

ALGORITMOS E PROGRAMAÇÃO DE COMPUTADORES I

Sobre Python

PYTHON

Desenvolvida no final da década de 80 por Guido van Rossum (CWI – Holanda)

De propósito geral, projetada para desenvolver programas de alta legibilidade

Possui uma vasta biblioteca para diferentes aplicações

Grande popularidade nos últimos anos

Versão atual: 3.8.3 (desejável: > 3.5)

PYTHON

Em nossa disciplina, poderemos aprender Python:

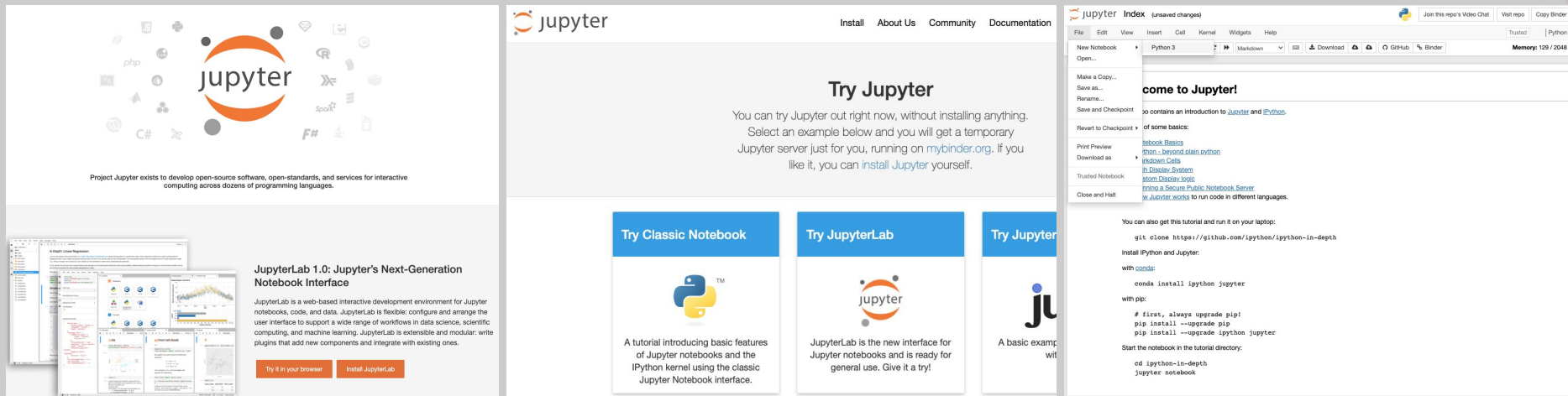
- Usando uma interface online, que não precisa instalar nenhum software no computador**

ou

- Instalando o interpretador Python no computador e uma IDE**

INTERFACE ONLINE

Jupyter Notebook:
<https://jupyter.org/>



The collage consists of four panels. The top-left panel features the Jupyter logo, surrounded by icons for various programming languages like PHP, C#, F#, and others. Below the logo, it states: "Project Jupyter exists to develop open-source software, open-standards, and services for interactive computing across dozens of programming languages." The top-right panel is a screenshot of the Jupyter website's "Try Jupyter" section, which encourages users to try Jupyter without installation and provides a link to mybinder.org. The bottom-left panel shows the JupyterLab 1.0 interface, highlighting it as the "Next-Generation Notebook Interface" and describing its flexibility and extensibility. The bottom-right panel is a screenshot of the Jupyter Notebook interface, displaying a "Welcome to Jupyter!" message and instructions on how to get the tutorial and run it on a laptop.

INSTALAÇÃO

Para configurar o Python no computador, é necessário fazer o download e instalar o kit de desenvolvimento em Python - <https://www.python.org/downloads/>

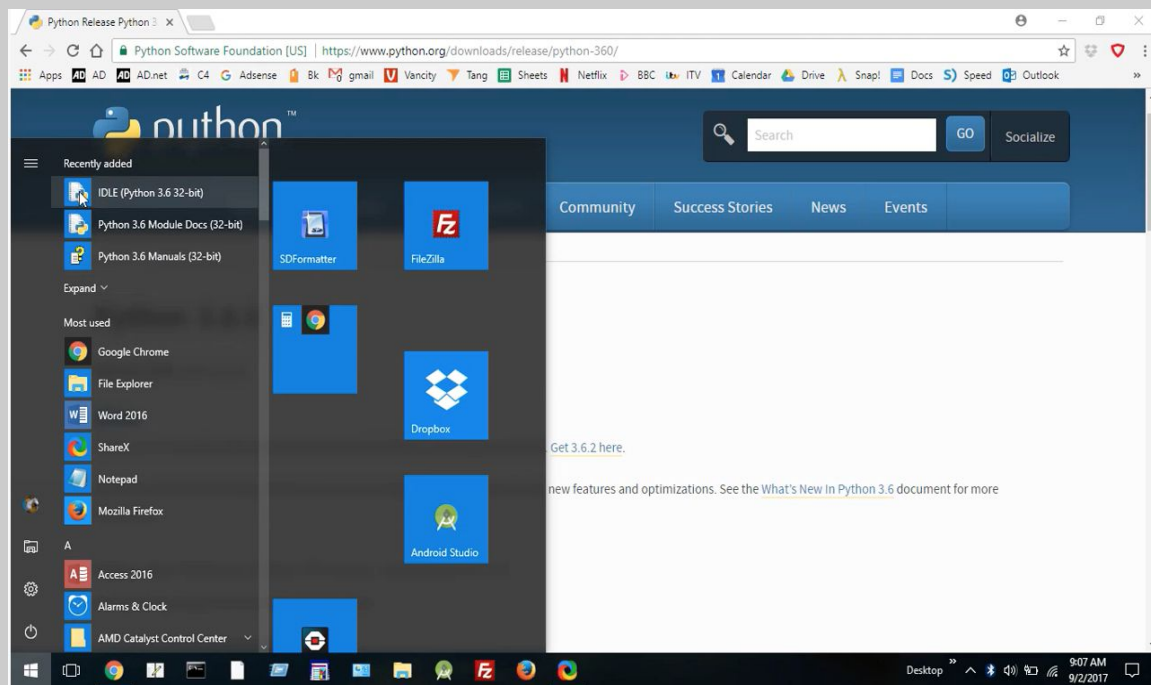
Instalar a versão de acordo com Sistema Operacional:

- Windows
- Linux
- Mac OSX

TESTANDO

O kit já vem com o interpretador IDLE

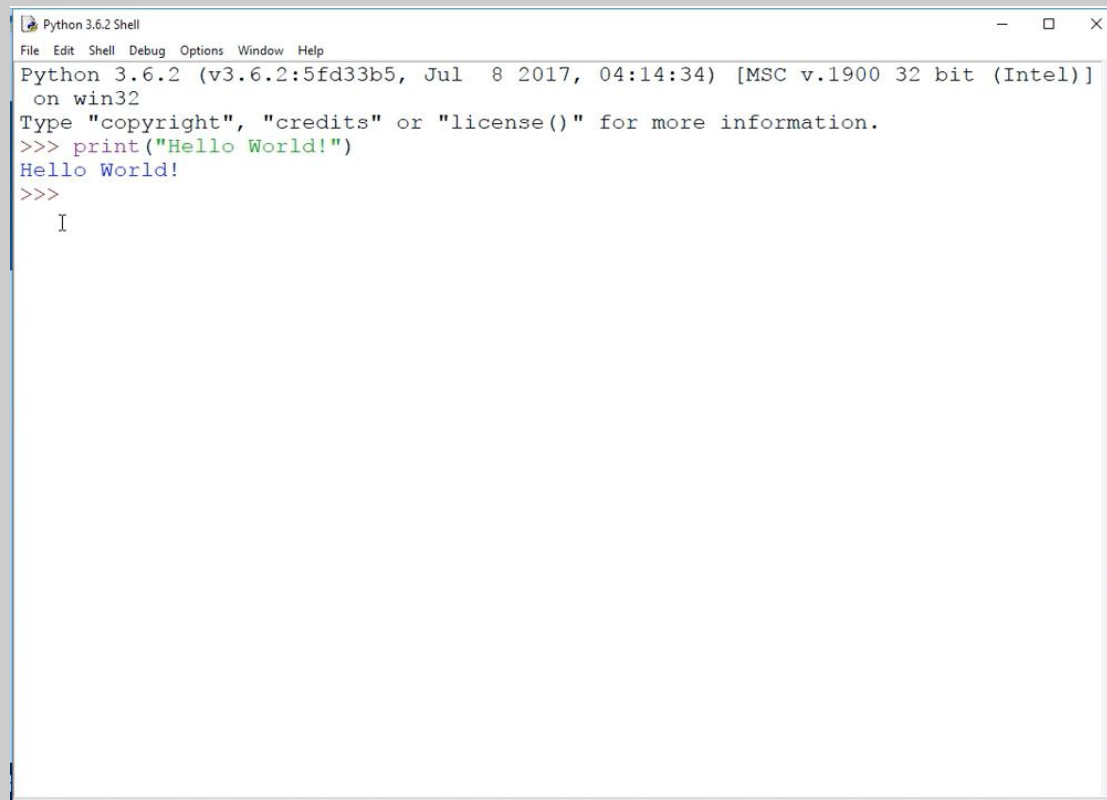
Para executá-lo, basta selecioná-lo no menu



Fonte: https://www.youtube.com/watch?time_continue=92&v=3Xy221yv9A8&feature=emb_logo

TESTANDO

Interpretador IDLE

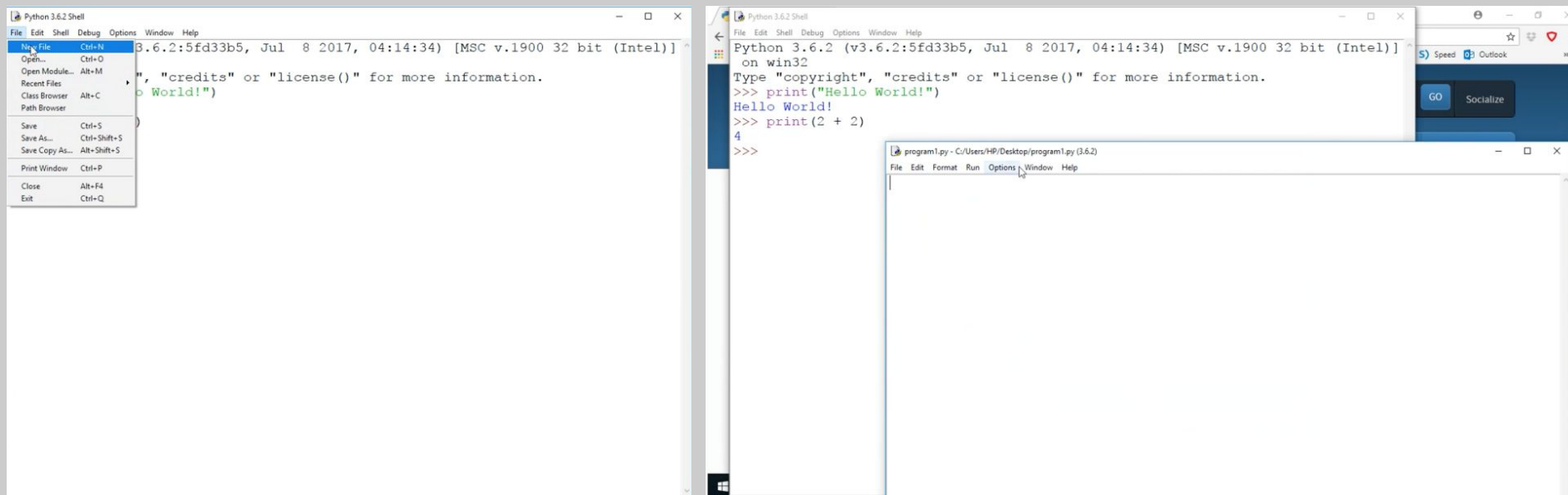
A screenshot of a Windows command prompt window titled "Python 3.6.2 Shell". The window has a menu bar with "File", "Edit", "Shell", "Debug", "Options", "Window", and "Help". The text inside the window shows the Python version and build information: "Python 3.6.2 (v3.6.2:5fd33b5, Jul 8 2017, 04:14:34) [MSC v.1900 32 bit (Intel)] on win32". It then prompts the user with "Type 'copyright', 'credits' or 'license()' for more information." followed by a prompt ">>>". The user has entered "print('Hello World!')" and the output "Hello World!" is displayed. The prompt ">>>" is shown again on the next line, with a cursor character "I" at the end of the line.

```
Python 3.6.2 Shell
File Edit Shell Debug Options Window Help
Python 3.6.2 (v3.6.2:5fd33b5, Jul 8 2017, 04:14:34) [MSC v.1900 32 bit (Intel)]
on win32
Type "copyright", "credits" or "license()" for more information.
>>> print("Hello World!")
Hello World!
>>>
I
```

Fonte: https://www.youtube.com/watch?time_continue=92&v=3Xy221yv9A8&feature=emb_logo

TESTANDO

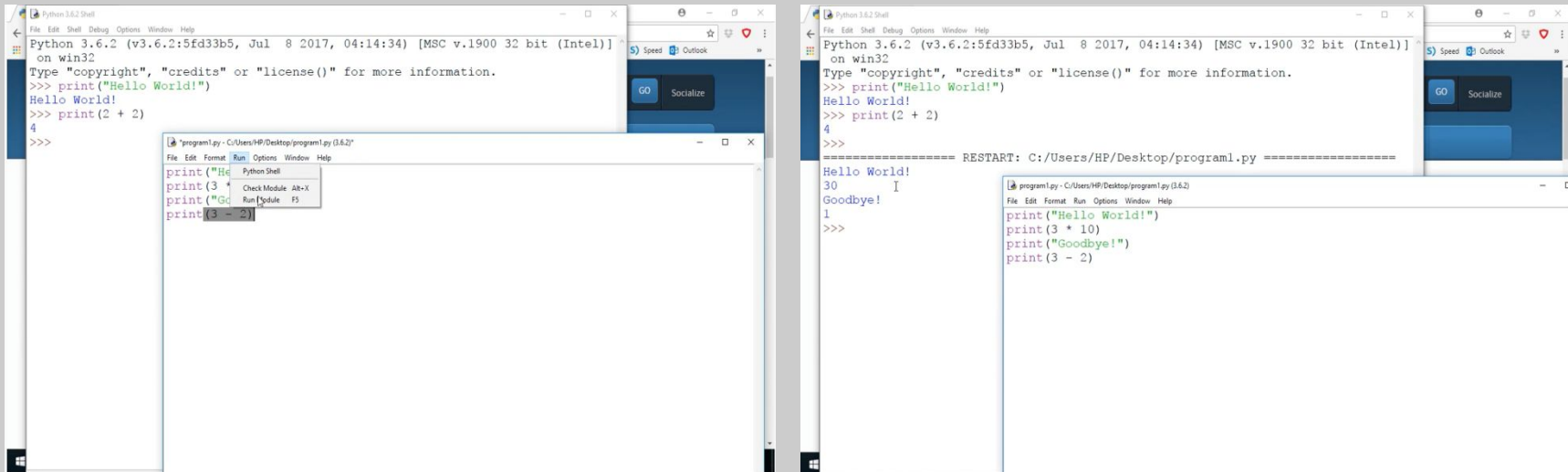
Abrindo uma nova janela



Fonte: https://www.youtube.com/watch?time_continue=92&v=3Xy221yv9A8&feature=emb_logo

TESTANDO

Executando o arquivo



Fonte: https://www.youtube.com/watch?time_continue=92&v=3Xy221yv9A8&feature=emb_logo

IDE

Integrated Development Environment

Aplicativo que fornece funcionalidades interessantes para o programador de software

Geralmente consiste de um editor de texto, compilador e debugador de Código

Para Python, existem várias IDEs disponíveis:

<https://wiki.python.org/moin/IntegratedDevelopmentEnvironments>

PyCharm

Iremos utilizar o PyCharm:

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

Instalação do plugin “PyCharm cell mode”

Configuração de teclas de atalho

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