Kerry Gip

1. Find all text files (files with extension .txt) under models-master directory. Run your command and take a screenshot from the terminal (your command should be included in the screenshot as well as the top 10 files in the output). [5 points]

```
kerry@kerry-VirtualBox:~/Desktop/models-master$ find . -type f -name "*.txt"
./research/deep_speech/requirements.txt
./research/deep_speech/data/vocabulary.txt
./research/object_detection/test_images/image_info.txt
./research/object_detection/data/mscoco_minival_ids.txt
./research/seq_flow_lite/configs/go_emotion_prado.txt
./research/seq_flow_lite/configs/civil_comments_prado.txt
./research/vid2depth/dataset/kitti/static_frames.txt
./research/vid2depth/dataset/kitti/test_scenes_eigen.txt
./research/vid2depth/dataset/kitti/test_files_eigen.txt
./research/vid2depth/dataset/kitti/test_scenes_stereo.txt
```

2. Find all files under models-master/official/ that do not end with .py. [5 points]

```
kerry@kerry-VirtualBox:~/Desktop/models-master$ find . -not -name "*.py"
.
./community
./community/README.md
./tensorflow_models
./tensorflow_models/nlp
./tensorflow_models/vision
./tensorflow_models/LICENSE
./.gitignore
./ISSUES.md
./CONTRIBUTING.md
./orbit
./orbit/actions
./orbit/LICENSE
./orbit/README.md
```

3. Find all files with group write permission under models-master/official/nlp. (Hint: review the -perm option of the find command). [5 points]

```
kerry@kerry-VirtualBox:~/Desktop/models-master/official/nlp$ find -perm -g=w
.
./__init__.py
./modeling
./modeling/networks
./modeling/networks/classification.py
./modeling/networks/packed_sequence_embedding_test.py
./modeling/networks/albert_encoder_test.py
./modeling/networks/__init__.py
./modeling/networks/span_labeling_test.py
./modeling/networks/bert_encoder.py
./modeling/networks/bert_encoder_test.py
./modeling/networks/span_labeling.py
./modeling/networks/funnel_transformer.py
```

Find -perm -g+w also does the same thing

4. Find all files ending with '.txt' or '.json' under models-master. [5 points]

```
kerry@kerry-VirtualBox:~/Desktop/models-master$ find . | egrep ".txt|.json"
./research/deep_speech/requirements.txt
./research/deep_speech/data/vocabulary.txt
./research/object_detection/test_images/image_info.txt
./research/object_detection/test_images/snapshot_serengeti/context_rcnn_demo_me
tadata.json
./research/object_detection/utils/json_utils_test.py
./research/object_detection/utils/json_utils.py
```

This also shows pbtxt

This shows strictly .txt

```
kerry@kerry-VirtualBox:~/Desktop/models-master$ find ./ -type f \( -name \*.txt
 -o -name \*.json \)
./research/deep_speech/requirements.txt
./research/deep_speech/data/vocabulary.txt
./research/object_detection/test_images/image_info.txt
./research/object_detection/test_images/snapshot_serengeti/context_rcnn_demo_me
tadata.json
./research/object_detection/data/mscoco_minival_ids.txt
./research/seq_flow_lite/configs/go_emotion_prado.txt
./research/seq_flow_lite/configs/civil_comments_prado.txt
./research/vid2depth/dataset/kitti/static_frames.txt
```

5. Modify your command from exercise 1 to sort the list of text files lexicographically. (Hint: use the pipe | operator and pass the results of the find command to sort. [10 points]

```
kerry@kerry-VirtualBox:~/Desktop/models-master$ find . -type f -name "*.txt" | sort
./official/projects/movinet/requirements.txt
./official/projects/nhnet/testdata/vocab.txt
./official/requirements.txt
./research/attention_ocr/python/datasets/testdata/fsns/charset_size=134.txt
./research/attention_ocr/python/datasets/testdata/fsns/links.txt
./research/cognitive_planning/label_map.txt
./research/deeplab/g3doc/img/image_info.txt
./research/deep_speech/data/vocabulary.txt
./research/deep_speech/requirements.txt
./research/object_detection/data/mscoco_minival_ids.txt
```

6. Inspect which files and directories are using most of the space in models-master, i.e., sort all files and directories under models-master based on their size in reverse order. (Hint: use the du command). [10 points]

```
kerry@kerry-VirtualBox:~/Desktop/models-master$ du -h | sort -n -r
956K    ./research/object_detection/meta_architectures
880K    ./official/vision/modeling
856K    ./official/vision/beta/modeling
852K    ./research/object_detection/colab_tutorials
828K    ./research/seq_flow_lite
756K    ./official/legacy/detection
728K    ./research/vid2depth
712K    ./official/projects/edgetpu
692K    ./official/nlp/modeling/layers
680K    ./research/attention_ocr/python/datasets
668K    ./research/nst_blogpost
652K    ./research/attention_ocr/python/datasets/testdata
648K    ./research/attention_ocr/python/datasets/testdata/fsns
620K    ./official/vision/beta/projects/yolo
```

7. How many URIs have return codes of 200? [10 points]

```
kerry@kerry-VirtualBox:~/Desktop$ grep "200" wc_day6_1.log |wc -l
39800
```

8. What are the 5 most frequently visited URIs (consider only the .html pages)? Your command must only output the top 5 URIs and their counts. Provide a screenshot that includes your command and its output. [10 points]

```
kerry@kerry-VirtualBox:~/Desktop$ grep ".*html" wc_day6_1.log | uniq -c | sort -
nr |head -5
      2 936 - - [30/Apr/1998:22:51:52 +0000] "GET /english/nav_inet.html HTTP/1.
0" 304 0
      2 1040 - - [30/Apr/1998:22:51:08 +0000] "GET /english/history/history_of/t
he_cup.html HTTP/1.1" 200 7381
      1 996 - - [30/Apr/1998:22:51:13 +0000] "GET /french/nav_top_inet.html HTTP
/1.0" 200 374
      1 996 - - [30/Apr/1998:22:51:09 +0000] "GET /french/index.html HTTP/1.0" 2
00 954
      1 995 - - [30/Apr/1998:22:43:03 +0000] "GET /french/venues/body.html HTTP/
1.0" 200 2042
```

Using -r and -nr as flags and counted all

```
kerry@kerry-VirtualBox:~/Desktop$ cat  wc_day6_1.log | uniq -c | sort -r | head
-5
      2 918 - - [30/Apr/1998:22:45:25 +0000] "GET /images/space.gif HTTP/1.0" 20
0 42
      2 884 - - [30/Apr/1998:22:44:13 +0000] "GET /images/ligneb01.gif HTTP/1.0"
 304 0
      2 813 - - [30/Apr/1998:22:33:16 +0000] "GET /images/ligne01.gif HTTP/1.0"
304 0
      2 813 - - [30/Apr/1998:22:33:15 +0000] "GET /images/ligneb01.gif HTTP/1.0"
 304 0
      2 81 - - [30/Apr/1998:22:03:00 +0000] "GET /images/ligneb01.gif HTTP/1.0"
200 169
kerry@kerry-VirtualBox:~/Desktop$ cat  wc_day6_1.log | uniq -c | sort -nr | head
 -5
      2 918 - - [30/Apr/1998:22:45:25 +0000] "GET /images/space.gif HTTP/1.0" 20
0 42
      2 884 - - [30/Apr/1998:22:44:13 +0000] "GET /images/ligneb01.gif HTTP/1.0"
 304 0
      2 813 - - [30/Apr/1998:22:33:16 +0000] "GET /images/ligne01.gif HTTP/1.0"
304 0
      2 813 - - [30/Apr/1998:22:33:15 +0000] "GET /images/ligneb01.gif HTTP/1.0"
 304 0
      2 81 - - [30/Apr/1998:22:03:00 +0000] "GET /images/ligneb01.gif HTTP/1.0"
200 169
```

9. Filter all entries (requests) made on 30th April 1998 at 22:53. [10 points]

```
kerry@kerry-VirtualBox:~/Desktop$ grep -E "30/Apr/1998:22:53:00" wc_day6_1.log
137 - - [30/Apr/1998:22:53:00 +0000] "GET /english/images/team_hm_header_shad.gi
f HTTP/1.0" 200 1379
1170 - - [30/Apr/1998:22:53:00 +0000] "GET /images/hm_brdr.gif HTTP/1.0" 200 235
1180 - - [30/Apr/1998:22:53:00 +0000] "GET /english/teams/teambio76.htm HTTP/1.0
" 304 -
1120 - - [30/Apr/1998:22:53:00 +0000] "GET /french/venues/cities/images/lyon/ven
ue_lyon_bg.jpg HTTP/1.0" 200 19013
1142 - - [30/Apr/1998:22:53:00 +0000] "GET /english/teams/teamgroup.htm HTTP/1.0
" 200 11971
1120 - - [30/Apr/1998:22:53:00 +0000] "GET /french/venues/images/venue_header.gi
f HTTP/
kerry@kerry-VirtualBox:~/Desktop$
```

10. Write a command that converts the “The quick brown fox jumps over the lazy dog.” To “quick The brown fox jumps over lazy the dog.”. [10 points]

```
kerry@kerry-VirtualBox:~/Desktop$ echo "The quick brown fox jumps over the lazy
dog" | sed 's/[Tt]he quick[a-z]*/quick The/' | sed  s'/[tT]he lazy[a-z]*/lazy th
e/g'
quick The brown fox jumps over lazy the dog
```

11. In the following sentence add [] around words starting with s and containing e and t in any order “subtle exhibit asset sets tests site”. [10 points]

```
kerry@kerry-VirtualBox:~/Desktop$ echo "subtle exhibit asset set tests site" | s
ed -E 's/\bs\w*(e\w*t|t\w*e)\w*/[&]/g'
[subtle] exhibit asset [set] tests [site]
```

12. Use the sed command to change the following date format from 13/April/2007 to 2007-April-13. (Hint: use the echo command to print the date and then pipe the output to the sed command). [10 points]

```
kerry@kerry-VirtualBox:~/Desktop$ echo "13/April/2007" | sed 's/[/][a-z]*/-/g' |
 sed s'/[1]3[a-z]*/2007/g' | sed 's/\w*$/13/'
2007-April-13
```