

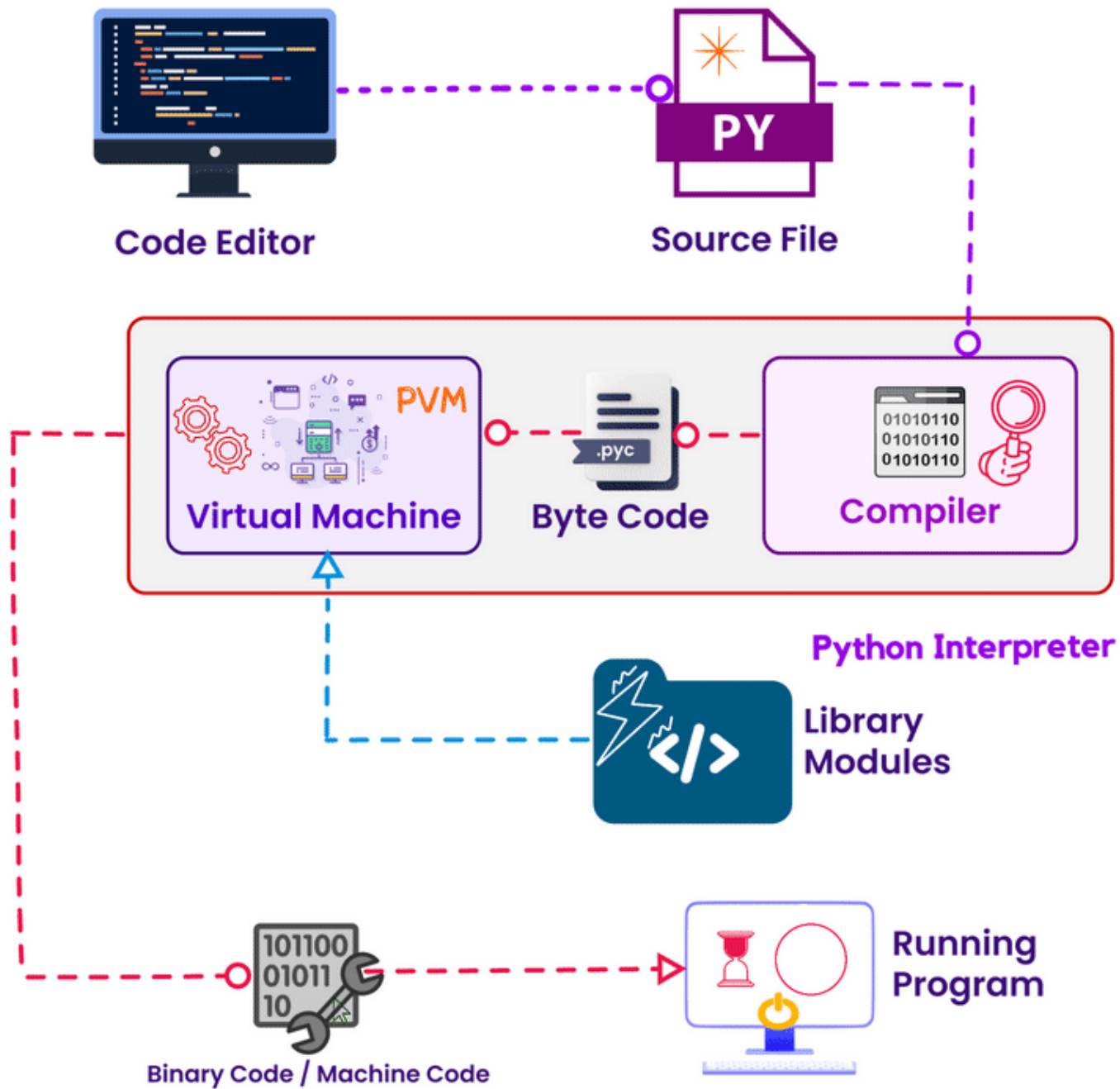


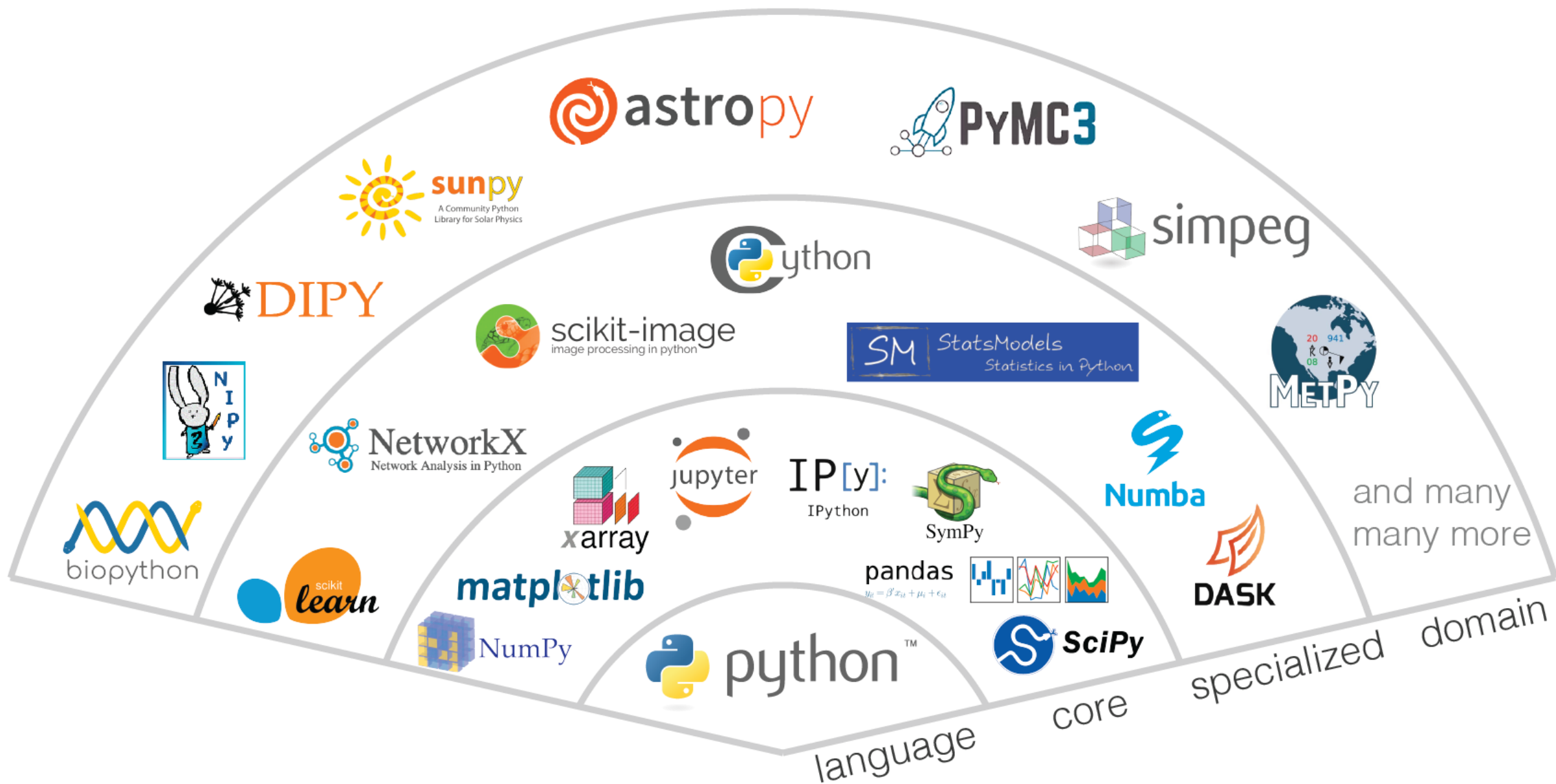
Python

# Modules and Libraries

JUNIA ISEN / M1 / 2024-2025

Nacim Ihaddadene





# What can you import ?

## Standard python library

Example :

```
import os  
import sys  
import math
```

## 3rd party installed librairies

Example :

```
import numpy  
import tensorflow  
import pandas
```

## Any .py file Something you wrote

Example :

```
import mylibrary  
import fractional  
import animal
```

# Why ?

- Useful / reusable / shared / verified code
  - Avoid duplication
  - Increase simplicity and readability
  - Decrease coding mistakes
- Raise the potential of tasks and applications

# How ?

```
import math  
x = math.sqrt(25)
```

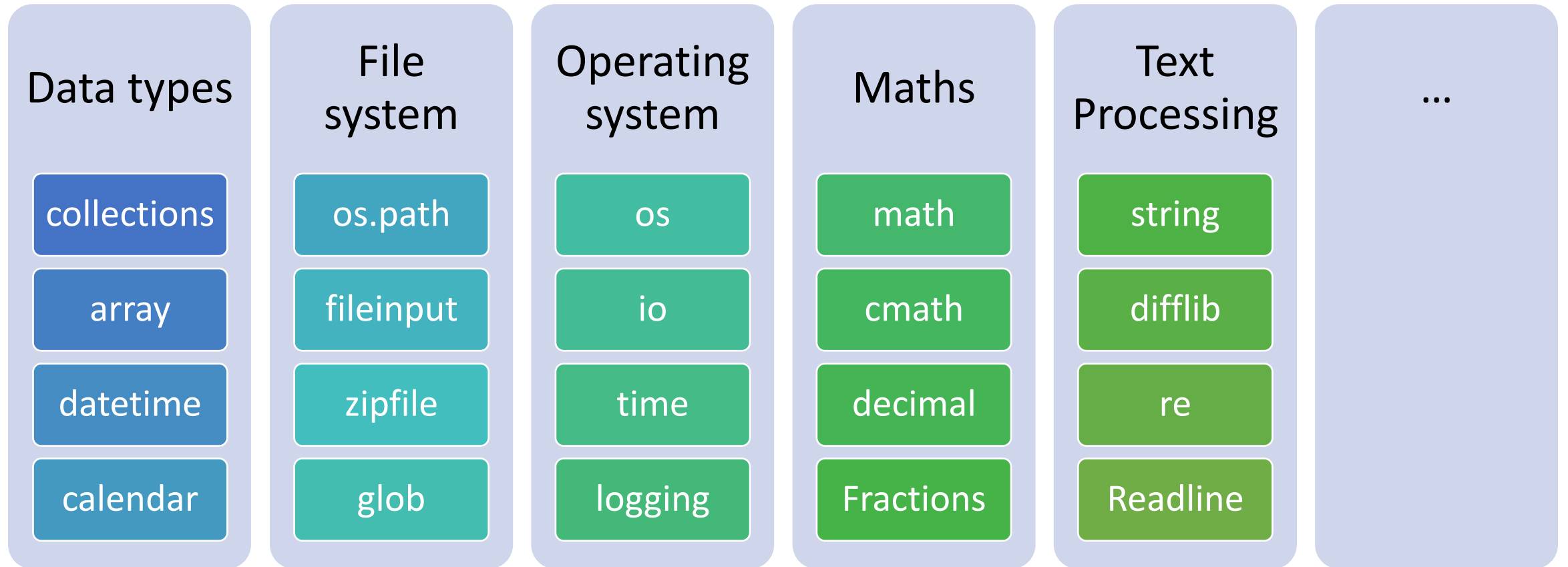
```
import math as m  
x = m.sqrt(25)
```

```
from math import sqrt  
x = sqrt(25)
```

```
from math import * # use with caution  
x = sqrt(25)
```

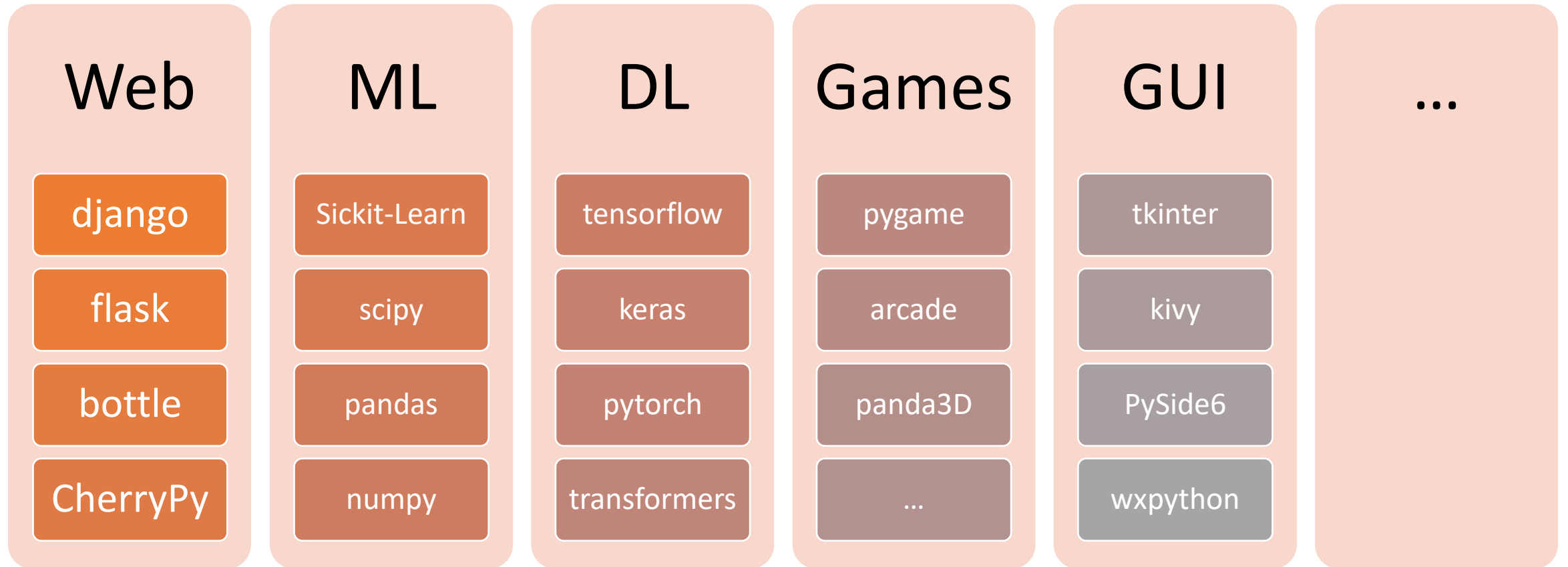
```
from math import sqrt as sr  
x = sr(25)
```

# Python Standard Libraries



Explore them : <https://docs.python.org/3/library/index.html>

# 3rd party Libraries and frameworks



Explore them : <https://pypi.org/>



# Exercices : Create scripts to :

- List all the files of an available folder
- Create a QR code and put it in a pdf file
- Scrap a web page
- Create a mini tic tac toe game
- Auto move the mouse to make a circle
- Create a GUI for fraction calculator
- ...

Copilot is allowed !

Surprise me !