schematic file you will find that for all the schematics I have written some notes on the schematic itself about how to run the simulations.
But just in case if you dont remember the general way is go to Launch-> ADE-L-> Session- -> load state and then load the state from the cellview.

# Helpful links for simulation tutorials

For you reference I am also providing the link of the two webpages that might help you in layout and simulation.

http://web.engr.oregonstate.edu/~moon/ece423/cadence/

This first link from Oregon State University have an example of designing a common source amplifier with 0.25um process. You can follow this example for learning about the layout.

Few thing to remember while using this example
1) They use 0.25um process so the minimum grid size they can use is 62.5nm and its multiples while in our case its 0.18um process so the minimum is 45nm and its multiples.
2) They use Metal-4 Metal-5 and Via M5_M4 for capacitor layout. While in our case we should use Metal-5, Metal-6 and Via M6_M5.
3) They run simulations using command line HSPICE while we will do it using ADE and spectre (given in next link)

The Second link is from University of Maryland
http://www.ece.umd.edu/~dilli/research/layout/cadencetutorial/printabletutorial/

They use ami 0.6um process. However the section-3 (Simulation) and section-6 (extracted simulation) of the tutorial is very useful.