

## Instructions

### Prerequisites

Apache-Hadoop  
Gradle

### Steps

- Open the folder path in Terminal/CMD

- `$ gradle clean build`

```
Songmengs-MBP:hip meng$ gradle clean build  
  
> Task :compileJava  
BUILD SUCCESSFUL in 2s
```

- `$ gradle build`  
(build jar file for Hadoop)

```
Songmengs-MBP:hip meng$ gradle build  
  
BUILD SUCCESSFUL in 937ms
```

- `$ hadoop fs -copyFromLocal input/`  
(upload input: copy input images to hadoop user/input/)

```
Songmengs-MBP:hip meng$ hadoop fs -copyFromLocal input/  
2021-05-03 12:28:12,242 WARN util.NativeCodeLoader: Unable to load native-hadoop  
library for your platform... using builtin-java classes where applicable
```

- `$ hadoop jar my-jar/ImageProcessing.jar search/filter inputDir outputDir1 outputDir2`

```
Songmengs-MBP:hip meng$ hadoop jar my-jar/ImageProcessing.jar search input /usr  
/local/Celler/hadoop/hip/output1 /usr/local/Celler/hadoop/hip/output2  
2021-05-03 12:37:55,197 WARN util.NativeCodeLoader: Unable to load native-hadoop
```

(Argument after the jar files: <search/filter> choose the type of image processing  
<inputDir> where you upload input images  
<outputDir1> a path for output 1  
<outputDir2> a path for output 2

! Note ! two output path can't be the same

! Note ! output folder need to be empty

- `$hadoop fs -cat /output/part-r-00000`  
Check the output file part-r-00000  
/output is your customized output path

```
321620523554_.pic.jpg 511
16126618213943649116581815025053939329398283525910373161150508076649152661157349
242084896410200261 540
341620523566_.pic.jpg
34653763431405836162923647675777813546314632167538789362217147917314483649712583
85253366548429158
331620523556_.pic.jpg Documents
23584151068002504673293164816453569724023434694693899641497205143446035072115359
9164849523880262718 Downloads
351620523578_.pic.jpg
96031802369960810547616605010682539701348264145373901587026440899891805471355008
93127116064604
351620523578_.pic_thumb.jpg Private Cloud Files
27143458316875487598322071023590049036384657398326030671078447033192029157046544
098017228717020992312
```

- `$hadoop fs -get /output/part-r-00000 out.txt`  
Get the output text (out.txt)  
/output is your customized output path

```
Songmengs-MBP:hip meng$ hadoop fs -cat /usr/local/Cerller/hadoop/hip/output1/part-r-00000
```

### If you want to insert your own image processing....

Simply replace the `/src/main/java/hip/search/CustomSearch.java` code if it's search based.

replace the `/src/main/java/hip/filter/CustomFilter.java` code if it's a filter.

Then repeat the step as above.