Preparation for the course "Introduction to `python`"

October 12, 2022

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1 Introduction

Before attending the online course "Introduction to `python`" **you** have to install `python` and an editor locally. We recommend you using the latest `python` 3 version and a rudimentary editor.

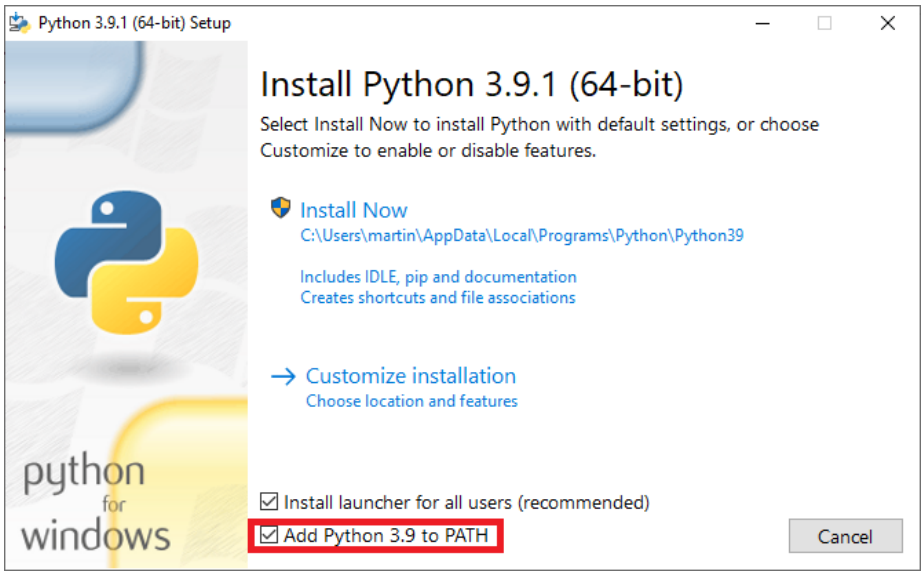
2 Windows

Please download the latest `python` version (which, by the time of this document, is version 3.10.1) from the official website: `https://www.python.org/downloads/`.

The `python` installer will be packed as an executable: `python-3.10.1-amd64.exe`

Launch the installer:

1. In the first window please mark `Add Python 3.10 to PATH`.



2. Choose `Install Now`.
3. Accept the access rights.
4. After successful installation close the installer.

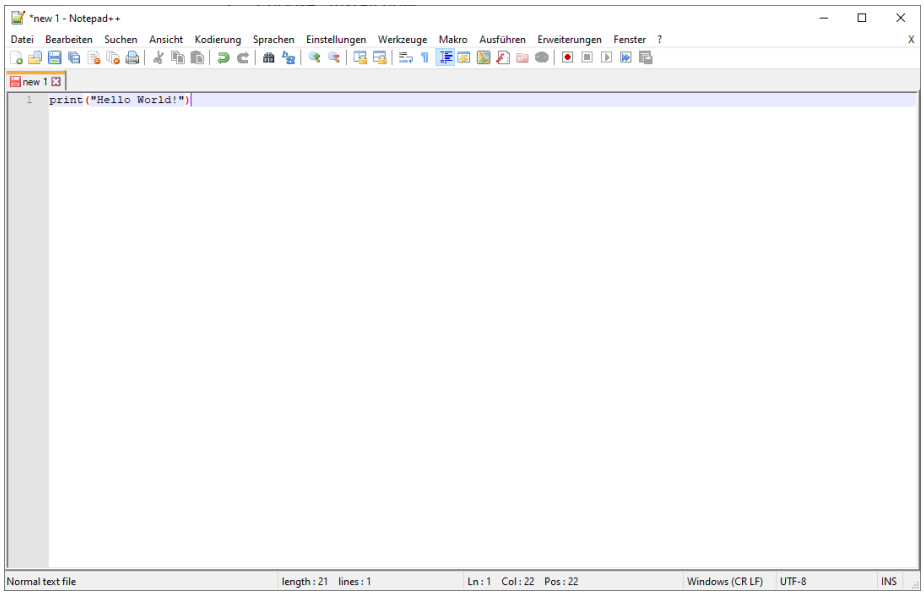
Download the latest version of `Notepad++`: `https://notepad-plus-plus.org/downloads/`.
The installer will be packed as an excecutable: `npp.8.1.9.3 .Installer`
Launch the installer:

1. Choose your language.
2. Click `next`.
3. Read terms and agree.
4. Use default location (click `next`).
5. Use default settings (click `next`).
6. Create shortcut (click `install`).
7. Close the installer and start `Notepad++`.

Now test your installation.

1. Create a new file (`file` → `new`).
2. Copy the following line:

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



3. Save file as `hello_world.py`.

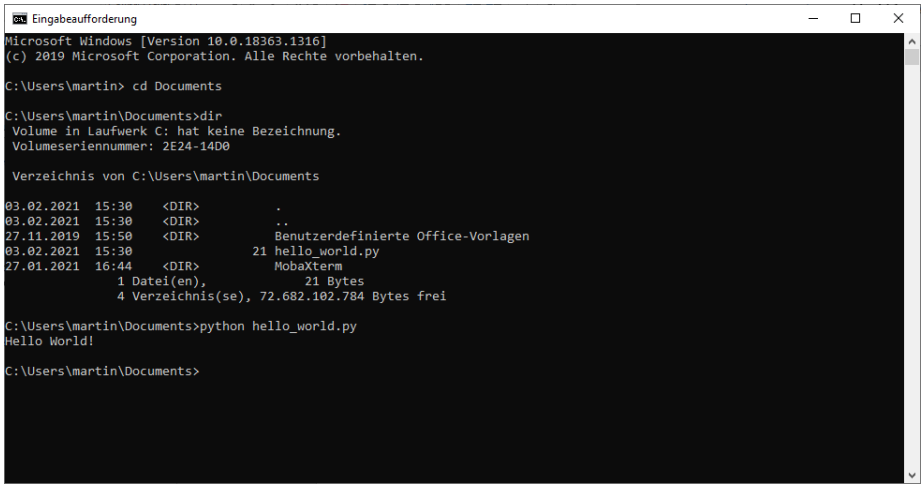
4. Open a command prompt: You can easily open the Command Prompt by clicking Start and then typing "cmd" into the search box.

5. Switch the current directory to the corresponding directory with the command `cd` (change directory). In my case I saved the file in "Documents".

6. With the command `dir` you can list all files.

7. Execute the written `python` code:

   ```
   python hello_world.py
   ```



8. If you see the output `Hello World!`, you successfully installed `python` and executed your first program.

3 Linux / macOS

For installing `python` we use the simple `python` version management tool `pyenv`: `https://github.com/pyenv/pyenv`. `pyenv` installs a local `python` version for each user in `$HOME`. We do not recommend to use the system default `python`.

Before installation we highly recommend you installing required dependencies listed for your operating system under `prerequisites`: `https://github.com/pyenv/pyenv/wiki/common-build-problems#prerequisites`

First install `pyenv`:

- For macOS use `homebrew`: `https://github.com/pyenv/pyenv#homebrew-on-macos`.
- For Linux follow the basic github checkout: `https://github.com/pyenv/pyenv#basic-github-checkout`.

Now install `python`:

1. Install the latest `python` version (which, by the time of this document, is version 3.10.1).

   ```
   $ pyenv install 3.10.1
   ```

2. Activate the installed `python` version.

   ```
   $ pyenv global 3.10.1
   ```

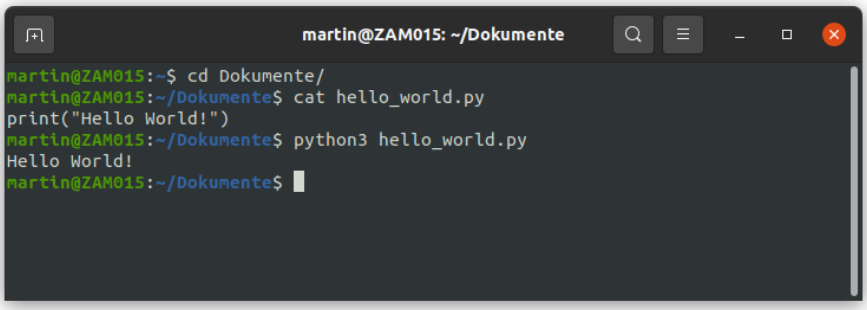
Now test your installation.

1. Create a new file named `hello_world.py` using an editor of your choice. We recommend a preferably rudimentary editor like `gedit`, `vim` or `kate` without autocompletion.
2. Copy the following line:

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

3. Open a terminal.
4. Switch the current directory to the corresponding directory with the command `cd` (change directory).
5. With the command `ls` you can list all files.
6. Execute the written `python` code:

   ```
   python3 hello_world.py
   ```



7. If you see the output `Hello World!`, you successfully installed `python` and executed your first program.