

## Housekeeping

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Problem statement 1: There are times when you wish to use your python code on various platforms, whether it be Google Colab or your local machine. Each of these comes with it's own environment challenges. A consistent environment, methodology, and storage assists with this challenge.

Problem statement 2: There are number of common procedural things that need to be done for each environment you use such as installing packages, or setting a path for utilities to import.

Problem statement 3: When working on a single project, much less multiple concurrent projects, requires a number of data files to be stored and accessed. Assisting with location of storage as well as size of large files is challenge.

Goal: The goal is to simplify and expedite:

1. Startup of a new project and associated workbooks
2. Configure a consistent environment for execution and coding
3. Assist with data management (files, etc)

## ▼ Configuration

```
#Parameters
PROJECT_NAME = 'Jarvis'
ENABLE_COLAB = True

#Root Machine Learning Directory. Projects appear underneath
GOOGLE_DRIVE_MOUNT = '/content/gdrive'
COLAB_ROOT_DIR = GOOGLE_DRIVE_MOUNT + '/MyDrive/Colab Notebooks'
COLAB_INIT_DIR = COLAB_ROOT_DIR + '/utility_files'

LOCAL_ROOT_DIR = '/home/magni/Documents/ML_Projects'
LOCAL_INIT_DIR = LOCAL_ROOT_DIR + '/utility_files'
```

## ▼ Bootstrap Environment

```
#add in support for utility file directory and importing
import sys
import os

if ENABLE_COLAB:
    #Need access to drive
```

```

from google.colab import drive
drive.mount(GOOGLE_DRIVE_MOUNT, force_remount=True)

#add in utility directory to syspath to import
INIT_DIR = COLAB_INIT_DIR
sys.path.append(os.path.abspath(INIT_DIR))

#Config environment variables
ROOT_DIR = COLAB_ROOT_DIR

else:
    #add in utility directory to syspath to import
    INIT_DIR = LOCAL_INIT_DIR
    sys.path.append(os.path.abspath(INIT_DIR))

    #Config environment variables
    ROOT_DIR = LOCAL_ROOT_DIR

#Import Utility Support
from jarvis import Jarvis
jarvis = Jarvis(ROOT_DIR, PROJECT_NAME)

import mv_python_utils as mvutils

Mounted at /content/gdrive
Wha...where am I?
I am awake now.

I have set your current working directory to /content/gdrive/MyDrive/Colab Notebooks/Jar
The current time is 12:57
Hello sir. Extra caffeine may help.

```



## ▼ Explore

```

#Added this in to force a stop in case of "run all"
print stop here #should throw error

```

File "[<ipython-input-3-367417f7c48e>](#)", line 2

```

    print stop here #should throw error
      ^

```

**SyntaxError:** Missing parentheses in call to 'print'. Did you mean print(stop here #should throw error)?

SEARCH STACK OVERFLOW

```

jarvis.whattimeisit()

```

The current time is 12:57

```
jarvis.showenvironment()
```

```
I am inspecting the local environment...
Your environment has been configured:
PROJECT_NAME:      Jarvis
ROOT_DIR:  /content/gdrive/MyDrive/Colab Notebooks
WORKING_DIR:  /content/gdrive/MyDrive/Colab Notebooks/Jarvis

ROOT_DATA_DIR:  /content/gdrive/MyDrive/Colab Notebooks
DATA_DIR:       /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis
DATA_DIR_ORIG: /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis/01_original
DATA_DIR_WORK: /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis/02_working
DATA_DIR_TRAIN: /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis/03_train
DATA_DIR_TEST: /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis/04_test

UTILITY_DIR:  /content/gdrive/MyDrive/Colab Notebooks/utility_files
```

```
jarvis.displayProjects()
```

```
Project listing:
--> Helpful_Notebooks
--> Jarvis
--> ML1000
--> ML1010-Group-Project
--> ML1010_Ind_Project
--> ML1010_Weekly
--> New folder
--> data
--> utility_files
```

#By default shows all working (non-data) files for current project

```
jarvis.showProjectWorkFiles()
```

```
Here are all your project work files
[D] /content/gdrive/MyDrive/Colab Notebooks/Jarvis
---[ipynb]-----> Housekeeping_test.ipynb (15.18 KB)
```

```
jarvis.showAllDataFiles()
```

```
Here are all your available data files
[D] /content/gdrive/MyDrive/Colab Notebooks/data
-----> ** No files **

[D] /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis
---[  gz][  pk1]--> 02_NLP_ReviewTextData.pk1.gz (30.08 MB)
---[  gz][  pk1]--> 02_NLP_SummaryData.pk1.gz (2.88 MB)

[D] /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis/01_original
-----> ** No files **
```

```
[D] /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis/02_working
----->** No files **

[D] /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis/03_train
----->** No files **

[D] /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis/04_test
----->** No files **

[D] /content/gdrive/MyDrive/Colab Notebooks/data/ML1010-Group-Project
----->** No files **

[D] /content/gdrive/MyDrive/Colab Notebooks/data/ML1010-Group-Project/01_original
---[  gz][ json]--> Cell_Phones_and_Accessories_5.json.gz (161.24 MB)
---[  gz][ json]--> meta_Cell_Phones_and_Accessories.json.gz (343.33 MB)

[D] /content/gdrive/MyDrive/Colab Notebooks/data/ML1010-Group-Project/02_working
[*][  pk1]-----> 02_Cellphone.pk1 (46.32 MB)
[*][  pk1]-----> 02_NLP_ReviewTextData.pk1 (87.00 MB)
[*][  pk1]-----> 02_NLP_SummaryData.pk1 (8.32 MB)
[*][  pk1]-----> 02_NLP_TitleData.pk1 (16.71 MB)

[D] /content/gdrive/MyDrive/Colab Notebooks/data/ML1010-Group-Project/03_train
----->** No files **

[D] /content/gdrive/MyDrive/Colab Notebooks/data/ML1010-Group-Project/04_test
----->** No files **

[D] /content/gdrive/MyDrive/Colab Notebooks/data/ML1010_Weekly
---[  gz][  csv]--> complaints.csv.gz (370.67 MB)
[*][  csv]-----> movie_reviews_cleaned.csv (38.37 MB)
---[  gz][  tsv]--> rspct.tsv.gz (347.13 MB)
---[  gz][  csv]--> subreddit_info.csv.gz (37.80 KB)

[D] /content/gdrive/MyDrive/Colab Notebooks/data/ML1010_Weekly/01_original
----->** No files **

[D] /content/gdrive/MyDrive/Colab Notebooks/data/ML1010_Weekly/02_working
----->** No files **

[D] /content/gdrive/MyDrive/Colab Notebooks/data/ML1010_Weekly/03_train
----->** No files **

[D] /content/gdrive/MyDrive/Colab Notebooks/data/ML1010_Weekly/04_test
----->** No files **

[D] /content/gdrive/MyDrive/Colab Notebooks/data/test compress
```

#By default shows all files in projects data folder  
 jarvis.showProjectDataFiles()

Here are all your project data files

```
[D] /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis
---[  gz][  pk1]--> 02_NLP_ReviewTextData.pk1.gz (30.08 MB)
---[  gz][  pk1]--> 02_NLP_SummaryData.pk1.gz (2.88 MB)
```

```
[D] /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis/01_original
----->** No files **

[D] /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis/02_working
----->** No files **

[D] /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis/03_train
----->** No files **

[D] /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis/04_test
----->** No files **
```

```
#By default does your current project and keeps source files
jarvis.compressProjectDataFiles()
```

```
Scanning [/content/gdrive/MyDrive/Colab Notebooks/data/Jarvis] for data files to compress
```

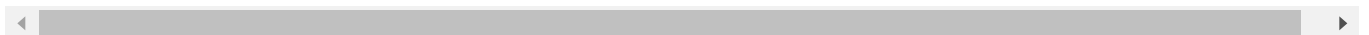
```
[D] /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis
---[  gz][  pk1]--> 02_NLP_ReviewTextData.pk1.gz (30.08 MB)
---[  gz][  pk1]--> 02_NLP_SummaryData.pk1.gz (2.88 MB)

[D] /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis/01_original
----->** No files **

[D] /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis/02_working
----->** No files **

[D] /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis/03_train
----->** No files **

[D] /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis/04_test
----->** No files **
```



```
#Will re-compress and overwrite compressed file if present, removeOriginal=True
#deletes the original unzipped file
jarvis.compressProjectDataFiles(removeOriginal=True)
```

```
Scanning [/content/gdrive/MyDrive/Colab Notebooks/data/Jarvis] for data files to compress
```

```
[D] /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis
---[  gz][  pk1]--> 02_NLP_ReviewTextData.pk1.gz (30.08 MB)
---[  gz][  pk1]--> 02_NLP_SummaryData.pk1.gz (2.88 MB)

[D] /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis/01_original
----->** No files **

[D] /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis/02_working
----->** No files **

[D] /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis/03_train
```

```
----->** No files **
```

```
[D] /content/gdrive/MyDrive/Colab Notebooks/data/Jarvis/04_test
```

```
----->** No files **
```



```
jarvis.getPackageVersion('tensorflow')
```

```
tensorflow version: tensorflow 2.7.0
```

---

✓ 0s completed at 12:58 PM

