Part 2 : Installing and Configuring TabPy Server and Client

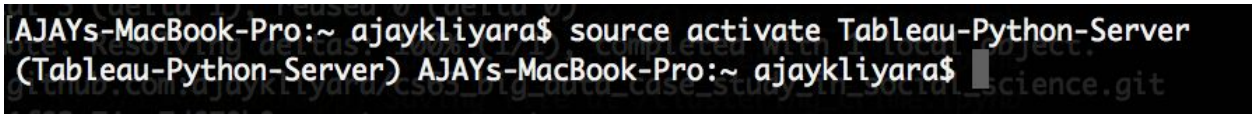
The primary objective of this section is to **Install and Configure TabPy** Server and Client. This module is required to deploy the predictive model to be used later by Tableau. It provides an REST api which can also be used outside of Tableau.

Official documentation for installing TabPy can be found here.

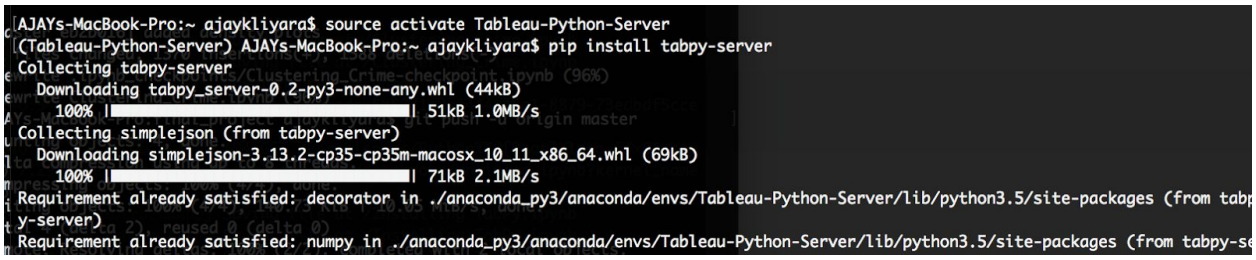
The steps involved are as follows,

1. Create a conda virtual environment for TabPy

2. Activate the virtual environment



3. Install TabPy Server



4. In the installation log the path to ‘site-packages’ can be found.

```
Collecting Tornado-JSON (from tabpy-server)
  Downloading Tornado_JSON-1.3.2-py3-none-any.whl
Requirement already satisfied: six>=1.5 in ./anaconda_py3/anaconda/envs/Tableau-Python-Server/lib/python3.5/site-packages (from pytho
n-dateutil->tabpy-server)
Building wheels for collected packages: futures, genson, future
  Running setup.py bdist_wheel for futures ... done
  Stored in directory: /Users/ajaykliyara/Library/Caches/pip/wheels/ad/79/48/b32521764d59b16fd1bc0ffd5862f6d3bf770c7d73ea1fb12a
  Running setup.py bdist_wheel for genson ... done
  Stored in directory: /Users/ajaykliyara/Library/Caches/pip/wheels/cf/1b/96/7b7cf6dacf8786020aabfc3cc0a600bebef2c38df2467c5e03
```

5. Now go into the site-package folder and followed by tabpy folder

```
(Tableau-Python-Server) AJAYs-MacBook-Pro:~ ajaykliyara$ cd ./anaconda_py3/anaconda/envs/Tableau-Python-Server/lib/python3.5/site-pac
kages
```

```
-bash: cd: ./anaconda_py3/anaconda/envs/Tableau-Python-Server/lib/python3.5/site-packages/tabpy_server: No such f
(Tableau-Python-Server) AJAYs-MacBook-Pro:site-packages ajaykliyara$ cd tabpy_server
(Tableau-Python-Server) AJAYs-MacBook-Pro:tabpy_server ajaykliyara$ ls
__pycache__     management      startup.bat     startup.sh      static
common          psws            startup.py      state.ini.template  tabpy.py
(Tableau-Python-Server) AJAYs-MacBook-Pro:tabpy_server ajaykliyara$
```

6. Install TabPy client

```
AJAYs-MacBook-Pro:final_project ajaykliyara$ pip install tabpy-client
Collecting tabpy-client
  Using cached tabpy_client-0.2-py3-none-any.whl
Requirement already satisfied: jsonschema in /Users/ajaykliyara/anaconda_py3/ana
conda/lib/python3.5/site-packages (from tabpy-client)
Requirement already satisfied: python-dateutil in /Users/ajaykliyara/anaconda_py
3/anaconda/lib/python3.5/site-packages (from tabpy-client)
Collecting genson (from tabpy-client)
Requirement already satisfied: cloudpickle in /Users/ajaykliyara/anaconda_py3/an
aconda/lib/python3.5/site-packages (from tabpy-client)
Requirement already satisfied: decorator in /Users/ajaykliyara/anaconda_py3/anac
onda/lib/python3.5/site-packages (from tabpy-client)
Requirement already satisfied: requests in /Users/ajaykliyara/anaconda_py3/anaco
nda/lib/python3.5/site-packages (from tabpy-client)
Requirement already satisfied: six>=1.5 in /Users/ajaykliyara/anaconda_py3/anaco
nda/lib/python3.5/site-packages (from python-dateutil->tabpy-client)
Installing collected packages: genson, tabpy-client
Successfully installed genson-0.2.3 tabpy-client-0.2
AJAYs-MacBook-Pro:final_project ajaykliyara$
```

7. Now run shell script startup.sh to start the server

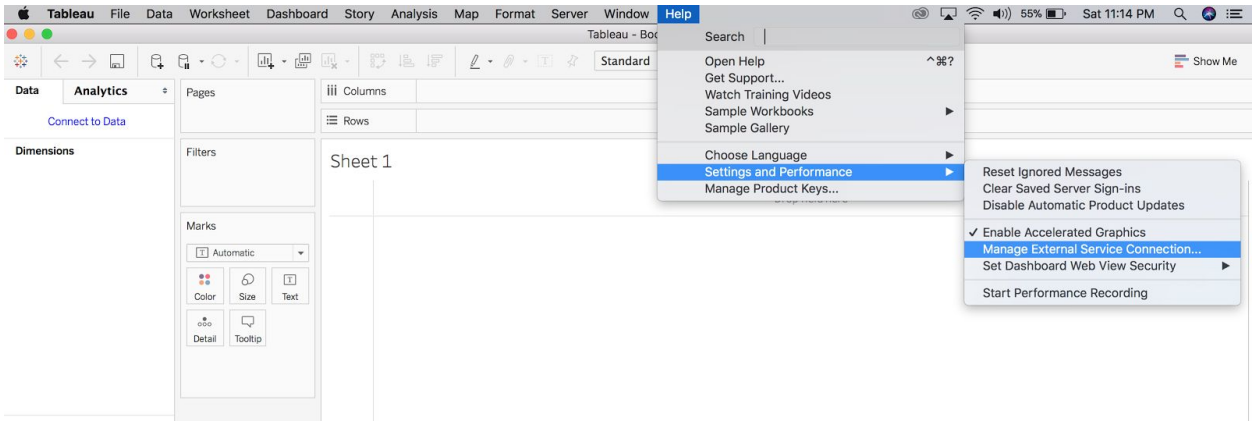
```
(Tableau-Python-Server) AJAYs-MacBook-Pro:tabpy_server ajaykliyara$ sh startup.sh
Using initial state.ini
Initializing TabPy...
Done initializing TabPy.
Web service listening on port 9004
```

8. TabPy Server run on port 9004 and can be accessed through http://localhost/9004

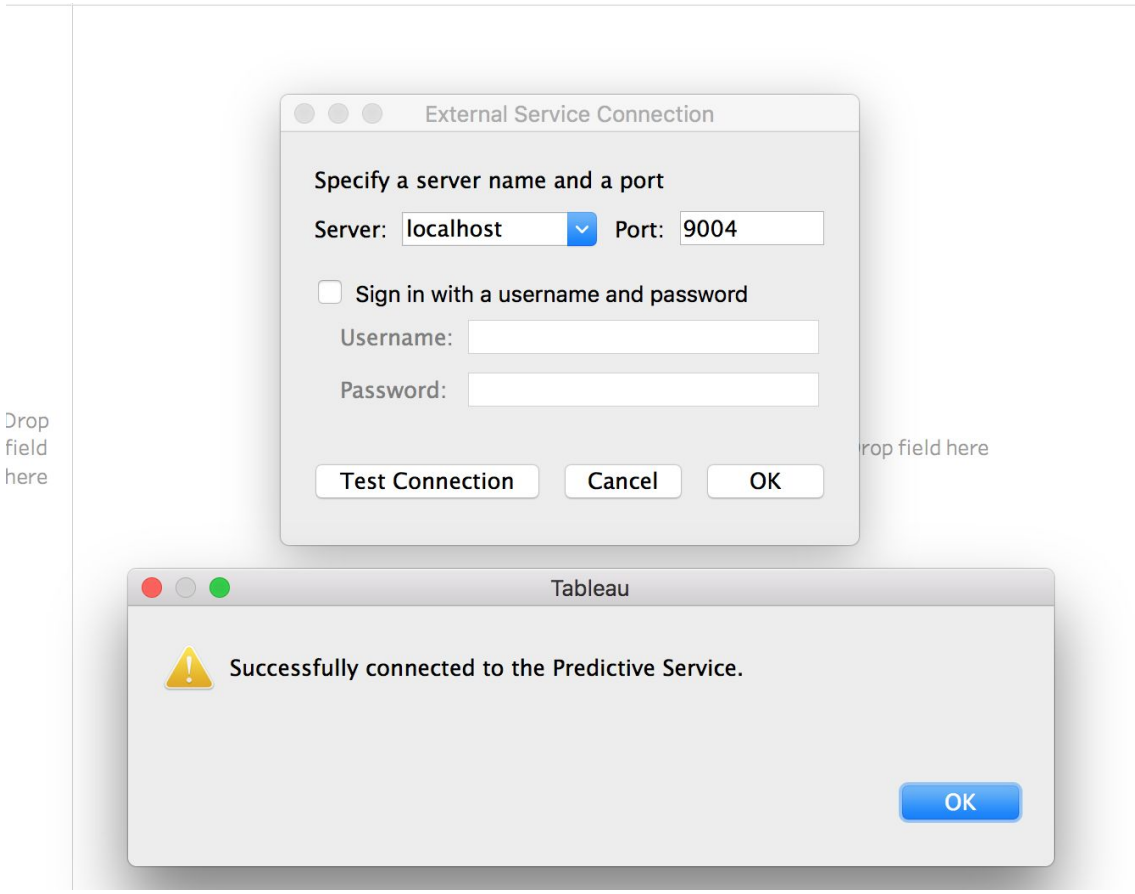
Testing Tableau Connection with TabPy Server

1. Install Tableau Desktop. Installing tableau is straightforward. Please note it involves license costs. But has a trial period of 15 days.

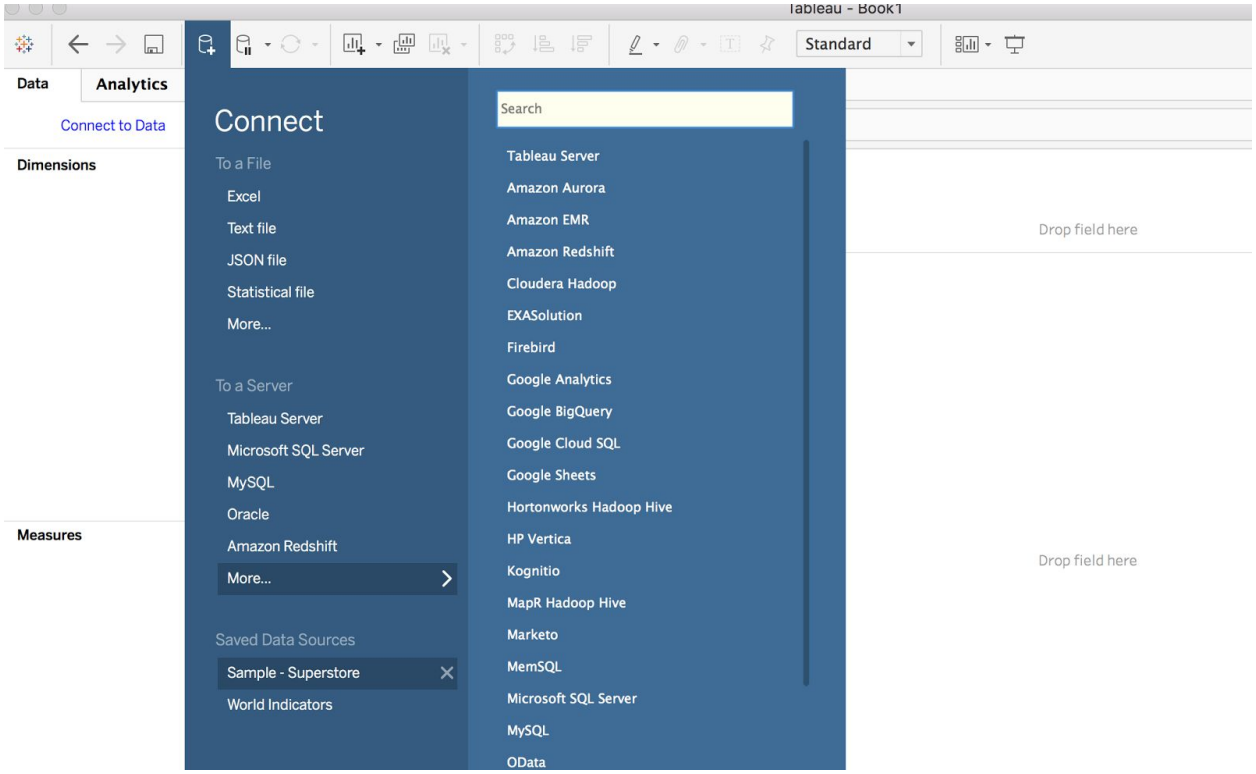
2. Open up tableau and connect to TabPy Server



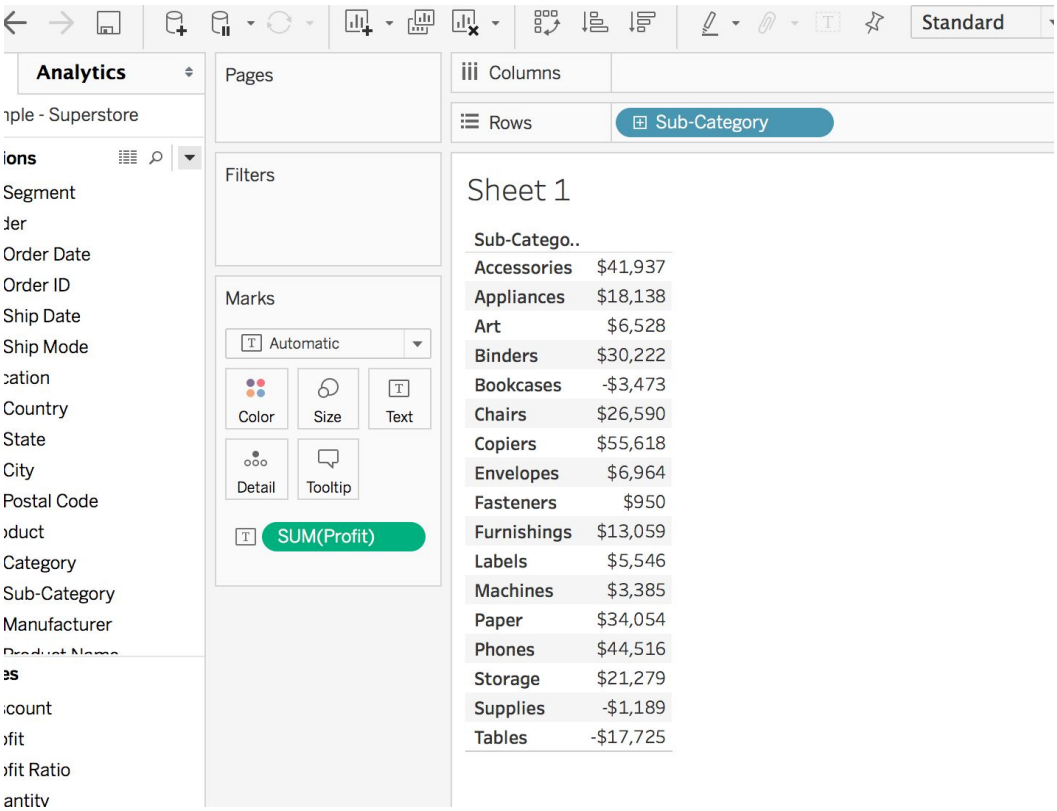
3. Given in connection details and test connection.



4. Connect to sample data source ‘superstore’ that comes with Tableau Desktop

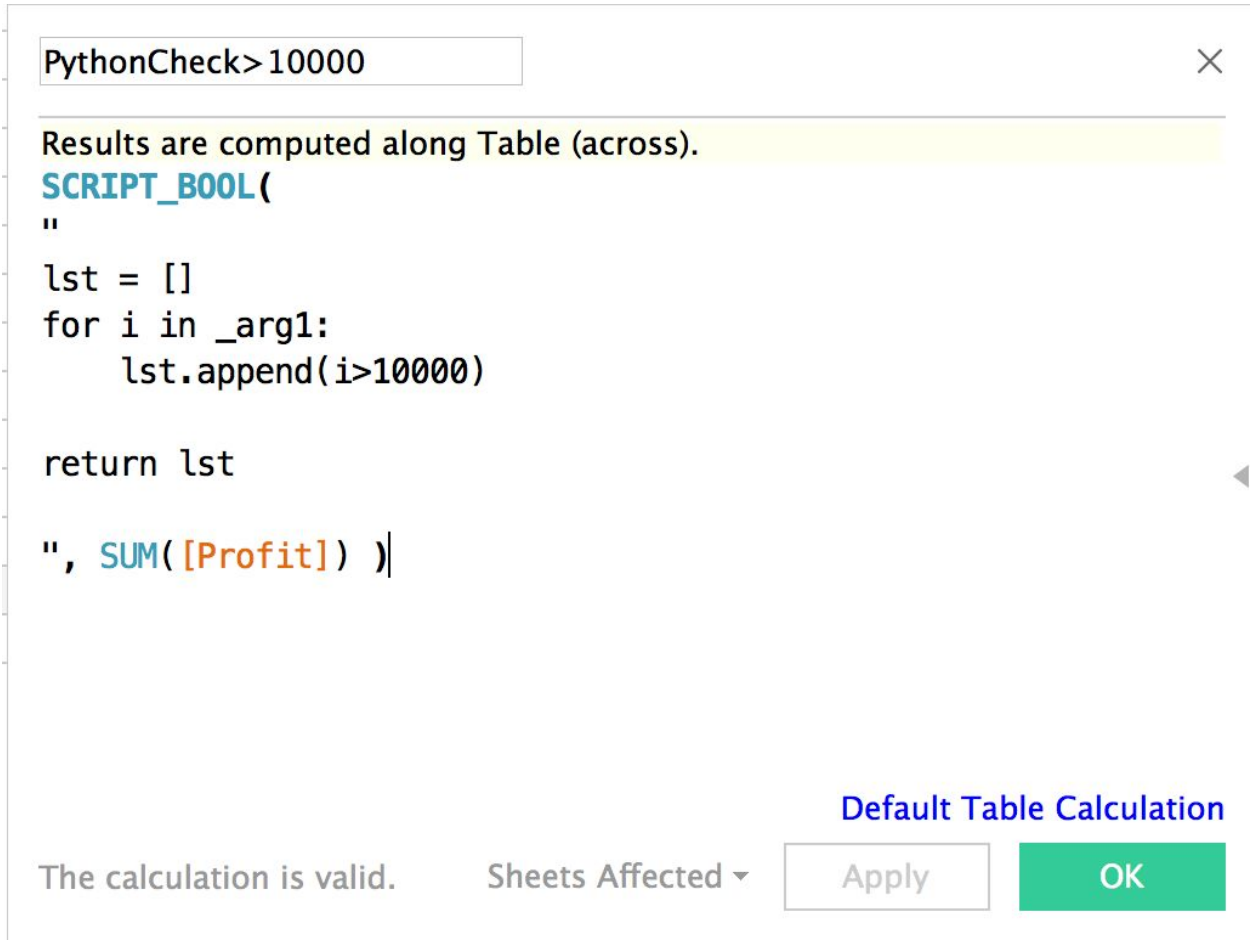


5. Create a simple Report by dragging couple of attributes using sub-category, profit.

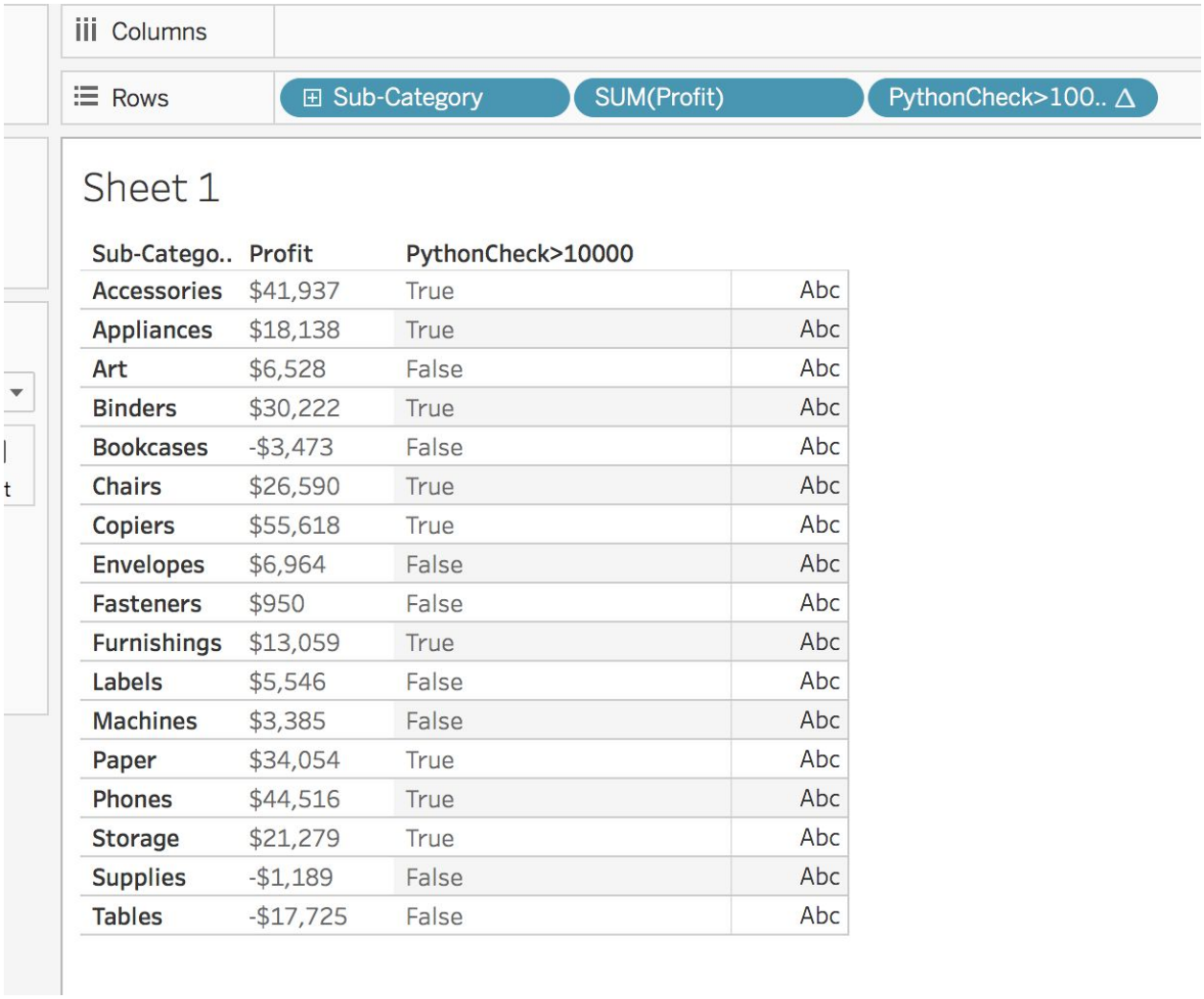


6. Now create a calculated field, it basically check if profit is greater than 10K or not in python and returns list of boolean

.



7. Now add this calculated field. It is clear that boolean value are calculated correctly.



Thus it is verified that Tableau is able to connect to TabPy server.