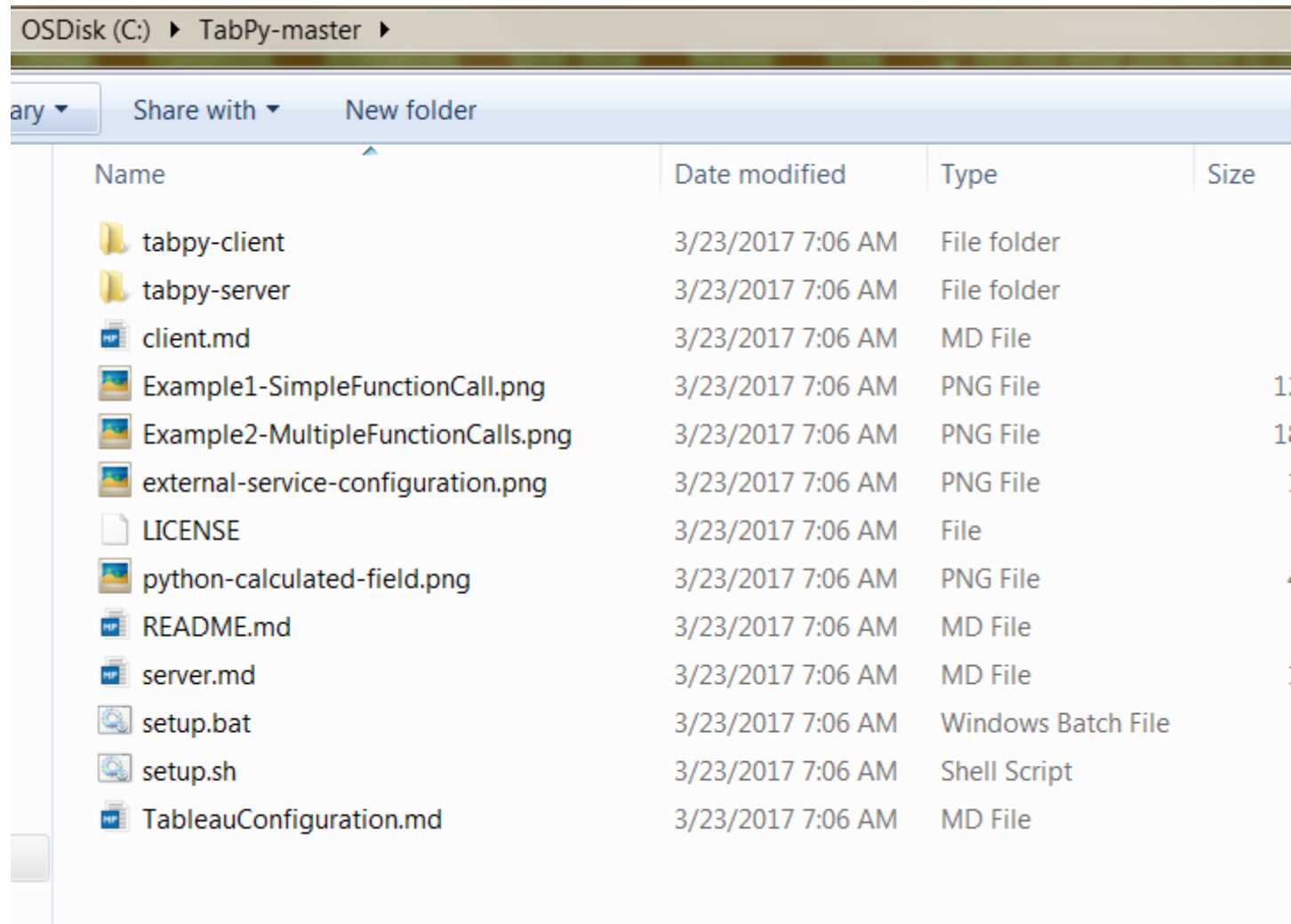


## Python and Tableau Integrations Steps:

### Extract TabPy-master.zip

- Within the TabPy-master directory, execute setup.bat (or setup.sh if you are on Mac).
- This script downloads and installs Python, TabPy and all necessary dependencies.
- After completion, TabPy starts up and listens on port 9004.

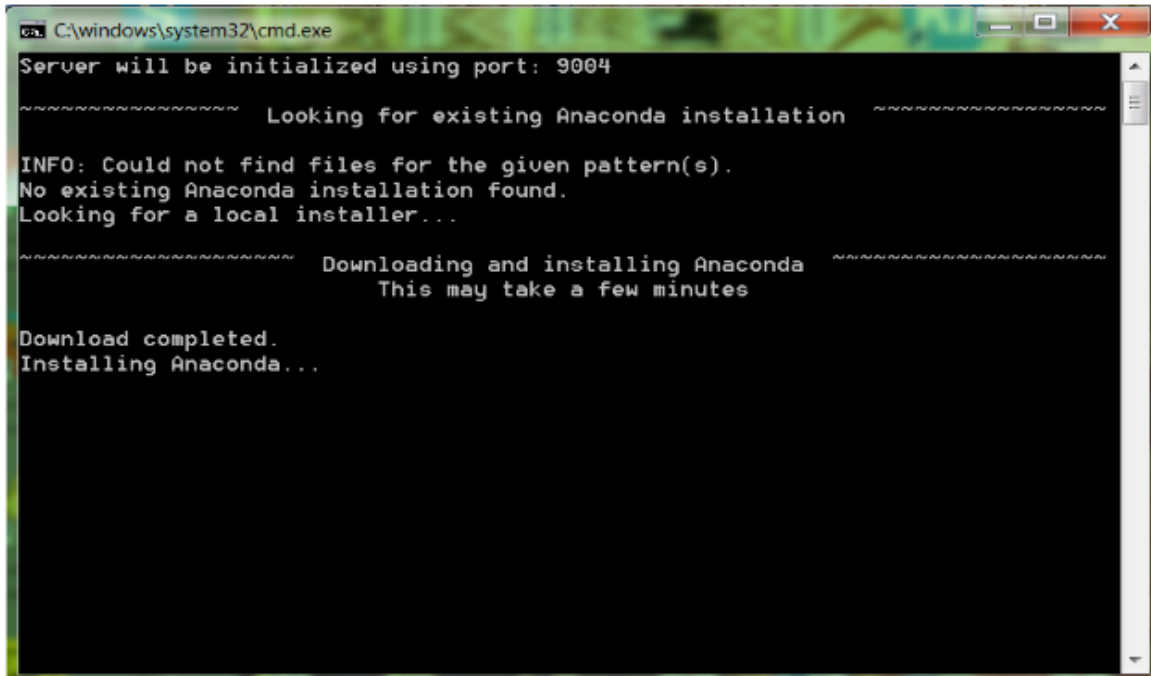


| Name                               | Date modified     | Type               | Size  |
|------------------------------------|-------------------|--------------------|-------|
| tabpy-client                       | 3/23/2017 7:06 AM | File folder        |       |
| tabpy-server                       | 3/23/2017 7:06 AM | File folder        |       |
| client.md                          | 3/23/2017 7:06 AM | MD File            |       |
| Example1-SimpleFunctionCall.png    | 3/23/2017 7:06 AM | PNG File           | 11 KB |
| Example2-MultipleFunctionCalls.png | 3/23/2017 7:06 AM | PNG File           | 11 KB |
| external-service-configuration.png | 3/23/2017 7:06 AM | PNG File           | 11 KB |
| LICENSE                            | 3/23/2017 7:06 AM | File               |       |
| python-calculated-field.png        | 3/23/2017 7:06 AM | PNG File           | 4 KB  |
| README.md                          | 3/23/2017 7:06 AM | MD File            |       |
| server.md                          | 3/23/2017 7:06 AM | MD File            |       |
| setup.bat                          | 3/23/2017 7:06 AM | Windows Batch File |       |
| setup.sh                           | 3/23/2017 7:06 AM | Shell Script       |       |
| TableauConfiguration.md            | 3/23/2017 7:06 AM | MD File            |       |

**Installation :** TabPy installation takes a while and many time you're not successful on your first try. Key Points that needs to be taken care :

- You have Python 3.0 and not the required Python 2.7.
- You might have both versions, but your primary is the 3.0 version.

- When you run the python tableau server set up file for the first time , it shows the message installing Anaconda ( even if Anaconda is there ).
- Sometimes It may take more than hour to get the final confirmation message

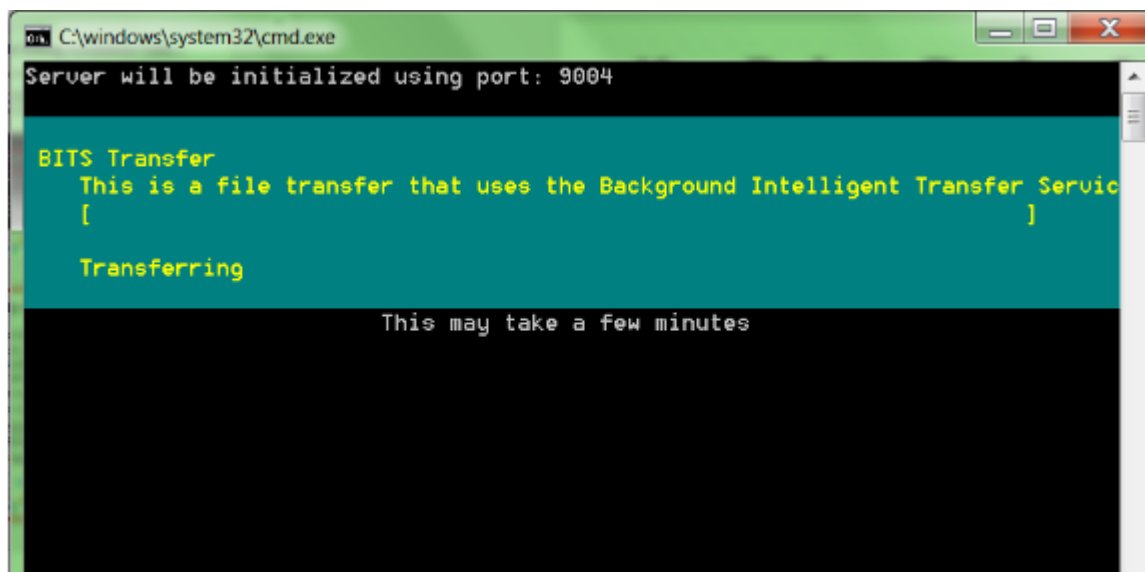


```
C:\windows\system32\cmd.exe
Server will be initialized using port: 9004

=====
Looking for existing Anaconda installation
=====
INFO: Could not find files for the given pattern(s).
No existing Anaconda installation found.
Looking for a local installer...

=====
Downloading and installing Anaconda
This may take a few minutes
=====
Download completed.
Installing Anaconda...
```

you may also get the below even if you have python installed. Have patience, let it keep running. (can take hours. If it get closed run it again, till you get success message). You can get error, but run the setup file again, till finally it gets installed ( Couple of Try running the setup file ,does the trick )



```
C:\windows\system32\cmd.exe
Server will be initialized using port: 9004

BITS Transfer
This is a file transfer that uses the Background Intelligent Transfer Service
[
]

Transferring

This may take a few minutes
```

- When you get the below message it means the python server is successfully installed and running fine .
- Also Note the path ( highlighted in red below ) for starting python server next time or else you will keep doing the same process again and again

```

Installation complete

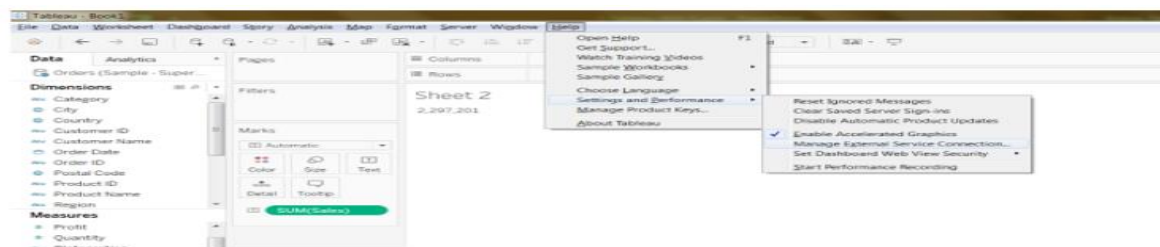
From now on, you can start the server by running C:\Users\... \Anaconda\envs\
\Tableau-Python-Server\Lib\site-packages\tabby_server\startup.bat

Starting the server for the first time...

1 file(s) copied.
Initializing TabPy...
Done initializing TabPy.
Web service listening on port 9004

```

Configure a TabPy Connection on Tableau On the Help menu in Tableau Desktop choose Settings and Performance > Manage External Service Connection to open the TabPy connection dialog box.

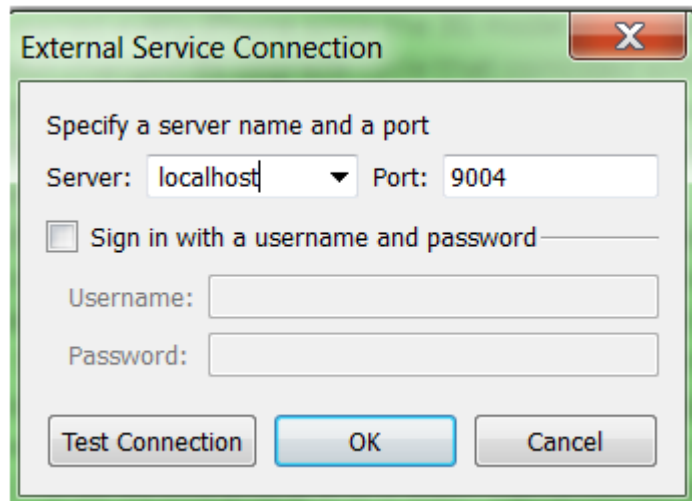


Enter or select a server name using a domain or an IP address.

The drop-down list includes localhost and the server you most recently connected to.

Specify a port. Port 9004 is the default port for TabPy servers.

Click Test Connection.



### Sheet 1 – Coloring the profit

1. Category and subcategory in row field
2. Add sum(profit) to the text
3. Add the calculated field variable (python\_tab) to color  
SCRIPT\_BOOL("

```
lst= []
```

```
for i in _arg1 :
```

```
    lst.append(i>0)
```

```
return lst
```

```
",  
SUM([Profit])
```

```
)
```

### Sheet 2 – correlation with profit and sales

1. Add category and sum(profit) in row
2. Add sub\_category and sum(sales) in column
3. Go to showme button and change visualization in table form
4. Add calculated field variable in to color ( corr)  
SCRIPT\_REAL("

```
import numpy as np
```

```
return np.corrcoef(_arg1,_arg2)[0,1]",
```

```
SUM([Sales]),sum([Profit])
```

```
)
```

**Exercise: 2.6.2020 (online mode)**

**Go through the below given link and implement the same and Upload the output in Moodle**

<https://medium.com/@vishal152715/python-tableau-integration-9139bcadaf5>

<https://towardsdatascience.com/forecasting-with-python-and-tableau-dd37a218a1e5>