

# Module9\_Assignment

March 28, 2020

## 1 Module 9 Assignment

CS5010: Unix Commands

Submitted by:

Christina Torres Cabbell (ctc7by)

*Run in Ubuntu Virtual Desktop for Windows*

### 1. Print your name on terminal

```
[1]: myname = "Christina"
      !echo {myname}
```

Christina

### 2. Print your working directory

```
[2]: pwd
```

```
[2]: '/home/ctc7by/Documents/uva/cs5010/module9'
```

### 3. Set your working dir to your home dir with three different commands

```
[3]: # command 1
      %cd ../../../../
      # command 2
      %cd ~
      # command 3
      %cd '/home/ctc7by/'
```

/home/ctc7by

/home/ctc7by

/home/ctc7by

### 4. Change your directory to the directory of your Jupyter notebook

```
[4]: %cd '/home/ctc7by/Documents/uva/cs5010/module9'
```

/home/ctc7by/Documents/uva/cs5010/module9

5. Use touch to make a txt file and write hello world in that file using output redirection: >. Append your name by >>.

```
[5]: # create new txt file
!touch tmp.txt
```

```
[6]: # check to see that the file is there
!ls
```

Module9\_Assignment.ipynb README.md tmp.txt

```
[7]: string1 = 'hello world'
string2 = 'Christina'
!echo {string1} > tmp.txt
!echo {string2} >> tmp.txt
```

6. Show the contents of the file on the screen (use the address of the file)

```
[8]: cat '/home/ctc7by/Documents/uva/cs5010/module9/tmp.txt'
```

```
hello world
Christina
```

7. Apply commands wc and cat on your txt file and explain what they do (if your txt file is big use less instead of cat)

```
[9]: !wc '/home/ctc7by/Documents/uva/cs5010/module9/tmp.txt'
!cat '/home/ctc7by/Documents/uva/cs5010/module9/tmp.txt'
```

```
2  3 22 /home/ctc7by/Documents/uva/cs5010/module9/tmp.txt
hello world
Christina
```

### Answer

- *wc* shows the number of lines, number of words, number of bytes and filename.
- *cat* allows us to view the contents of a file or concatenate files and redirect output to terminal or files.

8. Use curl to download a dataset from the web. make a new folder inside your current directory and cd in that directory and move the downloaded file to this new directory.

```
[10]: !curl https://raw.githubusercontent.com/serve-and-volley/
      ↳atp-world-tour-tennis-data/master/csv/1_tournaments/tournaments_2010-2019.
      ↳csv -o 'tournaments.csv'
```

% Total	% Received	% Xferd	Average Speed	Time	Time	Time	Current
			Dload	Upload	Total	Spent	Left
100	259k	100	259k	0	0	807k	0
--:--:--	--:--:--	--:--:--	--:--:--	--:--:--	--:--:--	--:--:--	807k

```
[11]: # make new directory
!mkdir tennis
```

```
[12]: # move file to new directory
!mv tournaments.csv tennis
```

## 9. Apply head -n 5 {} to print the first 5 lines of your file (tail is similar)

```
[19]: firstfive = !head -n 5 {'tennis/tournaments.csv'}
print(firstfive)
```

```
['2010-339,1,ATP 250,Brisbane,339,brisbane,Brisbane,2010.01.03,2010,1,3,32,16,Outdoor,Hard,"$424,250",USD,424250,/en/scores/archive/brisbane/339/2010/results,Andy Roddick,/en/players/andy-roddick/r485/overview,andy-roddick,r485,Jeremy Chardy,/en/players/jeremy-chardy/ca12/overview,jeremy-chardy,ca12,Marc Gicquel,/en/players/marc-gicquel/g436/overview,marc-gicquel,g436',
'2010-451,2,ATP 250,Doha,451,doha,Doha,2010.01.04,2010,1,4,32,16,Outdoor,Hard,"$1,110,250",USD,1110250,/en/scores/archive/doha/451/2010/results,Nikolay Davydenko,/en/players/nikolay-davydenko/d402/overview,nikolay-davydenko,d402,Guillermo Garcia-Lopez,/en/players/guillermo-garcia-lopez/g476/overview,guillermo-garcia-lopez,g476,Albert Montanes,/en/players/albert-montanes/m824/overview,albert-montanes,m824',
'2010-891,3,ATP 250,Chennai,891,chennai,Chennai,2010.01.04,2010,1,4,32,16,Outdoor,Hard,"$450,000",USD,450000,/en/scores/archive/chennai/891/2010/results,Marin Cilic,/en/players/marin-cilic/c977/overview,marin-cilic,c977,Marcel Granollers,/en/players/marcel-granollers/g710/overview,marcel-granollers,g710,Santiago Ventura,/en/players/santiago-ventura/v251/overview,santiago-ventura,v251',
'2010-338,4,ATP 250,Sydney,338,sydney,Sydney,2010.01.11,2010,1,11,28,16,Outdoor,Hard,"$424,250",USD,424250,/en/scores/archive/sydney/338/2010/results,Marcos Baghdatis,/en/players/marcos-baghdatis/b837/overview,marcos-baghdatis,b837,Daniel Nestor,/en/players/daniel-nestor/n210/overview,daniel-nestor,n210,Nenad Zimonjic,/en/players/nenad-zimonjic/z072/overview,nenad-zimonjic,z072',
'2010-301,5,ATP 250,Auckland,301,auckland,Auckland,2010.01.11,2010,1,11,28,16,Outdoor,Hard,"$407,250",USD,407250,/en/scores/archive/auckland/301/2010/results,John Isner,/en/players/john-isner/i186/overview,john-isner,i186,Marcus Daniell,/en/players/marcus-daniell/d763/overview,marcus-daniell,d763,Horia Tecau,/en/players/horia-tecau/t749/overview,horia-tecau,t749']
```

```
[18]: # more readable format for csv file
import pandas as pd
data = pd.read_csv('tennis/tournaments.csv')
data.head()
```

```
[18]:    2010-339  1    ATP 250    Brisbane  339    brisbane Brisbane.1 \
0  2010-451  2    ATP 250          Doha  451          doha      Doha
1  2010-891  3    ATP 250    Chennai  891    chennai      Chennai
```

2	2010-338	4	ATP 250	Sydney	338	sydney	Sydney
3	2010-301	5	ATP 250	Auckland	301	auckland	Auckland
4	2010-580	6	Grand Slam	Australian Open	580	australian-open	Melbourne

	2010.01.03	2010	1.1	...	andy-roddick	r485	\
0	2010.01.04	2010	1	...	nikolay-davydenko	d402	
1	2010.01.04	2010	1	...	marin-cilic	c977	
2	2010.01.11	2010	1	...	marcos-baghdatis	b837	
3	2010.01.11	2010	1	...	john-isner	i186	
4	2010.01.18	2010	1	...	roger-federer	f324	

	Jeremy Chardy	/en/players/jeremy-chardy/ca12/overview	\
0	Guillermo Garcia-Lopez	/en/players/guillermo-garcia-lopez/g476/overview	
1	Marcel Granollers	/en/players/marcel-granollers/g710/overview	
2	Daniel Nestor	/en/players/daniel-nestor/n210/overview	
3	Marcus Daniell	/en/players/marcus-daniell/d763/overview	
4	Bob Bryan	/en/players/bob-bryan/b588/overview	

	jeremy-chardy	ca12	Marc Gicquel	\
0	guillermo-garcia-lopez	g476	Albert Montanes	
1	marcel-granollers	g710	Santiago Ventura	
2	daniel-nestor	n210	Nenad Zimonjic	
3	marcus-daniell	d763	Horia Tecau	
4	bob-bryan	b588	Mike Bryan	

	/en/players/marc-gicquel/g436/overview	marc-gicquel	g436
0	/en/players/albert-montanes/m824/overview	albert-montanes	m824
1	/en/players/santiago-ventura/v251/overview	santiago-ventura	v251
2	/en/players/nenad-zimonjic/z072/overview	nenad-zimonjic	z072
3	/en/players/horia-tecau/t749/overview	horia-tecau	t749
4	/en/players/mike-bryan/b589/overview	mike-bryan	b589

[5 rows x 31 columns]

10. Since you know how to use git; write a bash command where you commit the changes in your code with a comment and then push it to a remote Github repository.

```
[14]: # check git status
!git status
```

On branch master

Your branch is up to date with 'origin/master'.

Untracked files:

(use "git add <file>..." to include in what will be committed)

```
Module9_Assignment.ipynb
tennis/
```

tmp.txt

nothing added to commit but untracked files present (use "git add" to track)

```
[15]: # add files to commit
!git add -A
# commit files with comment
!git commit -m "Adding assignment files for module 9"
# push to github
!git push
```

```
[master d7dbd68] Adding assignment files for module 9
4 files changed, 1484 insertions(+)
create mode 100644 .ipynb_checkpoints/Module9_Assignment-checkpoint.ipynb
create mode 100644 Module9_Assignment.ipynb
create mode 100644 tennis/tournaments.csv
create mode 100644 tmp.txt
Counting objects: 7, done.
Compressing objects: 100% (5/5), done.
Writing objects: 100% (7/7), 38.12 KiB | 2.54 MiB/s, done.
Total 7 (delta 0), reused 0 (delta 0)
To https://github.com/ctc7by/module9.git
c34b16a..d7dbd68 master -> master

github - https://github.com/ctc7by/module9
```