

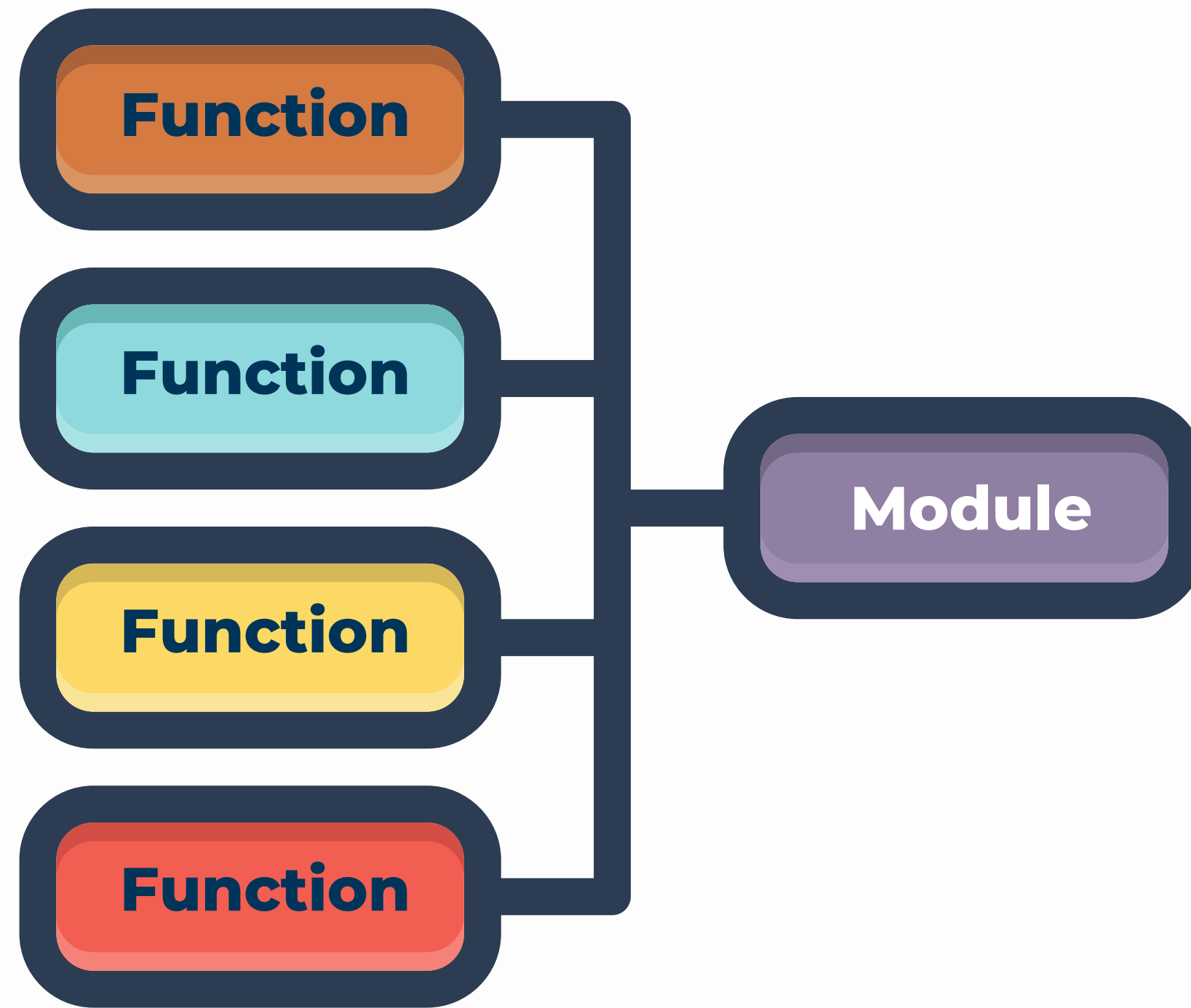
MACHINE LEARNING

DAY – 6

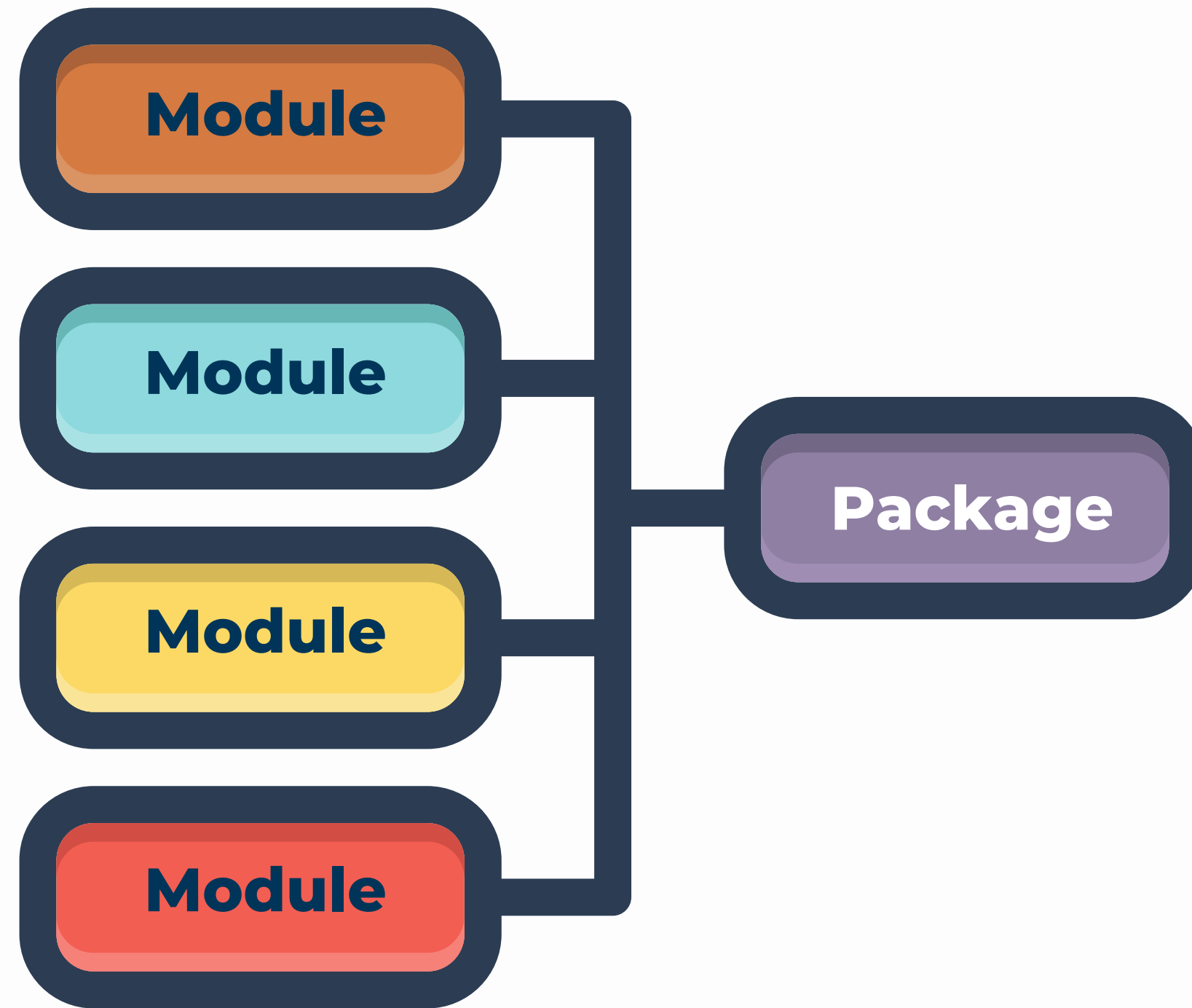
**MODULES,
PACKAGES,
LIBRARY**



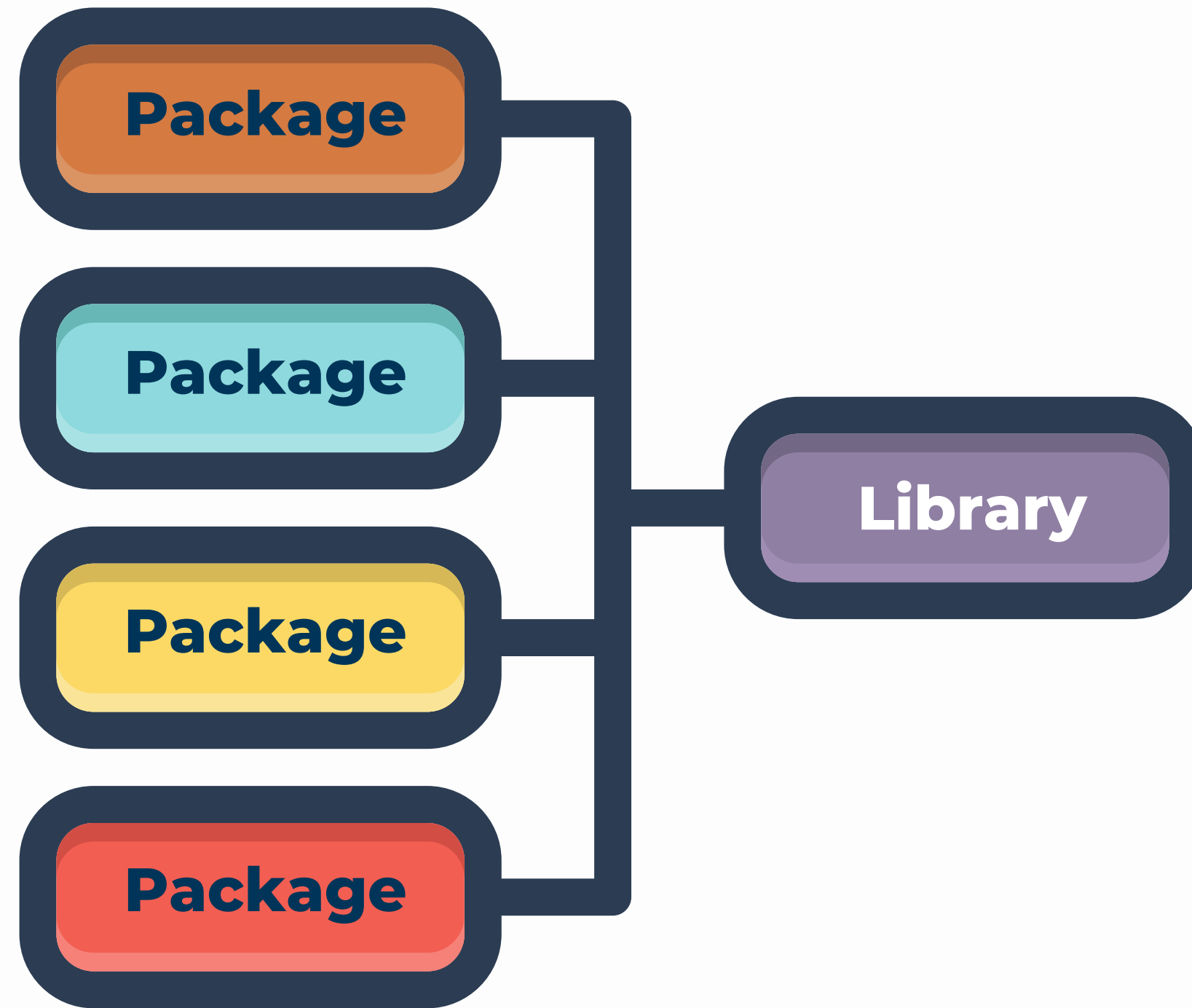
MODULES



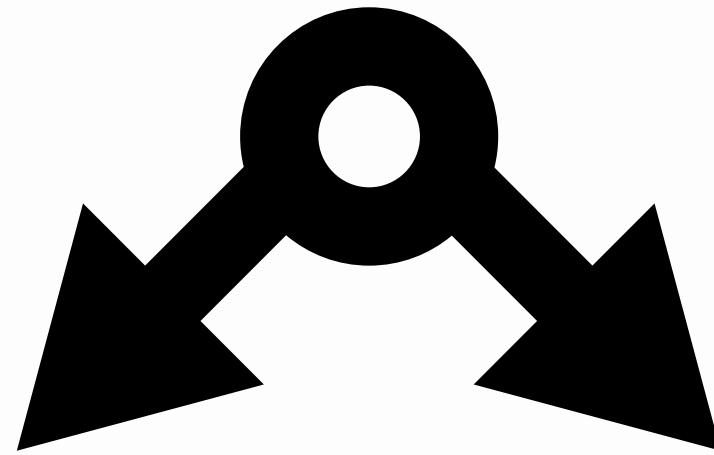
PACKAGE



LIBRARY



MODULE



Pre defined

User defined

PRE DEFINED MODULE

- These are in built modules available in python which can be imported and used
- example: os, random etc

RANDOM

- Random is a built in module in python that you can use to make random numbers.



random

```
import random
```

```
random.random( )
```

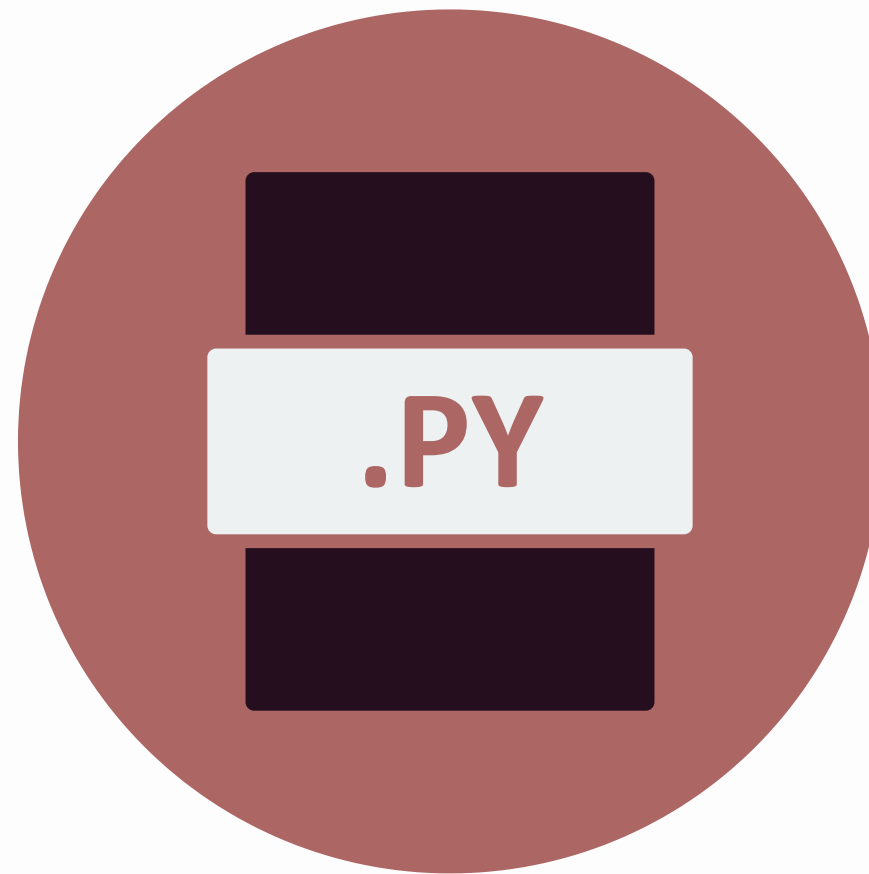
```
random.randint(start, end)
```

```
random.choice(list)
```

```
random.randrange(start, end, step)
```


HOW TO CREATE A MODULE (USER DEFINED)

- To create a module , you have to save the file in .py extension



HOW TO CREATE A PACKAGE

- To create a package, you have to create a new directory with all the necessary modules in it
- Also the folder should contain a file in the name `"__init__.py"` to make that folder as python package




LIBRARY




- The Python Package Index (PyPI) is a repository of software for the Python programming language.
- PyPI helps you find and install software developed and shared by the Python community




PIP

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pandas 1.5.3

`pip install pandas`

 [Latest version](#)

Released: Jan 19, 2023

Powerful data structures for data analysis, time series, and statistics

Navigation

Project description

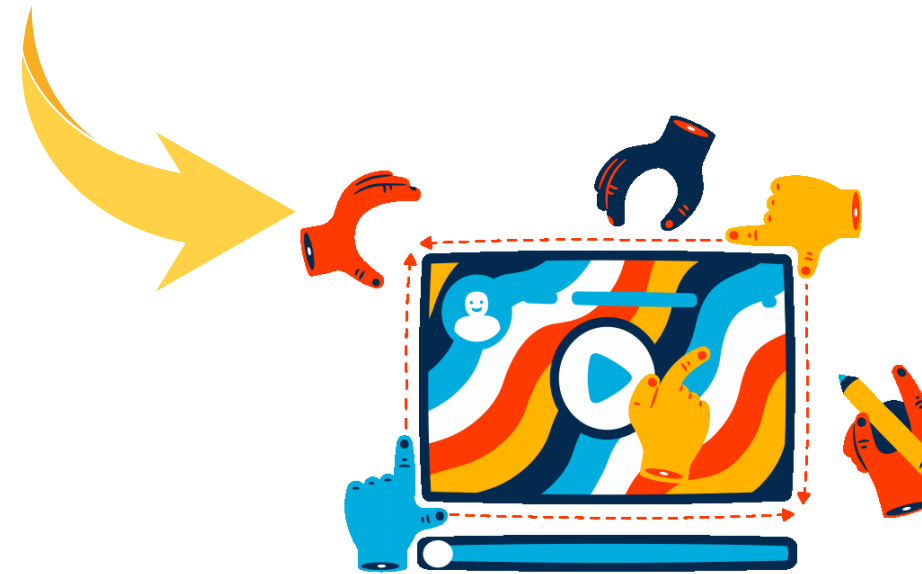


```
pip install pandas
```

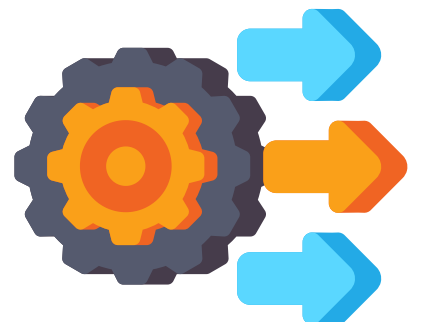
MACHINE LEARNING



past data

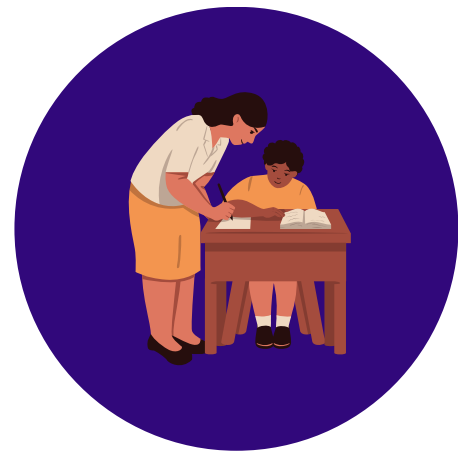


process and analyze



model

TYPES OF MACHINE LEARNING



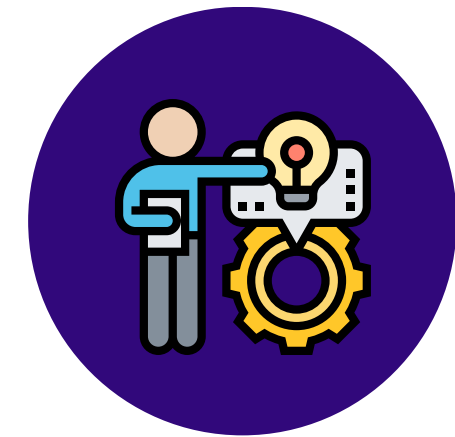
Supervised machine learning

Machines are trained using well "labelled" training data



Unsupervised machine learning

Models are trained using unlabeled dataset



Reinforcement machine learning

Reinforcement machine learning is feedback based techniques

Steps in Machine Learning

- Data collection
- Preprocessing
- Feature selection
- train, test, split
- Model - selection, training
- Predictions
- Evaluate and improve

DATA COLLECTION

- Kaggle
- UCI machine learning repository
- Google dataset search

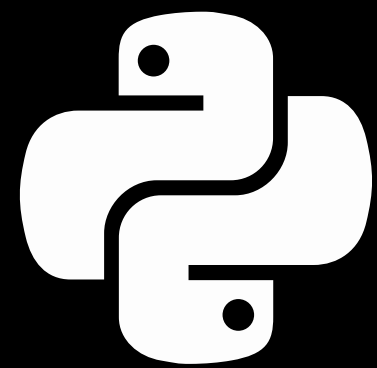
kaggle



Google Dataset Search Beta

Search for Data Sets





Working with data in python using pandas