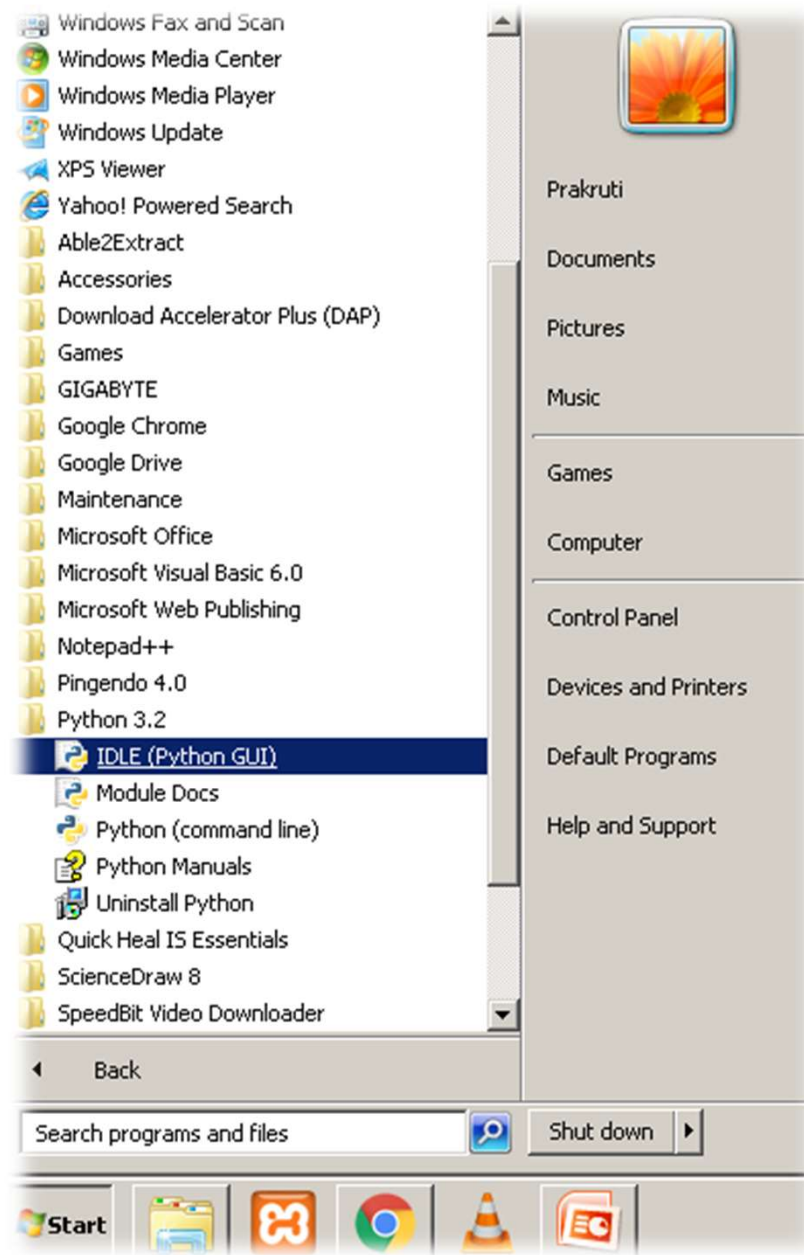




Demo on Python Editors



PYTHON INTRACTI VE MODE PYTHON IDLE



PYTHON SHELL

What is Shell?

A shell is usually an "interactive shell", usually termed a REPL which stands for "Read - Execute - Print - Loop". Most interpreted languages offer a REPL interface - whether it's LISP, python, BASIC or Javascript or even DOS batch language or Unix Shells. The interpreter is what actually executes the lines of code.

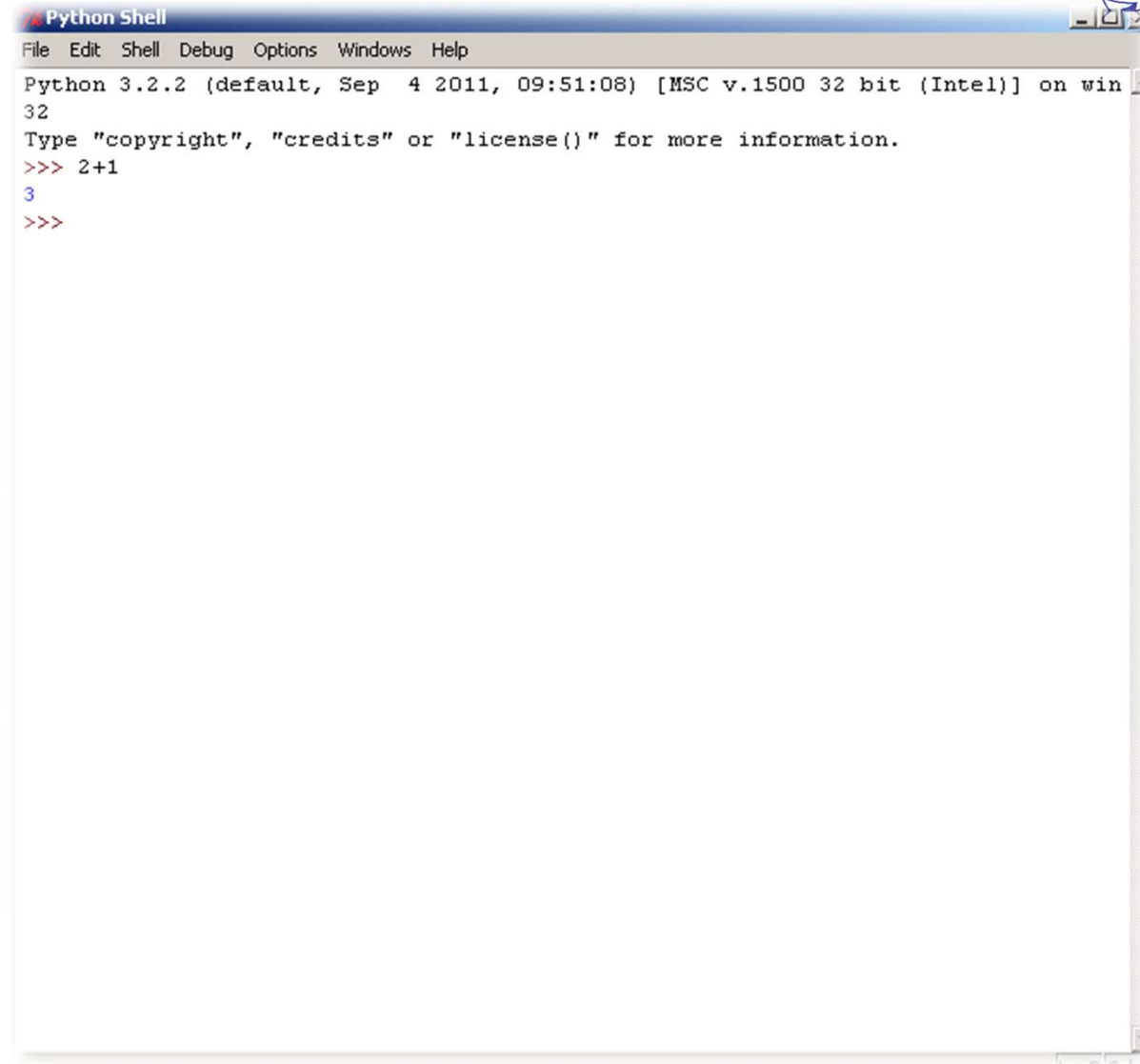
PYTHON SHELL



What is Python Shell or Python Interactive Shell?

The Python interpreter can be used from an interactive shell. The interactive shell is also interactive in the way that it stands between the commands or actions and their execution. ... Python offers a comfortable command line interface with the Python shell, which is also known as the "Python interactive shell".

PYTHON SHELL IDLE

A screenshot of the Python Shell window. The title bar reads 'Python Shell'. The menu bar includes 'File', 'Edit', 'Shell', 'Debug', 'Options', 'Windows', and 'Help'. The main text area shows the following content:

```
Python 3.2.2 (default, Sep  4 2011, 09:51:08) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> 2+1
3
>>>
```

PYTHON BASIC MODES



What are the basic modes of python?

Python has two basic modes:

- 1) Script and
- 2) Interactive.

PYTHON BASIC MODES



1) Script Mode:

The normal mode is the mode where the scripted and finished .py files are run in the Python interpreter.

PYTHON BASIC MODES



2) Interactive Mode:

Interactive mode is a command line shell which gives immediate feedback for each statement, while running previously fed statements in active memory.

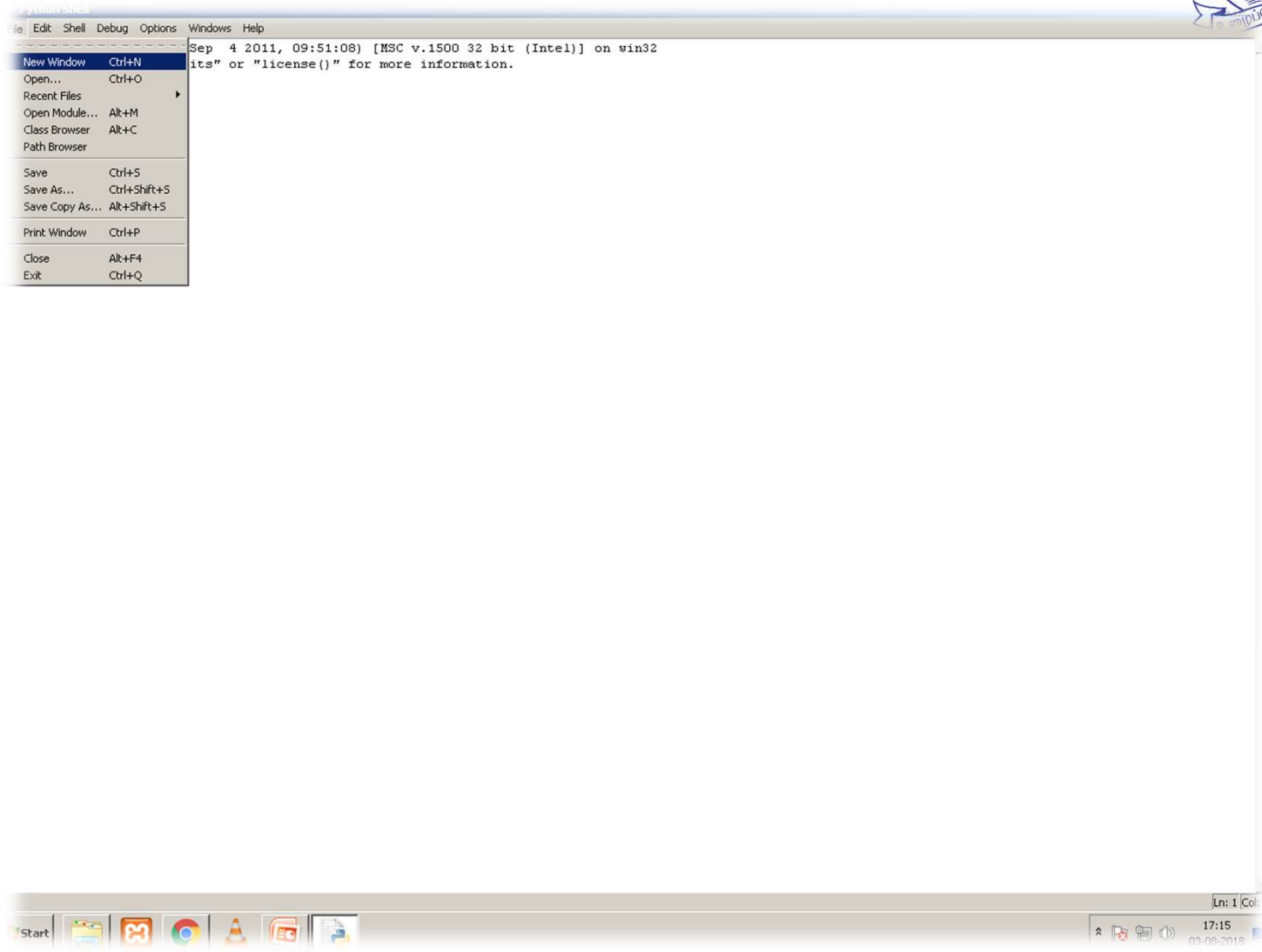


SCRIPT

What is Script?

Scripts are reusable. Basically, a script is a text file containing the statements that comprise a Python program. Once you have created the script, you can execute it over and over without having to retype it each time. Scripts are editable.

INVOKING SCRIPT MODE



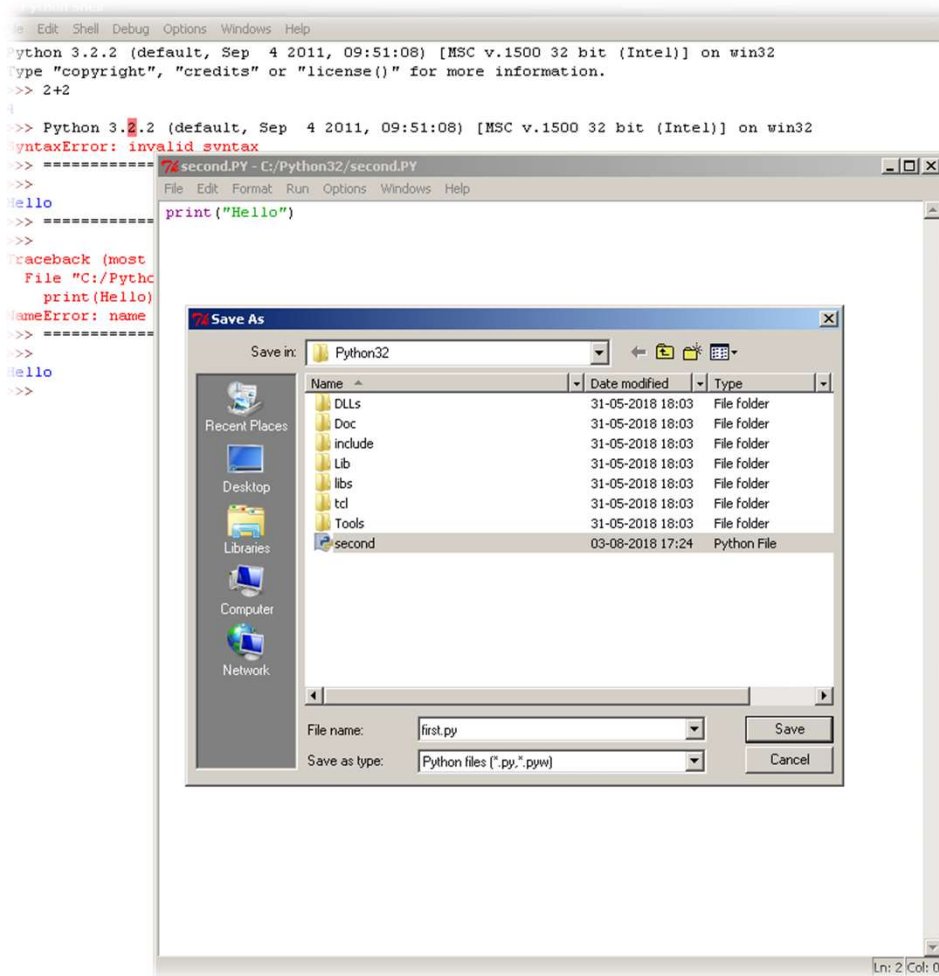
INVOKING SCRIPT MODE



```
Python Shell
File Edit Shell Debug Options Windows Help
Python 3.2.2 (default, Sep  4 2011, 09:51:08) [MSC v.1500 32 bit (Intel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>> 2+2
4
>>> Python 3.2.2 (default, Sep  4 2011, 09:51:08) [MSC v.1500 32 bit (Intel)] on win32
SyntaxError: invalid syntax
>>> =====
>>>
Hello
>>> =====
>>>
Traceback (most
  File "C:/Python32/first.py", line 1, in <module>
    print(Hello)
NameError: name
>>> =====
>>>
Hello
>>>
```

```
first.py - C:/Python32/first.py
File Edit Format Run Options Windows Help
print("Hello")
Ln: 2 Col: 0
```

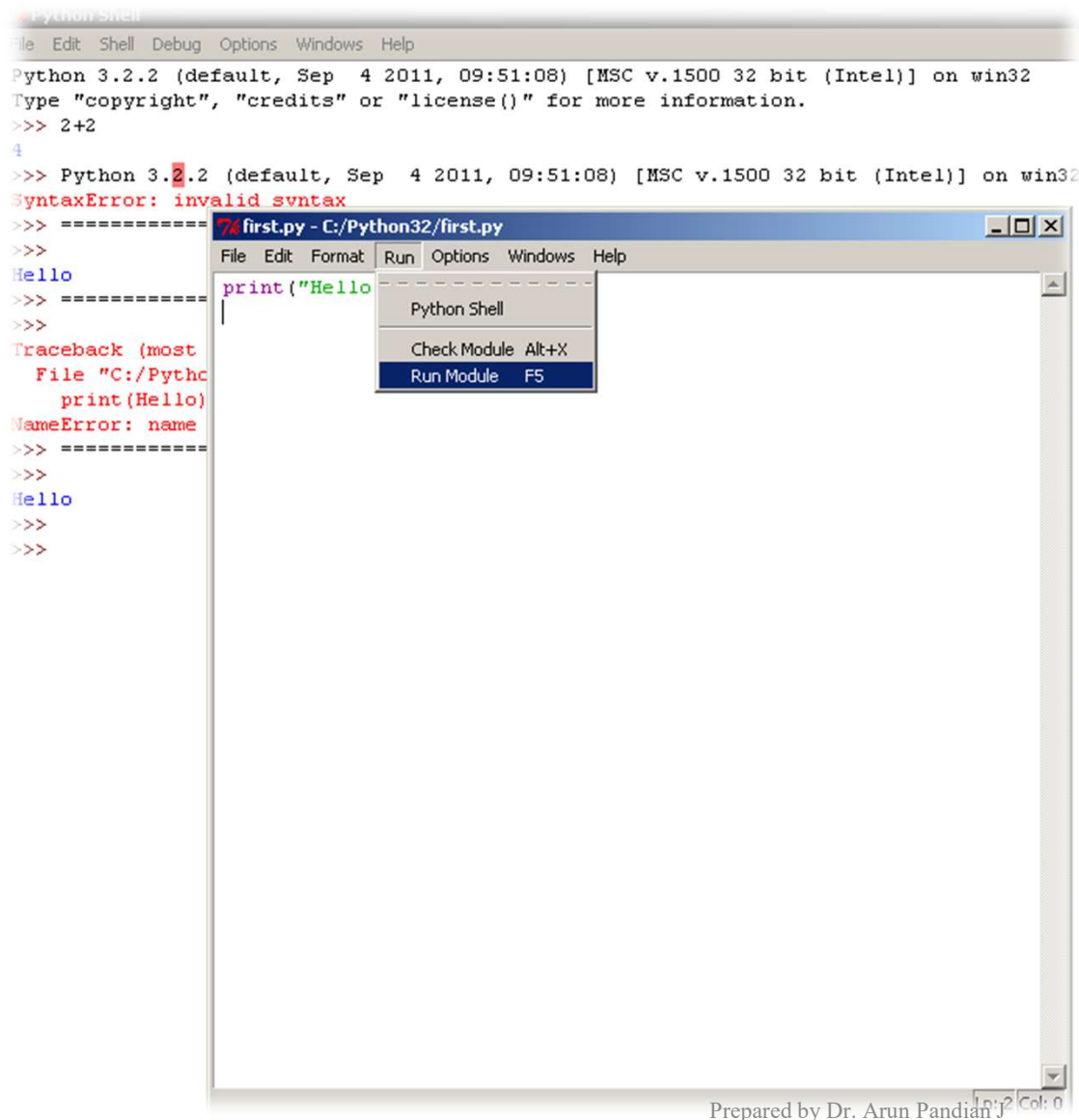
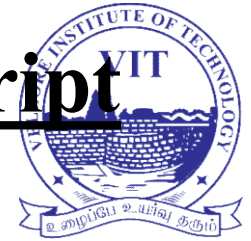
Saving Script / Program File



Click On File
Select Save
Give filename with
py extension

For Example:
first.py
Or
first.PY

Running or Executing Program / Script

The image shows two overlapping windows. The background window is the 'Python Shell' with a menu bar (File, Edit, Shell, Debug, Options, Windows, Help) and a command prompt. It shows the Python 3.2.2 startup screen, a successful calculation of 2+2, and a 'SyntaxError: invalid syntax' message. The foreground window is an editor titled 'first.py - C:/Python32/first.py' with a menu bar (File, Edit, Format, Run, Options, Windows, Help). It contains the code 'print("Hello" and has a context menu open over the 'Run' button, showing options: 'Python Shell', 'Check Module Alt+X', and 'Run Module F5' (which is highlighted).

**Click On Run
Select**

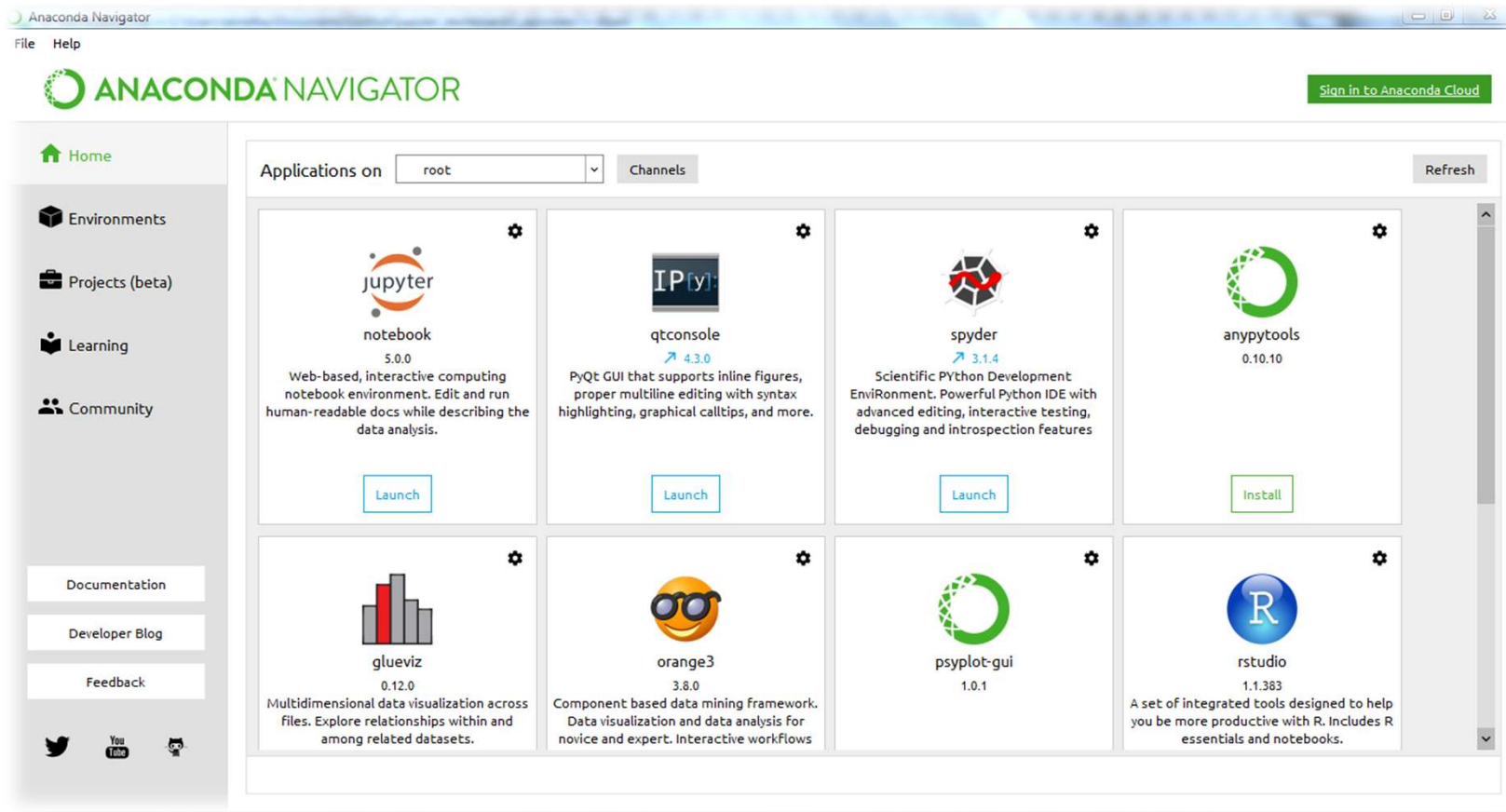
**Run Module
Or
F5**



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JUPYTER NOTEBOOK IDE



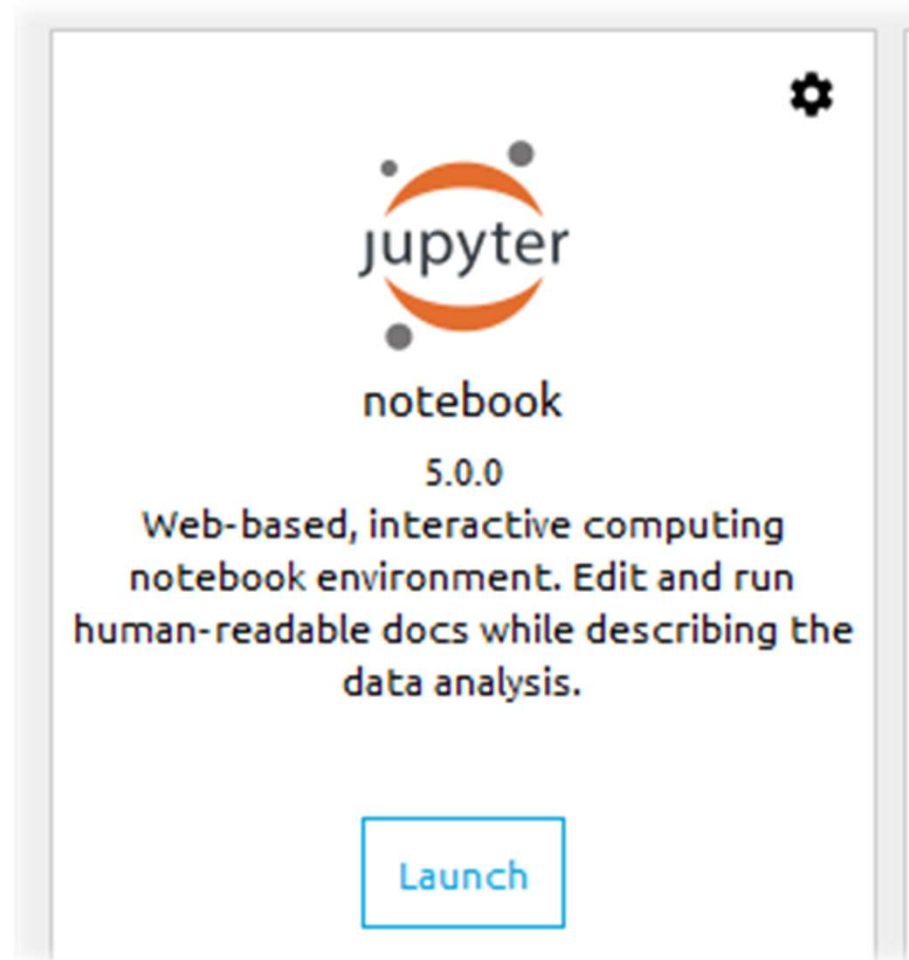
What is Jupyter Notebook?

The Jupyter Notebook is an ANACONDA TOOL and is an open-source web application that allows you to create and share documents that contain live code, equations, visualizations and narrative text.

Note: Jupyter Notebook runs on your browser.



JUPYTER NOTEBOOK IDE



JUPYTER NOTEBOOK IDE



JUPYTER DASHBOARD



localhost

jupyter

Files Running Clusters Conda

Select items to perform actions on them.

Upload New

/ bi1

..

data

- Text File
- Folder
- Terminal
- Notebooks
- Matlab
- Python [conda root]
- Python [default]



JUPYTER INTERACTIVE MODE



 jupyter Untitled (autosaved)

File Edit View Insert Cell Kernel Help

Cell Toolbar: None

In []:

Interrupt
Restart
Reconnect
Change kernel ▶

Julia 0.3.1
Python 2
Python 3
R



JUPYTER SCRIPT MODE



```
jupyter Untitled1 Last Checkpoint: 20 hours ago (unsaved changes)
File Edit View Insert Cell Kernel Help | R O
[Icons] + % [Icons] [Icons] [Icons] [Icons] Code Cell Toolbar: None
In [22]: x <- rnorm(10)
         y <- rnorm(10)
         summary(lm(y~x))

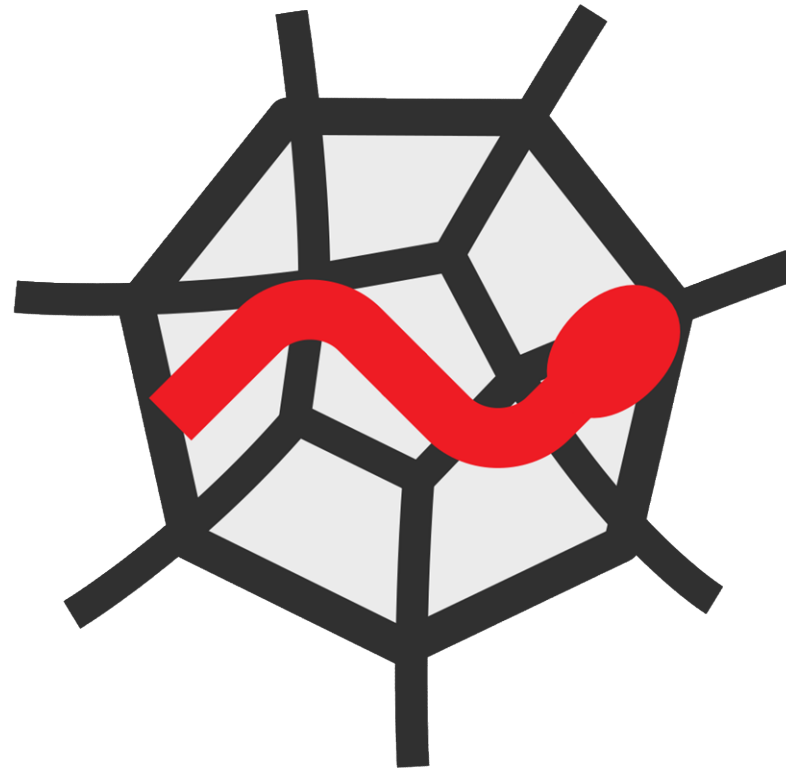
Out[22]:
Call:
lm(formula = y ~ x)

Residuals:
    Min       1Q   Median       3Q      Max
-1.4317 -0.8257 -0.1580  0.9709  1.4319

Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.01308    0.34428   0.038   0.9706
x            1.05533    0.44650   2.364   0.0457 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 1.088 on 8 degrees of freedom
Multiple R-squared:  0.4112,    Adjusted R-squared:  0.3376
F-statistic: 5.586 on 1 and 8 DF,  p-value: 0.0457
```

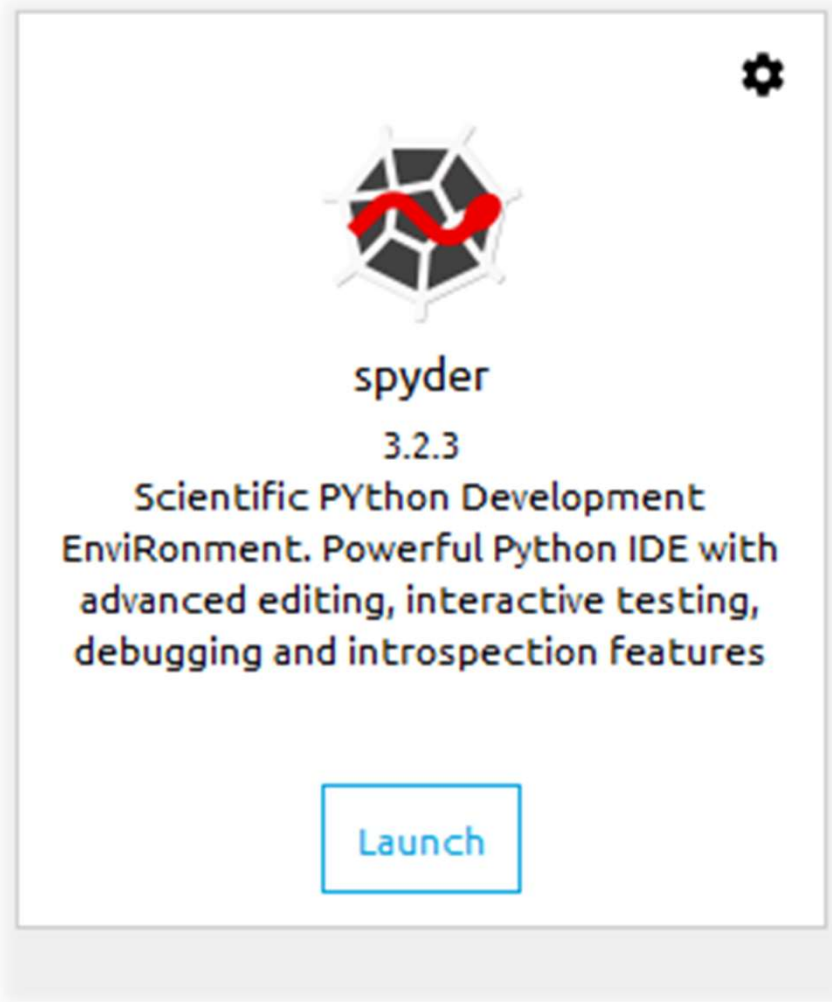
SPYDER IDE



SPYDER



SPYDER IDE





SPYDER IDE

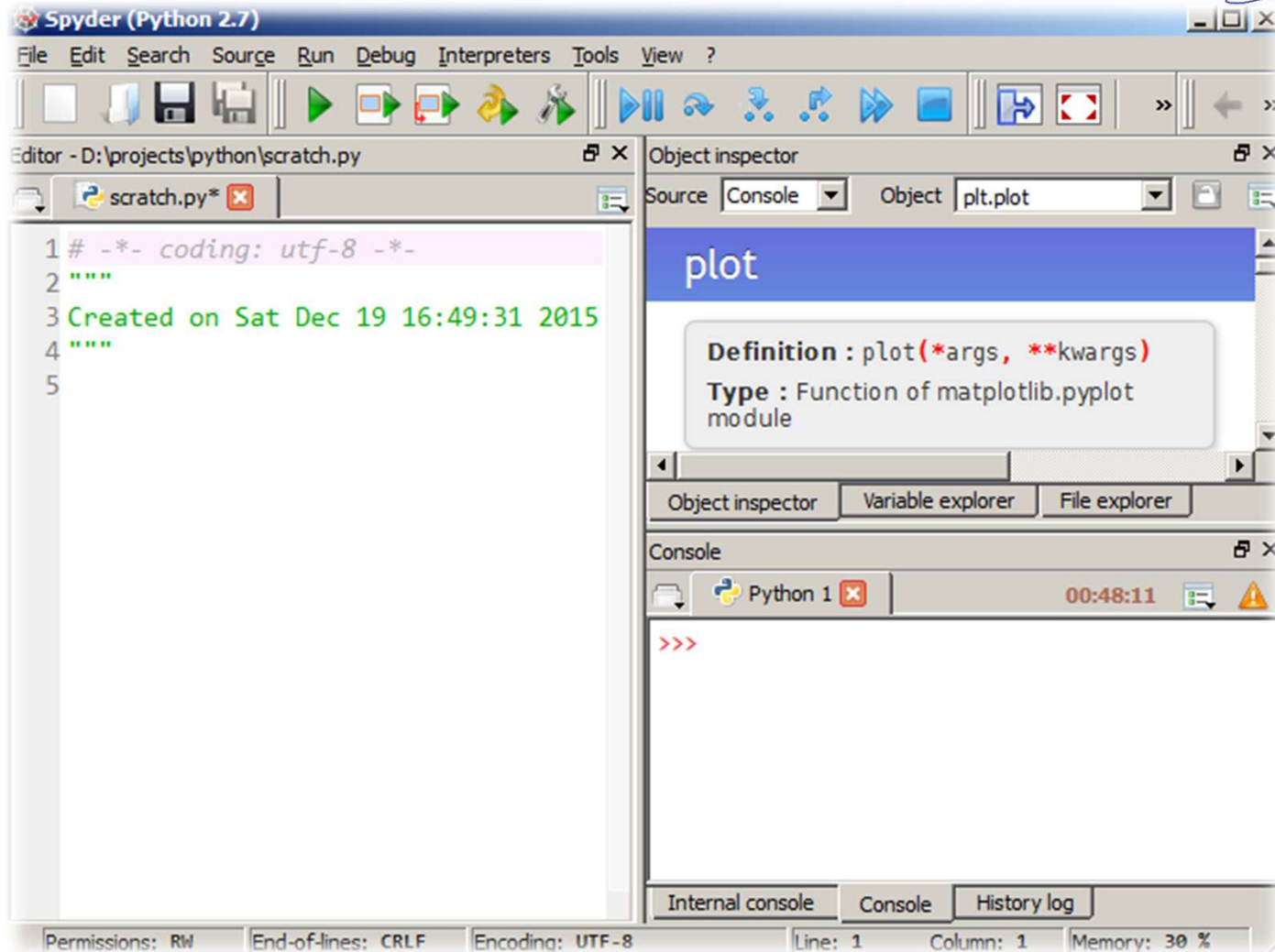


What is Spyder?

Spyder is an open source cross-platform integrated development environment (IDE) for scientific programming in the Python language



SPYDER IDE





PyScripter IDE



PyScripter IDE

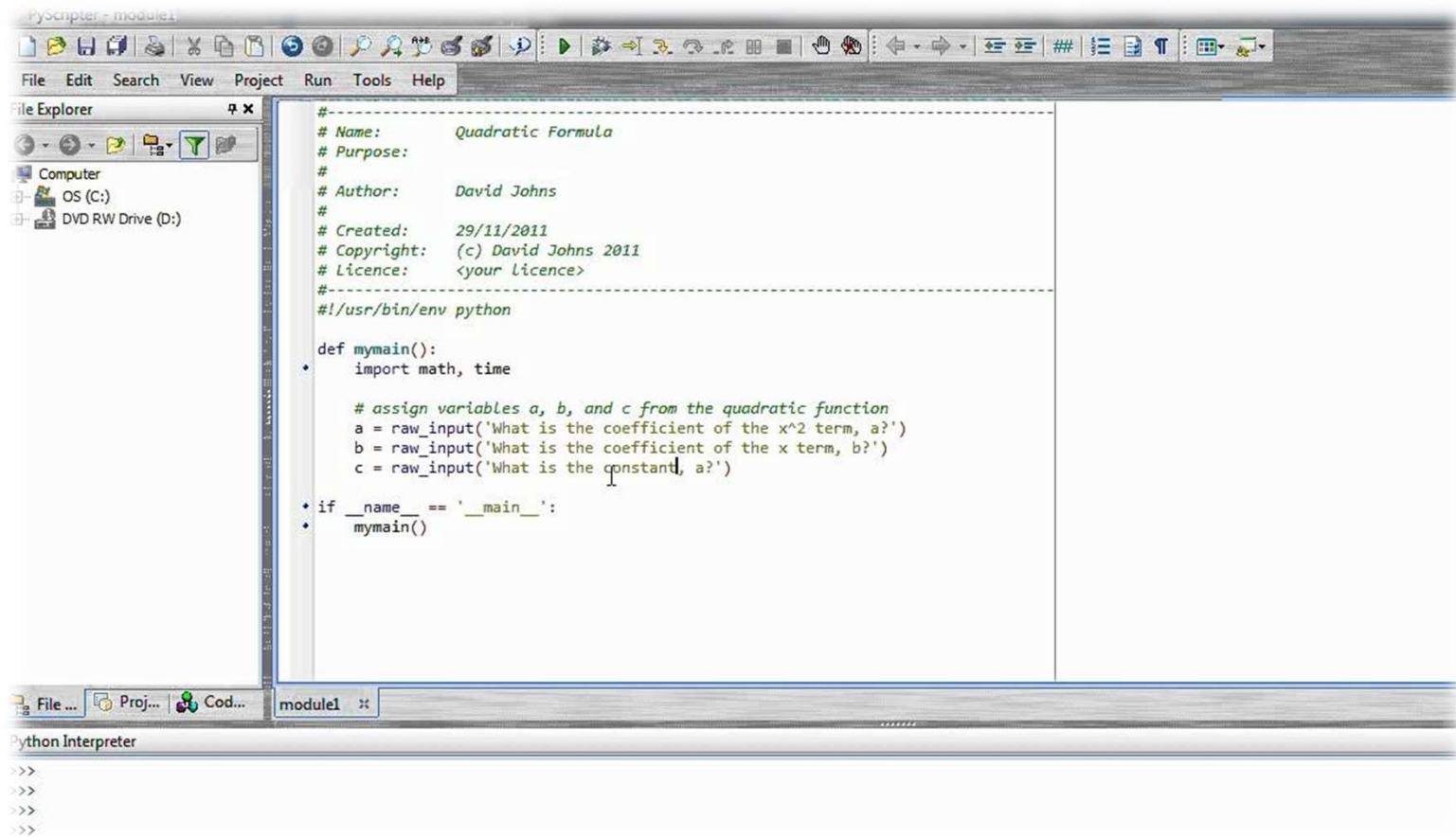


What is PyScripter?

PyScripter is a free and open-source Python Integrated Development Environment (IDE) created with the ambition to become competitive in functionality with commercial Windows-based IDEs available for other languages



PyScripter IDE





Hello World Program

```
print("Hello World")
```



Demo on IDE

```
IDLE Shell 3.11.2
File Edit Shell Debug Options Window Help
Python 3.11.2 (tags/v3.11.2:878ead1,
AMD64) on win32
Type "help", "copyright", "credits" o
>>> print("hello World")
hello World
>>> |
```