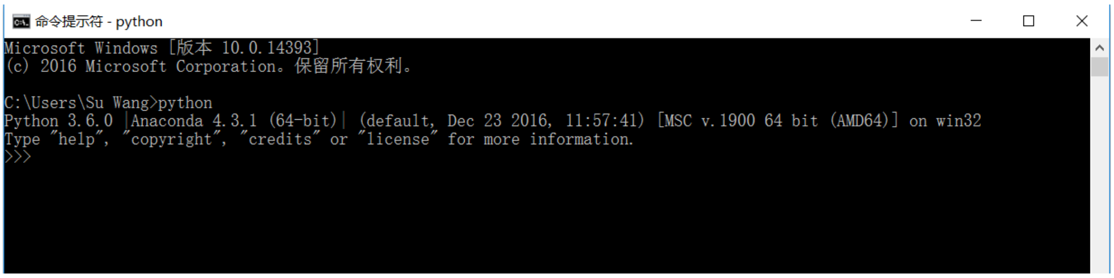
Name: Su Wang Date 09/1/2018

Assignment 1-1 Installing Anaconda (Python)

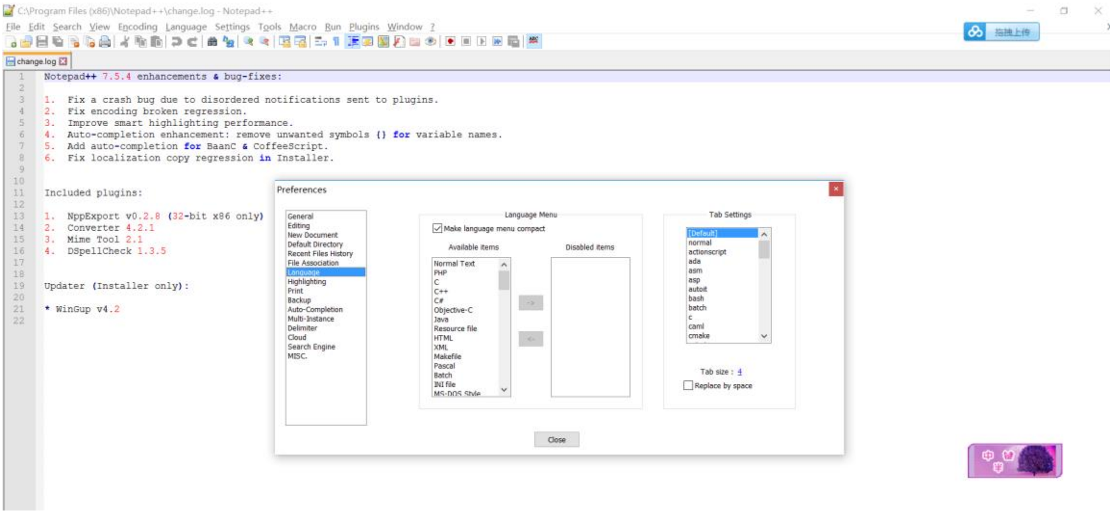
Installation when smoothly. Got Python running on the windows command prompt.



```
Microsoft Windows [版本 10.0.14393]
(c) 2016 Microsoft Corporation。保留所有权利。

C:\Users\Su Wang>python
Python 3.6.0 |Anaconda 4.3.1 (64-bit)| (default, Dec 23 2016, 11:57:41) [MSC v.1900 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>>
```

Comments or observation: N/A

Assignment1-2 Installing Notepad++



```
Notepad++ 7.5.4 enhancements & bug-fixes:

1.  Fix a crash bug due to disordered notifications sent to plugins.
2.  Fix encoding broken regression.
3.  Improve smart highlighting performance.
4.  Auto-completion enhancement: remove unwanted symbols () for variable names.
5.  Add auto-completion for BaanC & CoffeeScript.
6.  Fix localization copy regression in Installer.


Included plugins:

1.  NppExport v0.2.8 (32-bit x86 only)
2.  Converter 4.2.1
3.  Mime Tool 2.1
4.  DSpellCheck 1.3.5


Updater (Installer only):

* WinGup v4.2
```

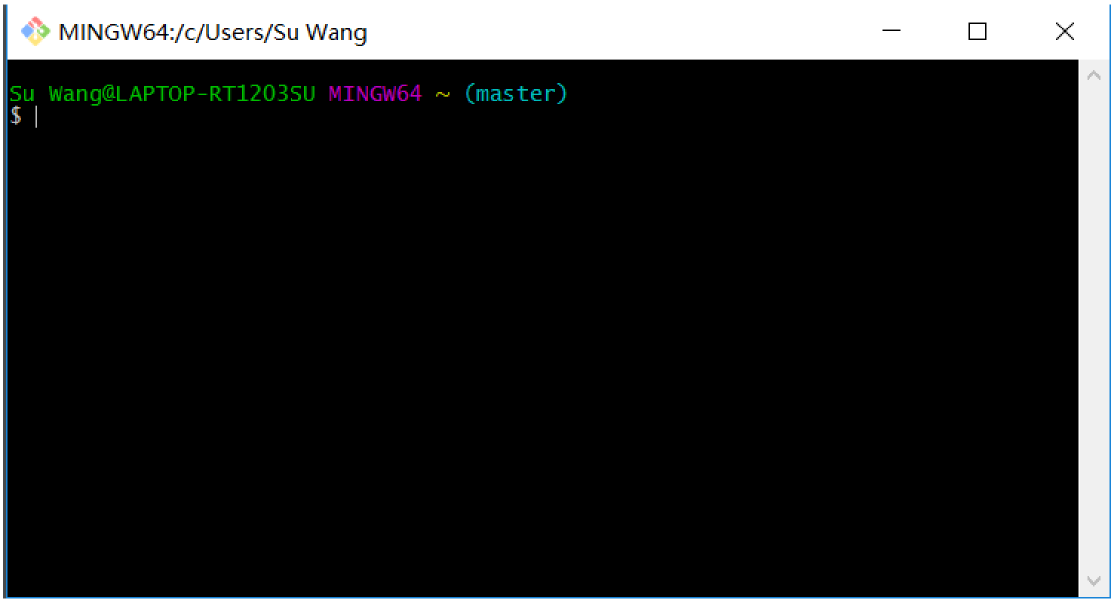
☑ Make language menu compact

Tab size : 4

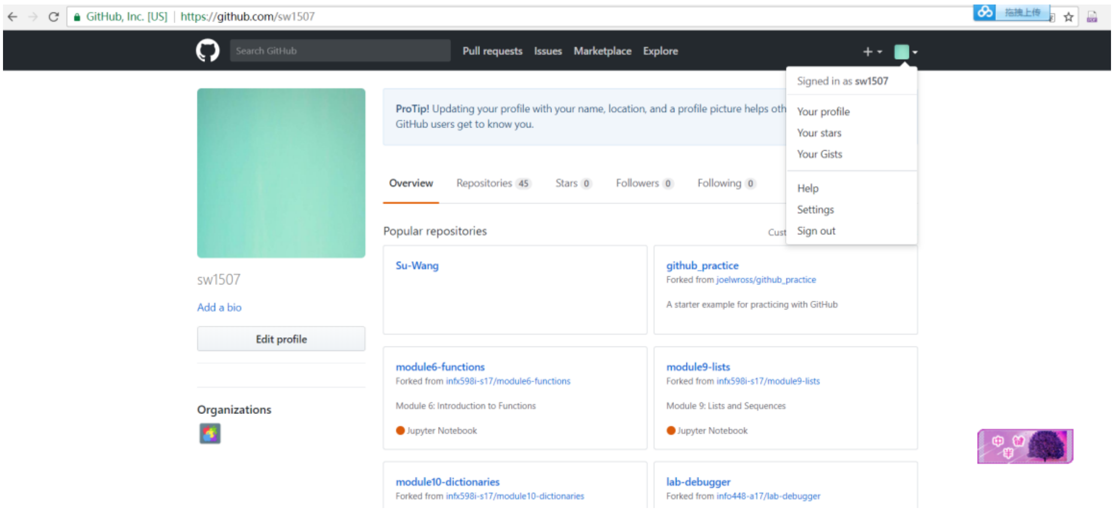
□ Replace by space

Comments or observation: N/A

Assignment 1-3 Installing Git and Github



```
Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ |
```



ProTip! Updating your profile with your name, location, and a profile picture helps oth GitHub users get to know you.

Popular repositories

Su-Wang

github_practice
Forked from joelwross/github_practice
A starter example for practicing with GitHub

module6-functions
Forked from infx598i-s17/module6-functions
Module 6: Introduction to Functions
Jupyter Notebook

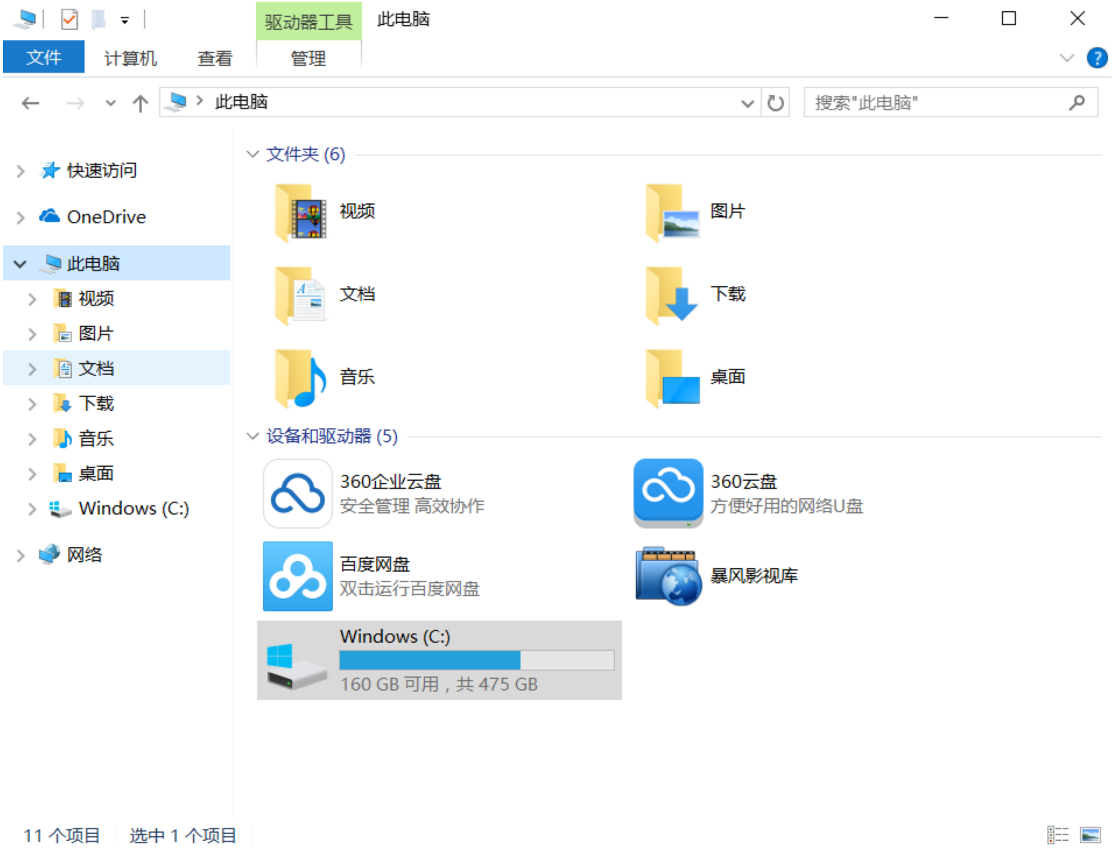
module9-lists
Forked from infx598i-s17/module9-lists
Module 9: Lists and Sequences
Jupyter Notebook

module10-dictionaries
Forked from infx598i-s17/module10-dictionaries

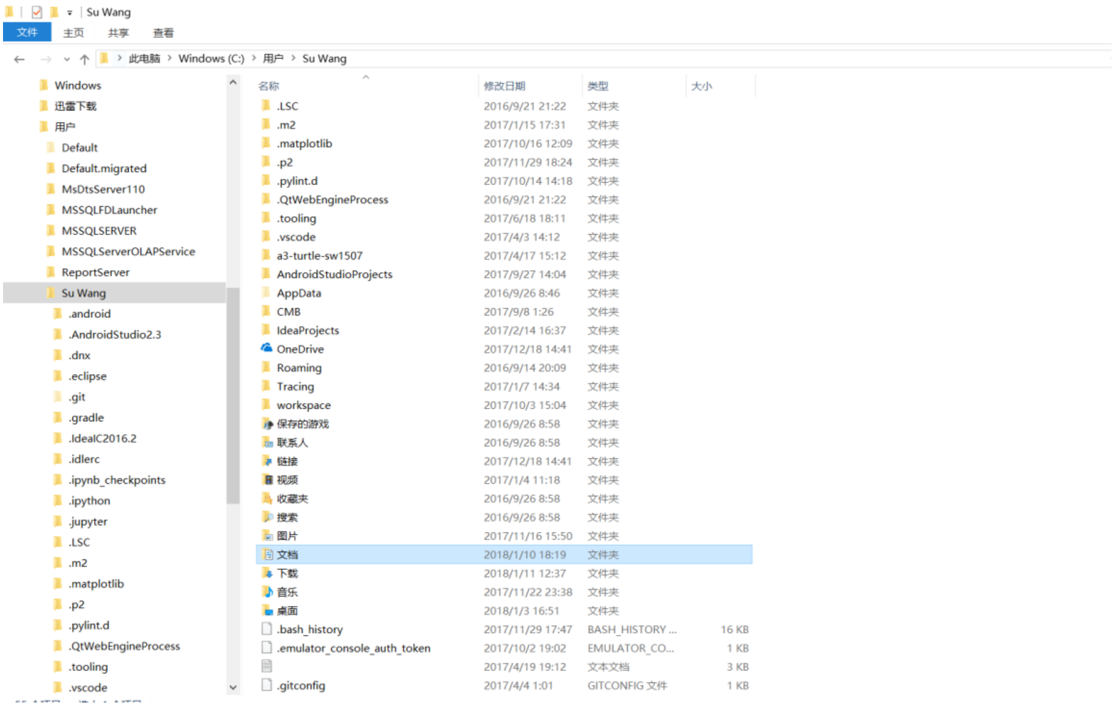
lab-debugger
Forked from info448-a17/lab-debugger

Assignment 1-4: the command line interface

Task1: File explorer

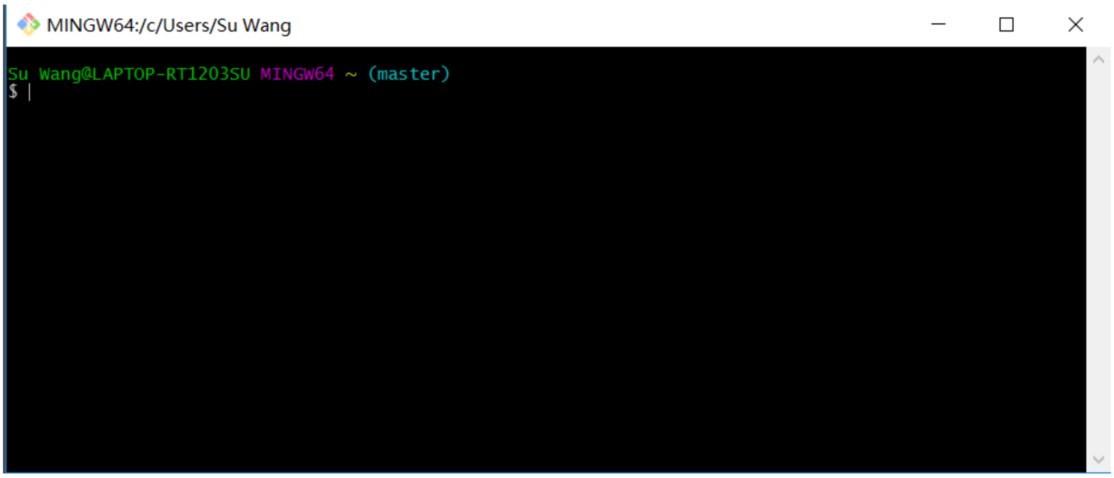


Task 2: Looking at root directory



名称	修改日期	类型	大小
.LSC	2016/9/21 21:22	文件夹	
.m2	2017/1/15 17:31	文件夹	
.matplotlib	2017/10/16 12:09	文件夹	
.p2	2017/11/29 18:24	文件夹	
.pylint.d	2017/10/14 14:18	文件夹	
.QtWebEngineProcess	2016/9/21 21:22	文件夹	
.tooling	2017/6/18 18:11	文件夹	
.vscode	2017/4/3 14:12	文件夹	
a3-turtle-sw1507	2017/4/17 15:12	文件夹	
AndroidStudioProjects	2017/9/27 14:04	文件夹	
AppData	2016/9/26 8:46	文件夹	
CMB	2017/9/8 1:26	文件夹	
IdeaProjects	2017/2/14 16:37	文件夹	
OneDrive	2017/12/18 14:41	文件夹	
Roaming	2016/9/14 20:09	文件夹	
Tracing	2017/1/7 14:34	文件夹	
workspace	2017/10/3 15:04	文件夹	
保存的游戏	2016/9/26 8:58	文件夹	
联系人	2016/9/26 8:58	文件夹	
链接	2017/12/18 14:41	文件夹	
视频	2017/1/4 11:18	文件夹	
收藏夹	2016/9/26 8:58	文件夹	
搜索	2016/9/26 8:58	文件夹	
图片	2017/11/16 15:50	文件夹	
文档	2018/1/10 18:19	文件夹	
下载	2018/1/11 12:37	文件夹	
音乐	2017/11/22 23:38	文件夹	
桌面	2018/1/3 16:51	文件夹	
.bash_history	2017/11/29 17:47	BASH_HISTORY ...	16 KB
.emulator_console_auth_token	2017/10/2 19:02	EMULATOR_CO...	1 KB
	2017/4/19 19:12	文本文档	3 KB
.gitconfig	2017/4/4 1:01	GITCONFIG 文件	1 KB

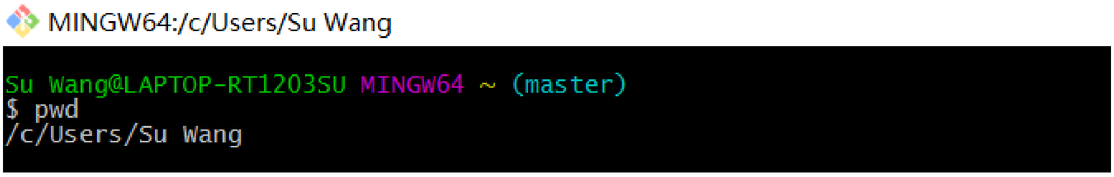
Task3: Looking at command line



```
Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ |
```

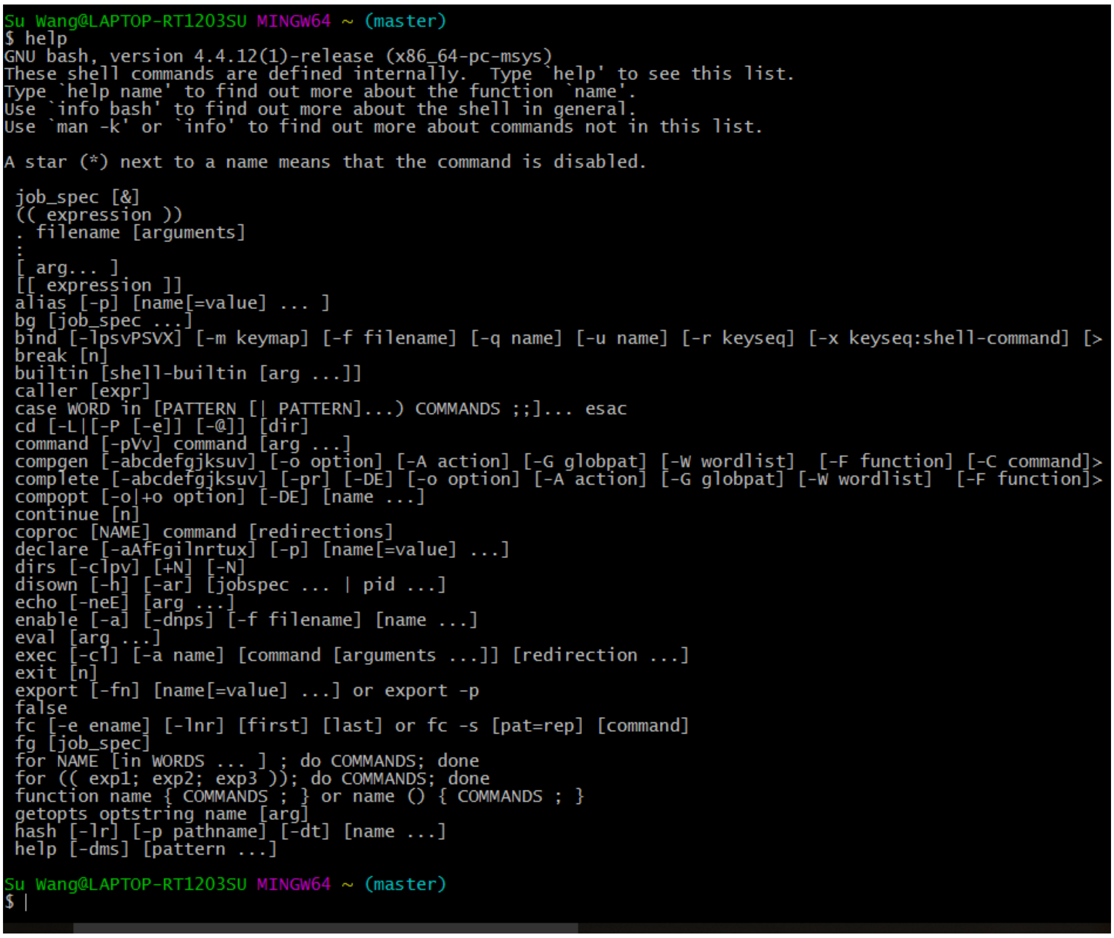
Task4

1. pwd



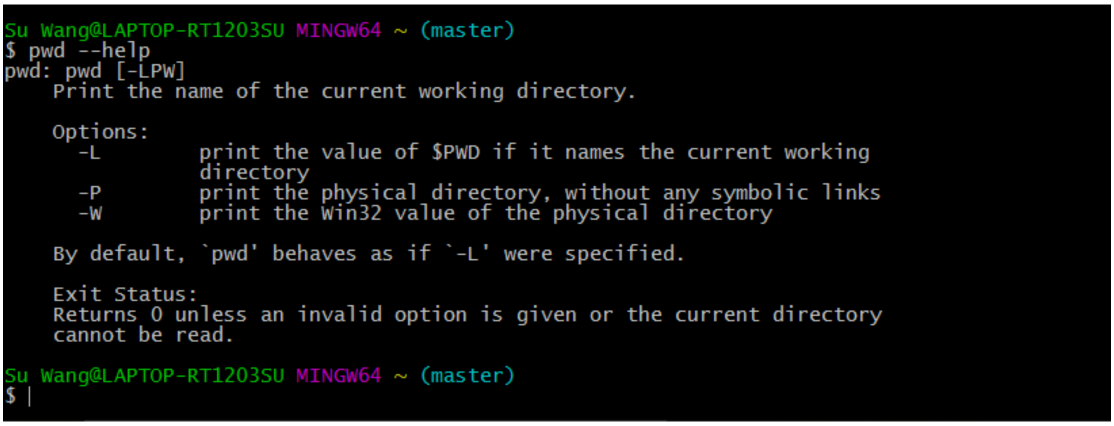
```
Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ pwd
/c/Users/Su Wang
```

2. help



```
Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ help
GNU bash, version 4.4.12(1)-release (x86_64-pc-msys)
These shell commands are defined internally.  Type `help' to see this list.
Type `help name' to find out more about the function `name'.
Use `info bash' to find out more about the shell in general.
Use `man -k' or `info' to find out more about commands not in this list.

A star (*) next to a name means that the command is disabled.

 job_spec [&]
 (( expression ))
 . filename [arguments]
 :
 [ arg... ]
 [[ expression ]]
 alias [-p] [name[=value] ... ]
 bg [job_spec ...]
 bind [-lpsvPSVX] [-m keymap] [-f filename] [-q name] [-u name] [-r keyseq] [-x keyseq:shell-command] [>
 break [n]
 builtin [shell-builtin [arg ...]]
 caller [expr]
 case WORD in [PATTERN [| PATTERN]...) COMMANDS ;;]... esac
 cd [-L|[-P [-e]] [-@]] [dir]
 command [-pVv] command [arg ...]
 compgen [-abcdefgjksuv] [-o option] [-A action] [-G globpat] [-W wordlist]  [-F function] [-C command]>
 complete [-abcdefgjksuv] [-pr] [-DE] [-o option] [-A action] [-G globpat] [-W wordlist]  [-F function]>
 compopt [-o|+o option] [-DE] [name ...]
 continue [n]
 coproc [NAME] command [redirections]
 declare [-aAfFgilnrtux] [-p] [name[=value] ...]
 dirs [-clpv] [+N] [-N]
 disown [-h] [-ar] [jobspec ... | pid ...]
 echo [-neE] [arg ...]
 enable [-a] [-dnps] [-f filename] [name ...]
 eval [arg ...]
 exec [-cl] [-a name] [command [arguments ...]] [redirection ...]
 exit [n]
 export [-fn] [name[=value] ...] or export -p
 false
 fc [-e ename] [-lnr] [first] [last] or fc -s [pat=rep] [command]
 fg [job_spec]
 for NAME [in WORDS ... ] ; do COMMANDS; done
 for (( exp1; exp2; exp3 )); do COMMANDS; done
 function name { COMMANDS ; } or name () { COMMANDS ; }
 getopts optstring name [arg]
 hash [-lr] [-p pathname] [-dt] [name ...]
 help [-dms] [pattern ...]

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ |
```

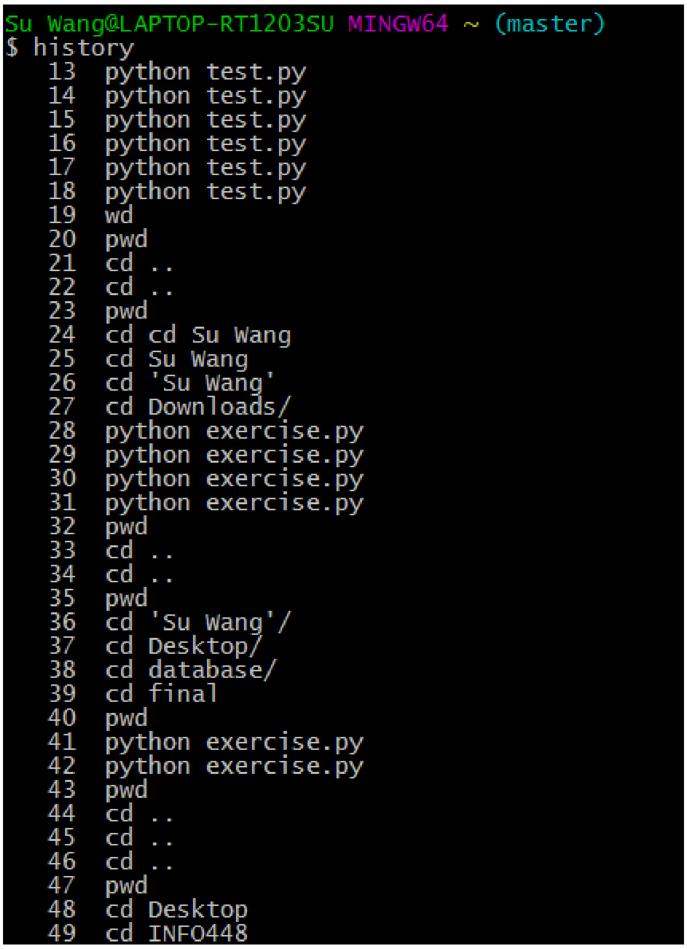
3. pwd –help



```
Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ pwd --help
pwd: pwd [-LPW]
    Print the name of the current working directory.

    Options:
      -L        print the value of $PWD if it names the current working
                directory
      -P        print the physical directory, without any symbolic links
      -W        print the Win32 value of the physical directory

    By default, `pwd' behaves as if `-L' were specified.

    Exit Status:
    Returns 0 unless an invalid option is given or the current directory
    cannot be read.

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ |
```

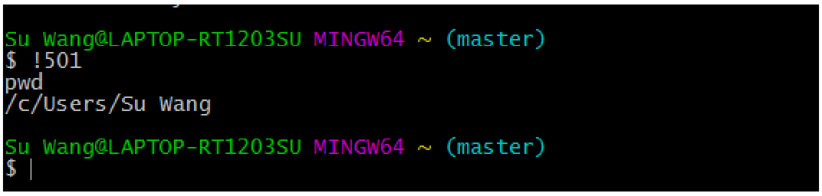
Command History Feature

2.



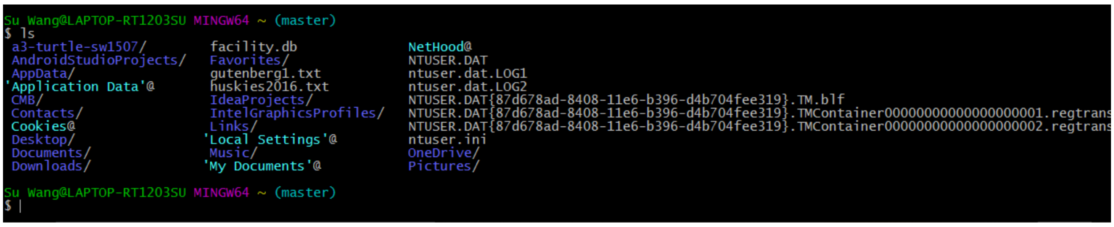
```
Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ history
   13  python test.py
   14  python test.py
   15  python test.py
   16  python test.py
   17  python test.py
   18  python test.py
   19  wd
   20  pwd
   21  cd ..
   22  cd ..
   23  pwd
   24  cd cd Su Wang
   25  cd Su Wang
   26  cd 'Su Wang'
   27  cd Downloads/
   28  python exercise.py
   29  python exercise.py
   30  python exercise.py
   31  python exercise.py
   32  pwd
   33  cd ..
   34  cd ..
   35  pwd
   36  cd 'Su Wang'/
   37  cd Desktop/
   38  cd database/
   39  cd final
   40  pwd
   41  python exercise.py
   42  python exercise.py
   43  pwd
   44  cd ..
   45  cd ..
   46  cd ..
   47  pwd
   48  cd Desktop
   49  cd INFO448
```

3.

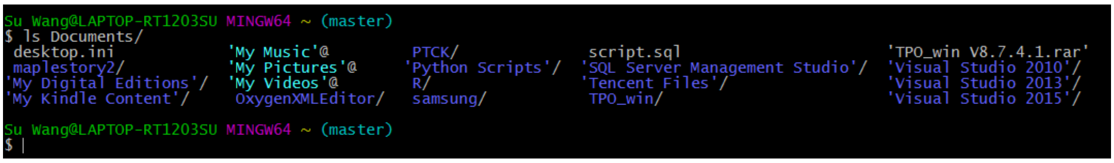


```
Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ !501
pwd
/c/Users/Su Wang

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ |
```

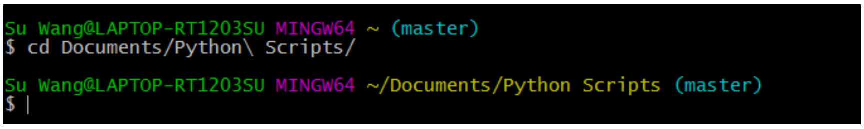
Task5: Listing Directories and Files



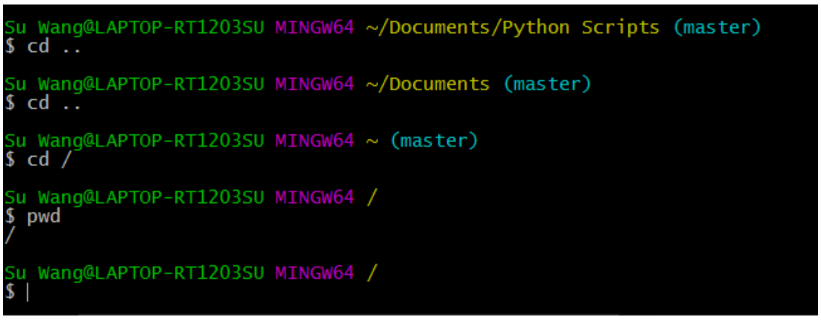
```
Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ ls
 a3-turtle-sw1507/         facility.db             NetHood@
 AndroidStudioProjects/    Favorites/              NTUSER.DAT
 AppData/                  gutenberg1.txt          ntuser.dat.LOG1
'Application Data'@        huskies2016.txt         ntuser.dat.LOG2
 CMB/                      IdeaProjects/           NTUSER.DAT{87d678ad-8408-11e6-b396-d4b704fee319}.TM.blf
 Contacts/                 IntelGraphicsProfiles/  NTUSER.DAT{87d678ad-8408-11e6-b396-d4b704fee319}.TMContainer00000000000000000001.regtrans
 Cookies@                  Links/                  NTUSER.DAT{87d678ad-8408-11e6-b396-d4b704fee319}.TMContainer00000000000000000002.regtrans
 Desktop/                 'Local Settings'@        ntuser.ini
 Documents/                Music/                  OneDrive/
 Downloads/               'My Documents'@          Pictures/

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ |
```



```
Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ ls Documents/
 desktop.ini            'My Music'@          PTCK/              script.sql                        'TPO_win V8.7.4.1.rar'
 maplestory2/           'My Pictures'@      'Python Scripts'/  'SQL Server Management Studio'/  'Visual Studio 2010'/
'My Digital Editions'/  'My Videos'@         R/                'Tencent Files'/                  'Visual Studio 2013'/
'My Kindle Content'/     OxygenXMLEditor/    samsung/           TPO_win/                         'Visual Studio 2015'/

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ |
```

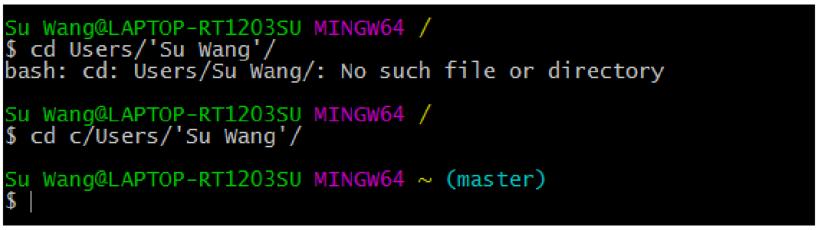


```
Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ cd Documents/Python\ Scripts/

Su Wang@LAPTOP-RT1203SU MINGW64 ~/Documents/Python Scripts (master)
$ |
```



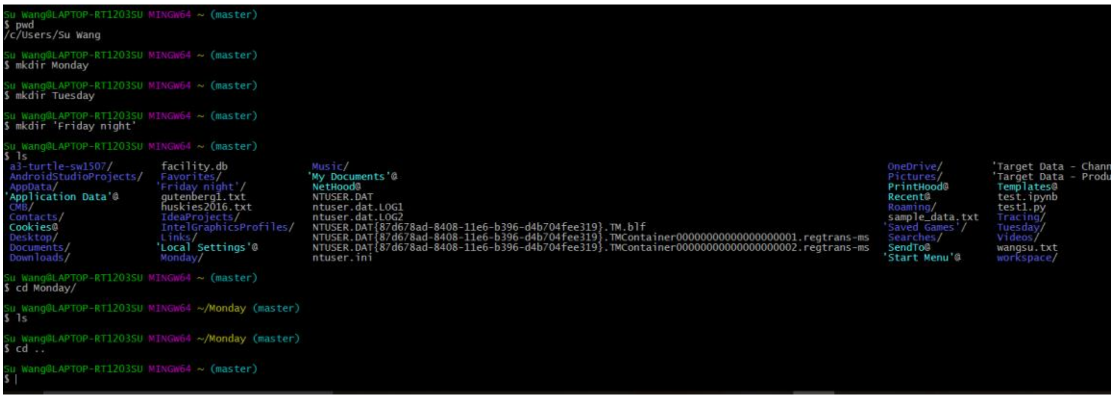
```
Su Wang@LAPTOP-RT1203SU MINGW64 ~/Documents/Python Scripts (master)
$ cd ..

Su Wang@LAPTOP-RT1203SU MINGW64 ~/Documents (master)
$ cd ..

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ cd /

Su Wang@LAPTOP-RT1203SU MINGW64 /
$ pwd
/

Su Wang@LAPTOP-RT1203SU MINGW64 /
$ |
```

Task6:

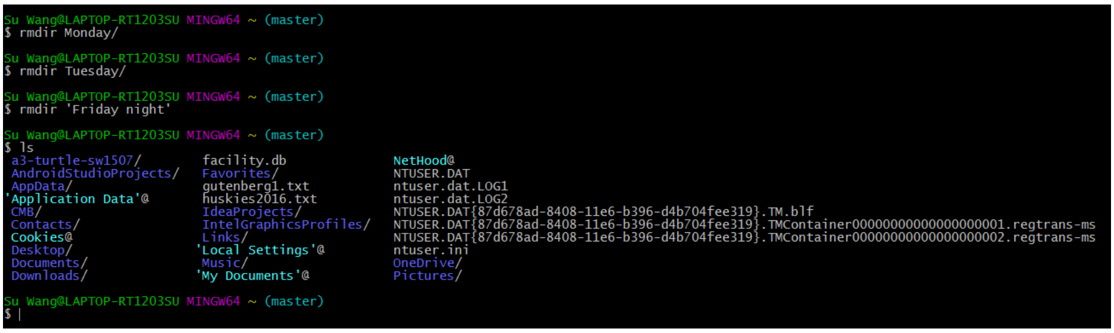


```
Su Wang@LAPTOP-RT1203SU MINGW64 /
$ cd Users/'Su Wang'/
bash: cd: Users/Su Wang/: No such file or directory

Su Wang@LAPTOP-RT1203SU MINGW64 /
$ cd c/Users/'Su Wang'/

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ |
```

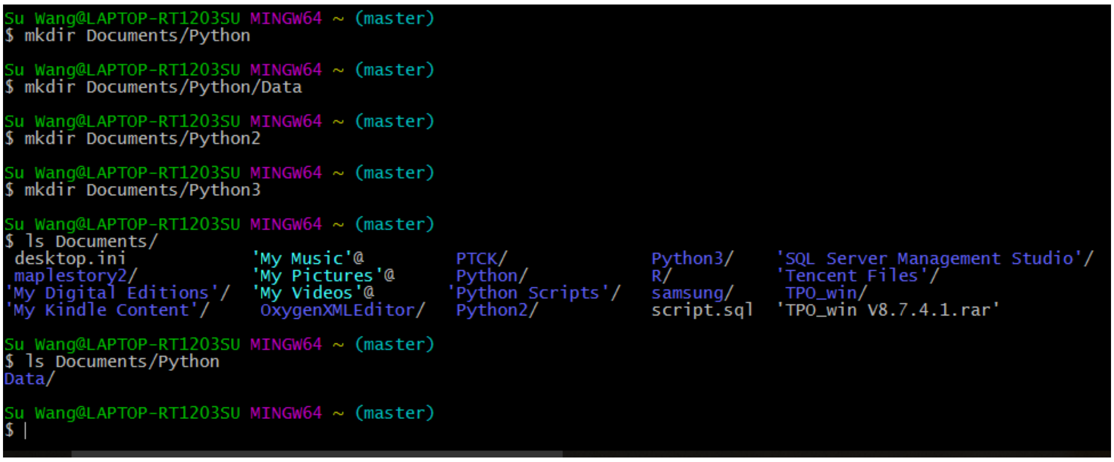
Task7



```
Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ pwd
/c/Users/Su Wang

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ mkdir Monday

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ mkdir Tuesday

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ mkdir 'Friday night'

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ ls
 a3-turtle-sw1507/          facility.db               Music/                                                                                          OneDrive/         'Target Data - Chann
 AndroidStudioProjects/     Favorites/               'My Documents'@                                                                                  Pictures/         'Target Data - Produ
 AppData/                  'Friday night'/            NetHood@                                                                                        PrintHood@         Templates@
'Application Data'@         gutenberg1.txt            NTUSER.DAT                                                                                      Recent@            test.ipynb
 CMB/                       huskies2016.txt           ntuser.dat.LOG1                                                                                 Roaming/           test1.py
 Contacts/                  IdeaProjects/             ntuser.dat.LOG2                                                                                 sample_data.txt    Tracing/
 Cookies@                   IntelGraphicsProfiles/    NTUSER.DAT{87d678ad-8408-11e6-b396-d4b704fee319}.TM.blf                                        'Saved Games'/      Tuesday/
 Desktop/                   Links/                    NTUSER.DAT{87d678ad-8408-11e6-b396-d4b704fee319}.TMContainer00000000000000000001.regtrans-ms   Searches/          Videos/
 Documents/                'Local Settings'@          NTUSER.DAT{87d678ad-8408-11e6-b396-d4b704fee319}.TMContainer00000000000000000002.regtrans-ms   SendTo@            wangsu.txt
 Downloads/                 Monday/                   ntuser.ini                                                                                     'Start Menu'@       workspace/

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ cd Monday/

Su Wang@LAPTOP-RT1203SU MINGW64 ~/Monday (master)
$ ls

Su Wang@LAPTOP-RT1203SU MINGW64 ~/Monday (master)
$ cd ..

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ |
```

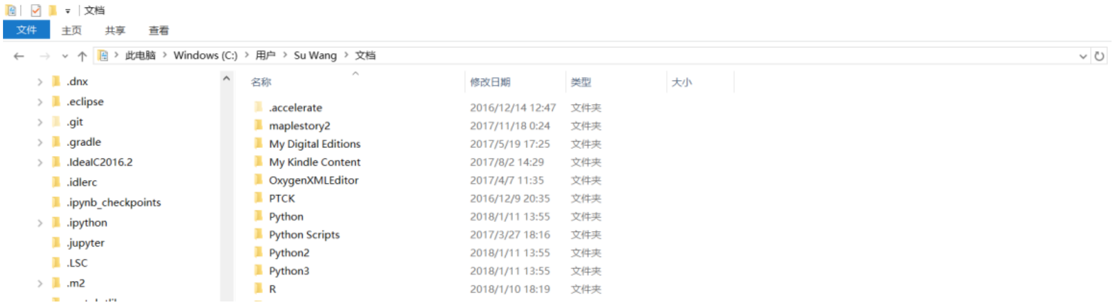


```
Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ rmdir Monday/

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ rmdir Tuesday/

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ rmdir 'Friday night'

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ ls
 a3-turtle-sw1507/          facility.db               NetHood@
 AndroidStudioProjects/     Favorites/                NTUSER.DAT
 AppData/                   gutenberg1.txt            ntuser.dat.LOG1
'Application Data'@         huskies2016.txt           ntuser.dat.LOG2
 CMB/                       IdeaProjects/             NTUSER.DAT{87d678ad-8408-11e6-b396-d4b704fee319}.TM.blf
 Contacts/                  IntelGraphicsProfiles/    NTUSER.DAT{87d678ad-8408-11e6-b396-d4b704fee319}.TMContainer00000000000000000001.regtrans-ms
 Cookies@                   Links/                    NTUSER.DAT{87d678ad-8408-11e6-b396-d4b704fee319}.TMContainer00000000000000000002.regtrans-ms
 Desktop/                  'Local Settings'@          ntuser.ini
 Documents/                 Music/                    OneDrive/
 Downloads/                'My Documents'@            Pictures/

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ |
```



```
Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ mkdir Documents/Python

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ mkdir Documents/Python/Data

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ mkdir Documents/Python2

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ mkdir Documents/Python3

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ ls Documents/
 desktop.ini             'My Music'@         PTCK/             Python3/     'SQL Server Management Studio'/
 maplestory2/            'My Pictures'@      Python/           R/           'Tencent Files'/
'My Digital Editions'/   'My Videos'@       'Python Scripts'/  samsung/      TPO_win/
'My Kindle Content'/      OxygenXMLEditor/   Python2/          script.sql   'TPO_win V8.7.4.1.rar'

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ ls Documents/Python
Data/

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ |
```

Task8



.dnx
.eclipse
.git
.gradle
.IdealC2016.2
.idlerc
.ipynb_checkpoints
.ipython
.jupyter
.LSC
.m2

名称	修改日期	类型	大小
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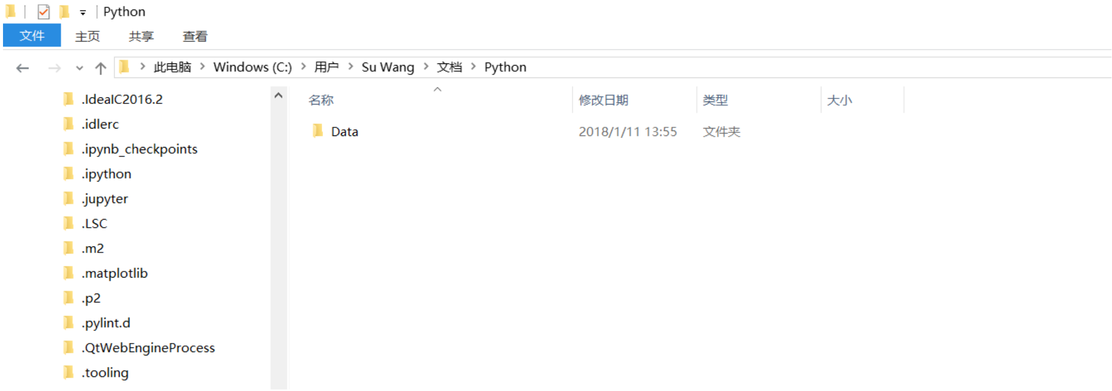
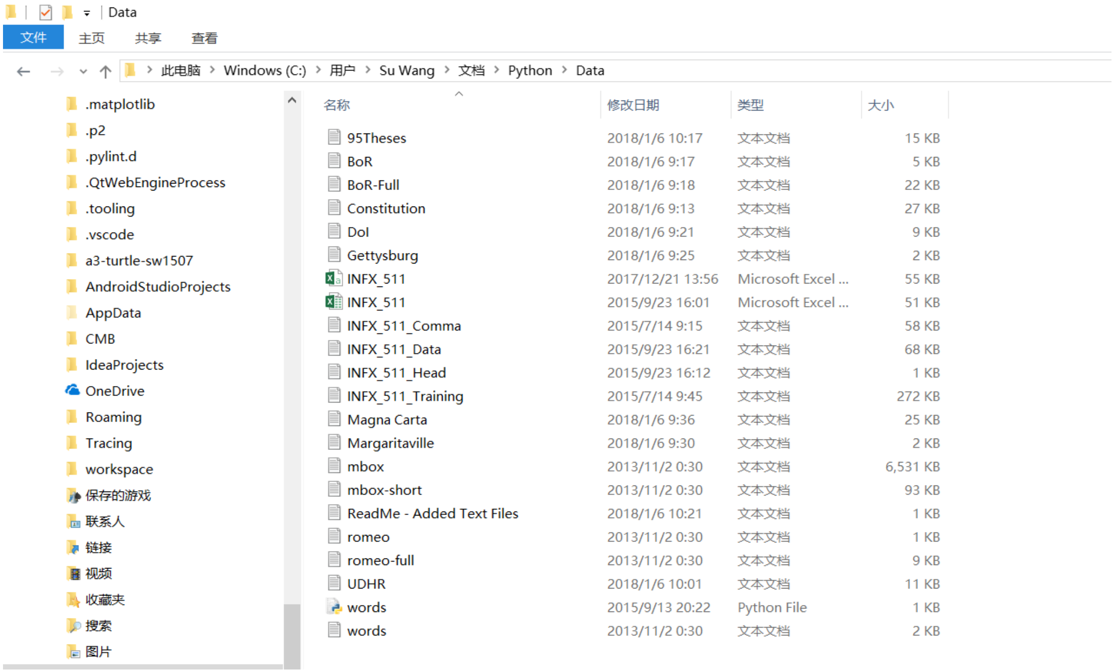
maplestory2	2017/11/18 0:24	文件夹	
My Digital Editions	2017/5/19 17:25	文件夹	
My Kindle Content	2017/8/2 14:29	文件夹	
OxygenXMLEditor	2017/4/7 11:35	文件夹	
PTCK	2016/12/9 20:35	文件夹	
Python	2018/1/11 13:55	文件夹	
Python Scripts	2017/3/27 18:16	文件夹	
Python2	2018/1/11 13:55	文件夹	
Python3	2018/1/11 13:55	文件夹	
R	2018/1/10 18:19	文件夹	



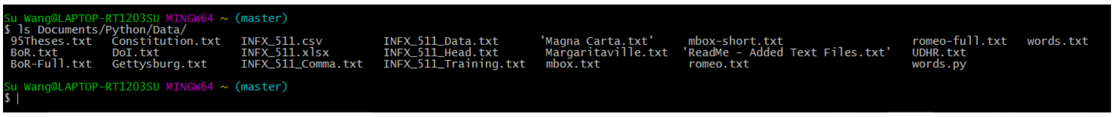
.IdealC2016.2
.idlerc
.ipynb_checkpoints
.ipython
.jupyter
.LSC
.m2
.matplotlib
.p2
.pylint.d
.QtWebEngineProcess
.tooling

名称	修改日期	类型	大小
Data	2018/1/11 13:55	文件夹	

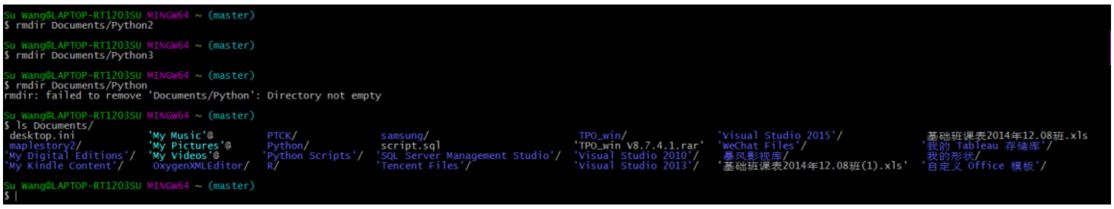

Data
文件
主页
共享
查看
此电脑 › Windows (C:) › 用户 › Su Wang › 文档 › Python › Data

.matplotlib
.p2
.pylint.d
.QtWebEngineProcess
.tooling
.vscode
a3-turtle-sw1507
AndroidStudioProjects
AppData
CMB
IdeaProjects
OneDrive
Roaming
Tracing
workspace
保存的游戏
联系人
链接
视频
收藏夹
搜索
图片

名称	修改日期	类型	大小
95Theses	2018/1/6 10:17	文本文档	15 KB
BoR	2018/1/6 9:17	文本文档	5 KB
BoR-Full	2018/1/6 9:18	文本文档	22 KB
Constitution	2018/1/6 9:13	文本文档	27 KB
DoI	2018/1/6 9:21	文本文档	9 KB
Gettysburg	2018/1/6 9:25	文本文档	2 KB
INFX_511	2017/12/21 13:56	Microsoft Excel ...	55 KB
INFX_511	2015/9/23 16:01	Microsoft Excel ...	51 KB
INFX_511_Comma	2015/7/14 9:15	文本文档	58 KB
INFX_511_Data	2015/9/23 16:21	文本文档	68 KB
INFX_511_Head	2015/9/23 16:12	文本文档	1 KB
INFX_511_Training	2015/7/14 9:45	文本文档	272 KB
Magna Carta	2018/1/6 9:36	文本文档	25 KB
Margaritaville	2018/1/6 9:30	文本文档	2 KB
mbox	2013/11/2 0:30	文本文档	6,531 KB
mbox-short	2013/11/2 0:30	文本文档	93 KB
ReadMe - Added Text Files	2018/1/6 10:21	文本文档	1 KB
romeo	2013/11/2 0:30	文本文档	1 KB
romeo-full	2013/11/2 0:30	文本文档	9 KB
UDHR	2018/1/6 10:01	文本文档	11 KB
words	2015/9/13 20:22	Python File	1 KB
words	2013/11/2 0:30	文本文档	2 KB

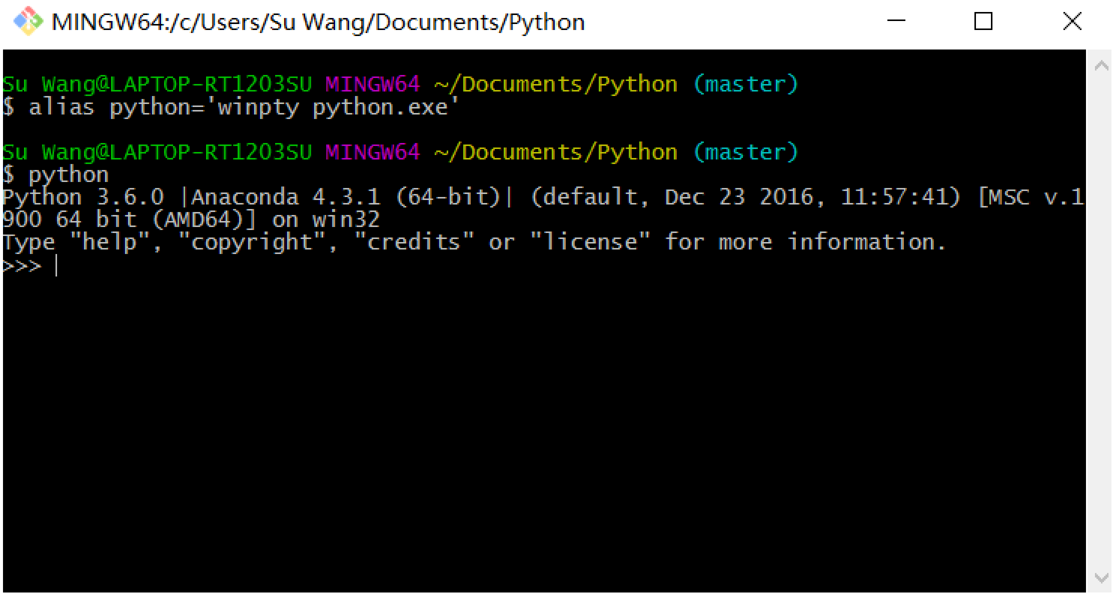


```
Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ ls Documents/Python/Data/
 95Theses.txt   Constitution.txt   INFX_511.csv         INFX_511_Data.txt       'Magna Carta.txt'     mbox-short.txt                    romeo-full.txt   words.txt
 BoR.txt        DoI.txt            INFX_511.xlsx        INFX_511_Head.txt        Margaritaville.txt  'ReadMe - Added Text Files.txt'   UDHR.txt
 BoR-Full.txt   Gettysburg.txt     INFX_511_Comma.txt   INFX_511_Training.txt    mbox.txt             romeo.txt                        words.py

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ |
```



```
Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ rmdir Documents/Python2

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ rmdir Documents/Python3

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ rmdir Documents/Python
rmdir: failed to remove 'Documents/Python': Directory not empty

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ ls Documents/
 desktop.ini              'My Music'@          PTCK/                samsung/                              TPO_win/                  'Visual Studio 2015'/                 基础班课表2014年12.08班.xls
 maplestory2/             'My Pictures'@       Python/              script.sql                           'TPO_win V8.7.4.1.rar'    'WeChat Files'/                      '我的 Tableau 存储库'/
'My Digital Editions'/    'My Videos'@        'Python Scripts'/    'SQL Server Management Studio'/      'Visual Studio 2010'/       暴风影视库/                           我的形状/
'My Kindle Content'/       OxygenXMLEditor/    R/                  'Tencent Files'/                     'Visual Studio 2013'/      '基础班课表2014年12.08班(1).xls'     '自定义 Office 模板'/

Su Wang@LAPTOP-RT1203SU MINGW64 ~ (master)
$ |
```

Task9



```
Su Wang@LAPTOP-RT1203SU MINGW64 ~/Documents/Python (master)
$ alias python='winpty python.exe'

Su Wang@LAPTOP-RT1203SU MINGW64 ~/Documents/Python (master)
$ python
Python 3.6.0 |Anaconda 4.3.1 (64-bit)| (default, Dec 23 2016, 11:57:41) [MSC v.1
900 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> |
```

1.13 Exercise

Exercise1. C

Exercise2. A sequence of Python statements that have been crafted to do something

Exercise3. They are translators that convert the programs to machine language for actual execution by the CPU. The translators fall into two categories, interpreters and compilers. An interpreter reads the source code of the program as written by the programmer parses the source code, and interprets the instructions on the fly. Python is an interpreter. It can have interactive conversation.

A compiler needs to be handed the entire program in a file, and then it runs a process to translate the high-level source code into machine language and then the compiler puts the resulting machine language into a file for later execution.

Exercise4: Python interpreter

Exercise5 :>>> print 'Hello world!

Exercise6: Main memory

Exercise7: b) 44

Exercise 8: Explain each of the following using an example of a human capability:
(1) Central processing unit - brain
(2) Main Memory The main memory is like our waking consciousness - what we are thinking right now.
(3) Secondary Memory: The secondary memory is like our long-term memory. A student stores information away in his or her long-term memory while studying material in order to recall it later for quizzes, even after sleeping.
(4) Input Device: 5 senses.
(5) Output Device: facial expressions, gestures, or speech.Exercise9: the line and character that Python indicates in a syntax error may just be a starting point for your investigation.