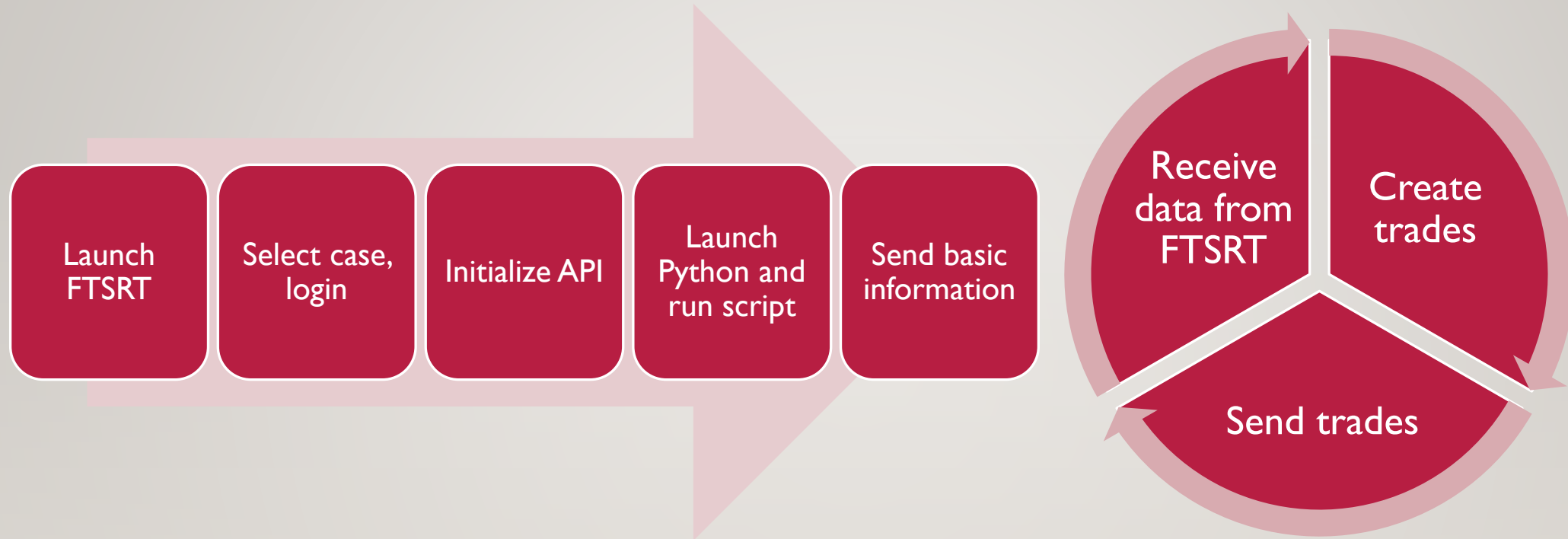


FTS REAL TIME: PYTHON SOCKET API

- What is it:
 - Real time connection between your Python script and the Real Time FTS Client (FTSRT)
 - Receive data updates from FTSRT at a frequency you specify
 - Save data, merge with external data sources, submit trade orders
- How does it work:
 - Login to FTSRT
 - Initialize the API
 - Launch your Python script
 - Our samples show you how to connect to FTSRT



LAUNCH FTSRT: FROM THE FTS SYSTEM MANAGER

FTS System Manager

User Tips Moderators Options Help

FTS System Manager

Student Applications Moderator Applications

Student Applications

--- FTS RT Client (2020 Version) ▾

Download again before running

Run Selected Application

Configuration information received

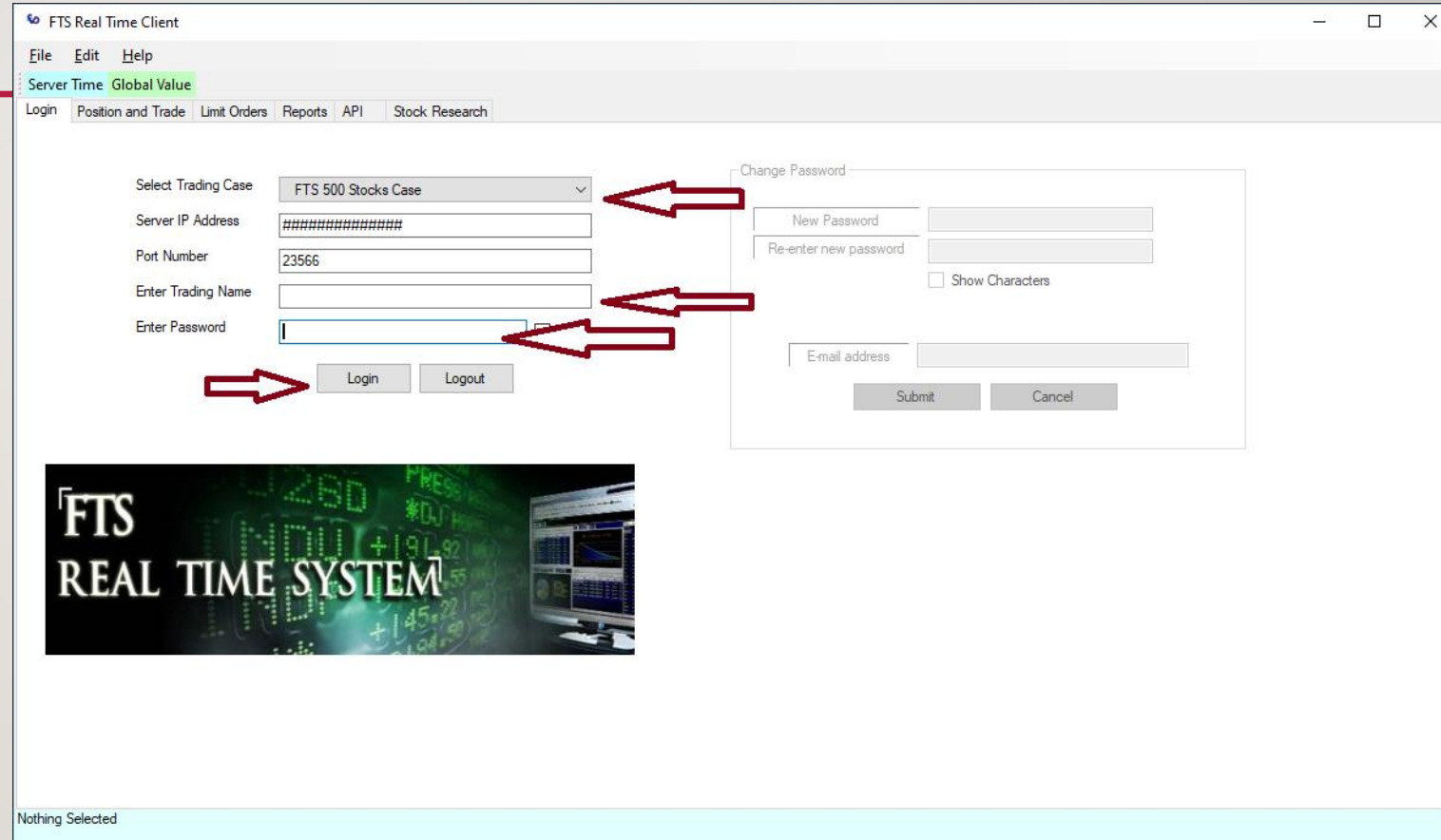
FTS Real Time Client with Socket Python Interface, Financial Ratios

Back Forward Refresh Stop ▾

- **Instructors/Moderators**
 - Contact us to set up trading names and passwords for your students
 - You have to select which cases you want to use.
 - The available cases are [listed here](#).
 - [FTS Real Time Teaching Guide](#). This also includes a description of the student projects.
 - [Guide to Features](#) of the FTS Real Time Client
 - [Video Guide to the FTS Real Time Client](#)
- **Students**
 - Instructor assigns you the trading case, trading name, and password
 - Select the "FTS Real Time Client" in the dropdown menu to the left, then click "Run Selected Application"
 - Select the trading, enter your trading name and password, and click Login
 - [Quick Guide to Features](#) of the FTS Real Time Client
 - [Excel Interface](#)
 - [Python Interface](#)
 - [The FTS Real Time Projects](#)
 - The [Mobile, Mac and Windows Version of the FTS Real Time Trader](#)

LOGIN TO RTFTS

- Select your trading case
- Enter trading name, password
- Login



The screenshot shows the 'FTS Real Time Client' window. The 'Login' tab is active. The form contains the following fields and controls:

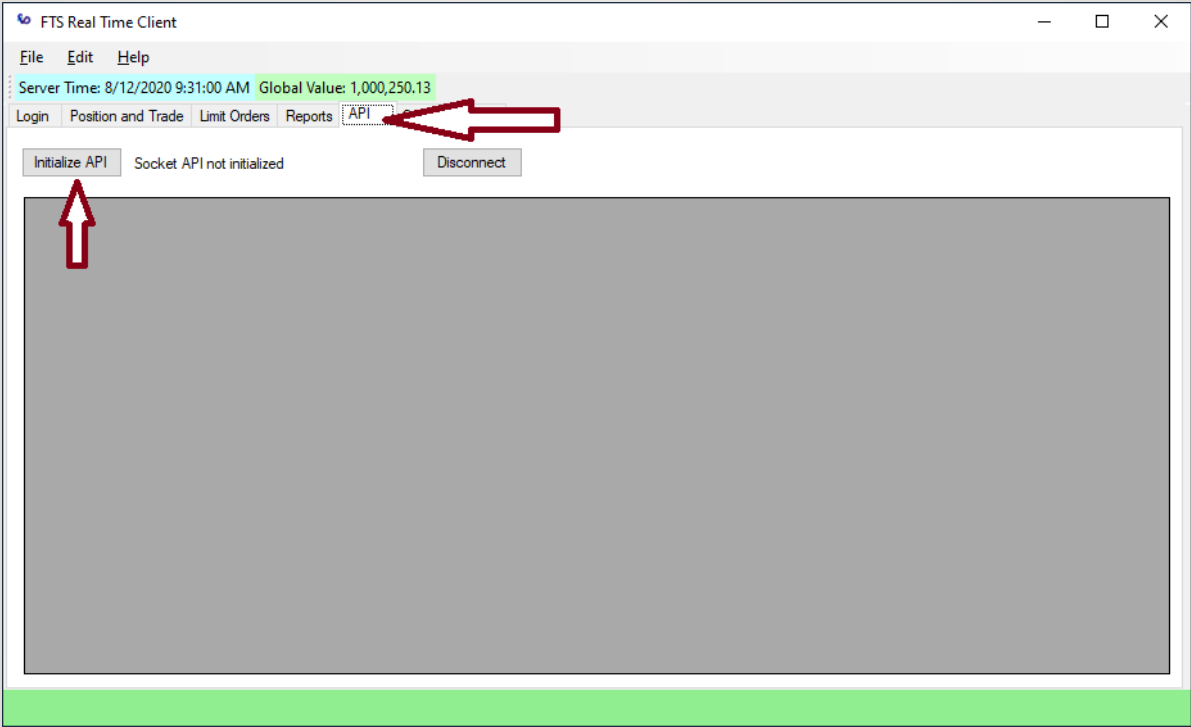
- Select Trading Case:** A dropdown menu currently showing 'FTS 500 Stocks Case'. A red arrow points to this dropdown.
- Server IP Address:** A text box containing '#####'.
- Port Number:** A text box containing '23566'.
- Enter Trading Name:** An empty text box. A red arrow points to this field.
- Enter Password:** A password input field with a masked character. A red arrow points to this field.
- Login/Logout Buttons:** Two buttons at the bottom. A red arrow points to the 'Login' button.

On the right side, there is a 'Change Password' dialog box with the following fields:

- New Password:** A text box.
- Re-enter new password:** A text box.
- Show Characters:** A checkbox.
- E-mail address:** A text box.
- Submit/Cancel Buttons:** Two buttons at the bottom.

At the bottom of the window, there is a banner for 'FTS REAL TIME SYSTEM' with a background of green digital data and a computer monitor. The status bar at the very bottom reads 'Nothing Selected'.

INITIALIZE API FROM THE API TAB



LAUNCH YOUR PYTHON SCRIPT

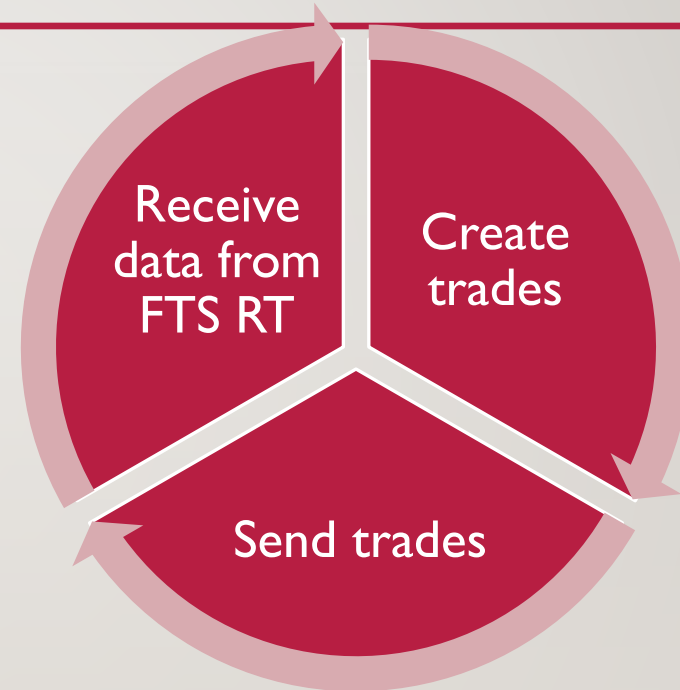
- Run Python and launch your script
- The script must have the socket connection as demonstrated in this sample file
- http://www.ftsmmodules.com//public/modules/ftsRT/RT2020/Scripts/ConstantMix_RTSocket.py.txt
- To start, just run the sample file and you will see how it works

THE SAMPLE PY SCRIPT

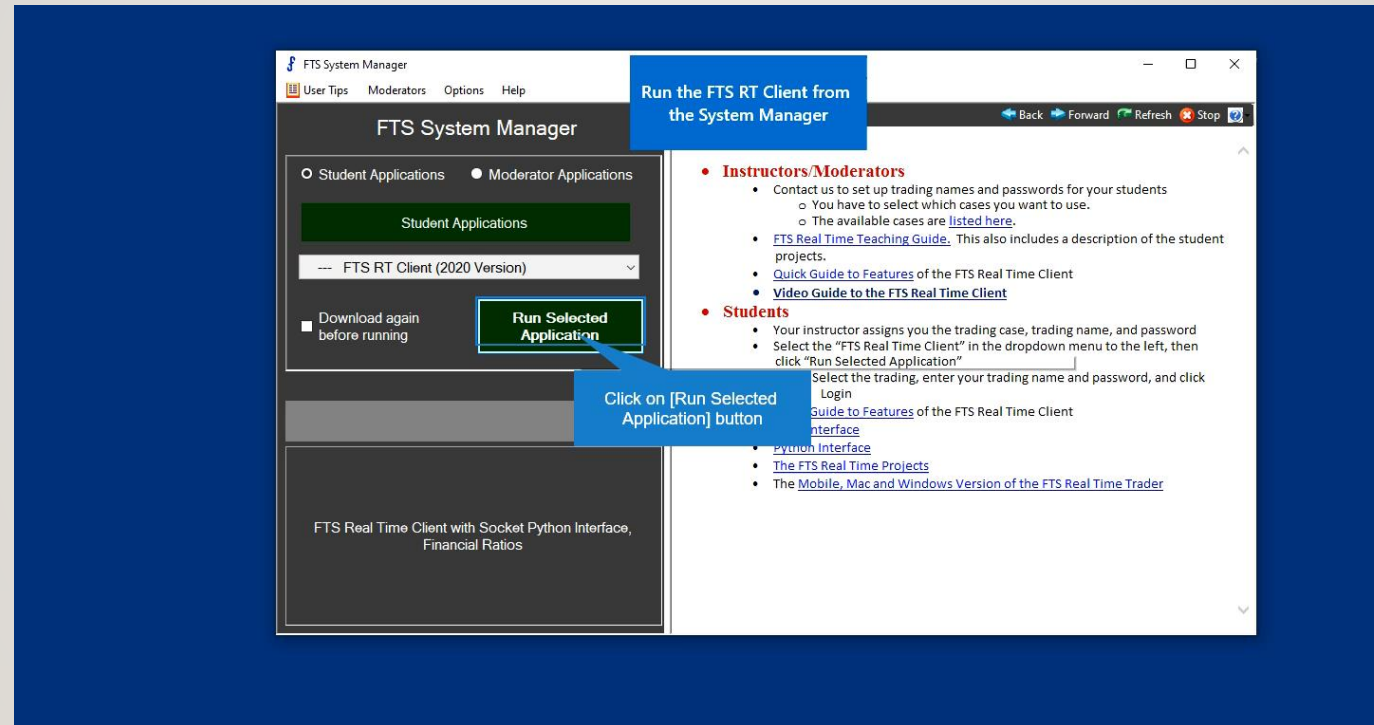
- This has several parts and functions defined
 - Keep the script exactly as is, the **only thing** you should replace is the **constant_mix** function and where it is called in the “while True” part at the bottom
 - The comments explain how the strategy works
- How it works:
 - When you launch the script, it connects FTSRT through a socket
 - The script then sends the tickers and the frequency at which you will receive updates

THE PY FILE

- It then loops:
 - Receive data from the FTS RT Client
 - Construct the trading strategy
 - Send the trades



VIDEO SHOWING THE STEPS WITH THE SAMPLE SCRIPT



<http://www.ftsmo.dules.com//public/modules/ftsRT/RT2020/Scripts/ftsRTPython.mp4>