

Visual Studio **LIVE!**  
EXPERT SOLUTIONS FOR ENTERPRISE DEVELOPERS

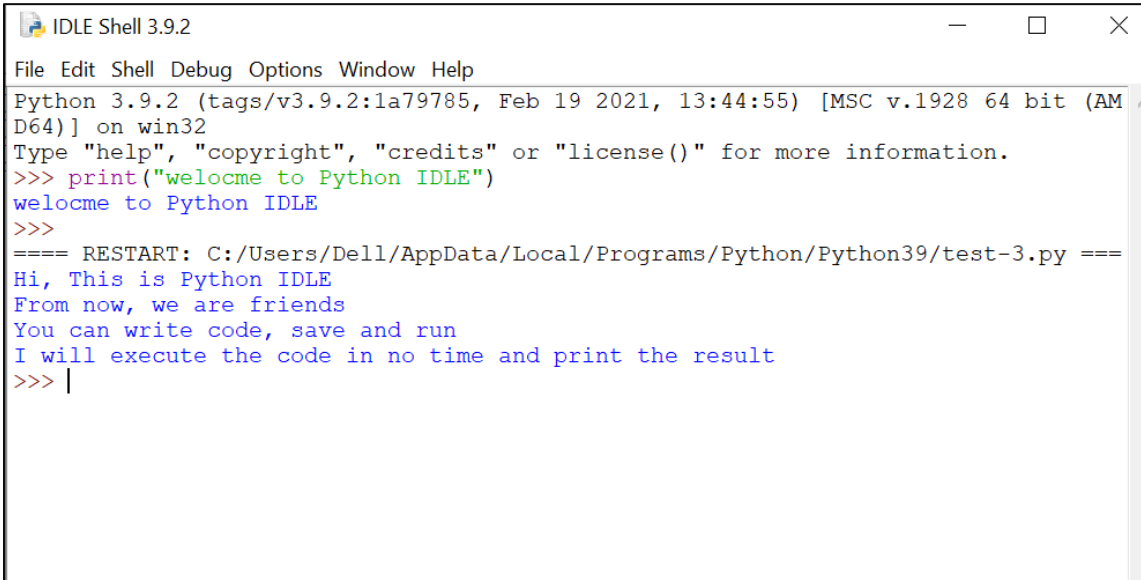
**Las Vegas**

# Python overview

#VSLIVE

**Your Code Powers the World.  
Our Training Powers You.**

# Python IDLE



```
Python 3.9.2 (tags/v3.9.2:1a79785, Feb 19 2021, 13:44:55) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> print("welcome to Python IDLE")
welcome to Python IDLE
>>>
==== RESTART: C:/Users/Dell/AppData/Local/Programs/Python/Python39/test-3.py ====
Hi, This is Python IDLE
From now, we are friends
You can write code, save and run
I will execute the code in no time and print the result
>>> |
```

Integrated  
Development  
and Learning  
Environment

# Implementations

- Python has two full production-quality implementations
  - CPython (aka Python)
  - PyPy

# IPython

- Power and convenience
- IPython Notebook → Jupyter Notebook

# Anaconda

- Includes preconfigured extension modules
- Based on Conda package manager
- Miniconda is a sister to Conda
  - doesn't preload the packages
  - Lighter weight
  - Gives you control for tailored environments

# Interpreter

- Python.exe
- Environment variables:
  - PATH
    - where to find Python.exe
  - PYTHONHOME
    - python installation directory with lib
  - PYTHONPATH
    - list of module directories
  - PYTHONSTARTUP
    - python source to execute on start of interpreter

# REPL

- Read
  - Evaluate
  - Print
  - Loop
- 
- Interactive session to run python

# Python environment

- Context in which a Python program runs
  - Interpreter
  - Packages



# pip package manifest

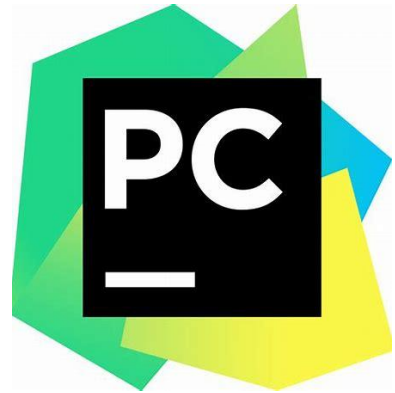
requirements.txt

- Export
  - freeze > [file-path-to-requirements.txt]
- Import
  - install -r [file-path-to-requirements.txt]

# JetBrains PyCharm

```
Python Console x
import fbprophet
import matplotlib as mpl
import matplotlib.pyplot as plt
import numpy as np
import pandas as pd
import requests

Importing plotly failed. Interactive plots will not work.
In[3]: mpl.style.use('ggplot')
      figsize = (14,7)
In[4]: now = datetime.datetime.utcnow()
      print(f'This notebook was last rendered at {now} UTC')
      This notebook was last rendered at 2020-06-29 14:45:41.977553 UTC
In[5]: hits_df = pd.read_csv('ipynb_counts.csv', index_col=0, header=0, parse_
      hits_df.reset_index(inplace=True)
      hits_df.drop_duplicates(subset='date', inplace=True)
      hits_df.set_index('date', inplace=True)
      hits_df.sort_index(inplace=True)
In[6]: hits_df.tail(3)
Out[6]:
      hits
date
2020-05-27  7697597
2020-05-28  7712332
2020-05-29  7729962
In[7]: til_today = pd.
In[8]: hits_df = hits_df.rein
```



<https://www.jetbrains.com/pycharm/>

# Python Resources

- [3.12.0 Documentation \(python.org\)](https://python.org)
- [The Python Tutorial — Python 3.12.0 documentation](#)
- [The Python Language Reference — Python 3.12.0 documentation](#)
- [The Python Standard Library — Python 3.12.0 documentation](#)
- [PEP 0 – Index of Python Enhancement Proposals \(PEPs\) | peps.python.org](https://peps.python.org)
- [PyPI · The Python Package Index](#)

# Online Resources

- [Python 3 Tutorial - Learn Python 3 \(geeksforgeeks.org\)](#)
- [Introduction To Python – GeeksforGeeks](#)
- [Get Started Tutorial for Python in Visual Studio Code](#)
- [Python for beginners - Training | Microsoft Learn](#)
- [Python Tutorial \(w3schools.com\)](#)
- [Learn Python - Free Interactive Python Tutorial](#)