# TP1_LSI1

February 26, 2021

### Objectif

L'objectif de ce TP est de familialiser les étudiants avec l'IDLE Python qui est un environnement de développement intégré spécialement pour Python. Ainsi, les étudiants doivent: 1. Tester les deux modes de travail : interactif et script. 2. Comprendre certains types d'erreur. 3. Comprendre la notion de variable. 4. Commencer à comprendre types en python essentiellement les entiers et les réel.

### Exercice 1

Exécuter tour à tour les instructions suivantes en mode interactif de l'IDLE Python :

[ ]:
```
1+
```

[ ]:
```
1+2
```

[ ]:
```
Ma Variable=False
```

[ ]:
```
Ma$Variable=False
```

[ ]:
```
1+2=3
```

[ ]:
```
print(1+2
```

[ ]:
```
Ma_Variable=True
print(Ma_Variable)
```

[ ]:
```
MaVariable1=1
MaVariable2=2
MaVariable1+MaVariable2
```

[ ]:
```
MaVariable=5
print(id(MaVariable))
print(type(MaVariable))
```

[ ]:
```
MaVariable=6
print(id(MaVariable))
print(type(MaVariable))
```

[ ]:
```
MaVariable=6.
print(id(MaVariable))
print(type(MaVariable))
```

[ ]:
```
MaVariable=6.1
print(id(MaVariable))
print(type(MaVariable))
```

[ ]:
```
MaVariable=6.1e2
print(MaVariable)
print(id(MaVariable))
print(type(MaVariable))
```

[ ]:
```
MaVariable="a"
print(id(MaVariable))
print(type(MaVariable))
```

[ ]:
```
MaVariable='a'
print(id(MaVariable))
print(type(MaVariable))
```

[ ]:
```
MaVariable=True
print(id(MaVariable))
print(type(MaVariable))
```

[ ]:
```
MaVariable=False
print(id(MaVariable))
print(type(MaVariable))
```

[ ]:
```
MaVariable=true
print(id(MaVariable))
print(type(MaVariable))
```

[ ]:
```
MaVariable=2+1j
print(id(MaVariable))
print(type(MaVariable))
```

[ ]:
```
MaVariable="a"+2
print(MaVariable)
```

[ ]:
```
MaVariable="a"+"2"
print(MaVariable)
```

[ ]:
```
MaVariable="a"*"2"
print(MaVariable)
```

```
[ ]: MaVariable="a"*2
     print(MaVariable)
```

```
[ ]: MaVariable="a"/2
     print(MaVariable)
```

```
[ ]: MaVariable=True*3
     print(MaVariable)
```

```
[ ]: MaVariable=False*3
     print(MaVariable)
```

**Exercice 2**

Exécutez tour à tour les instructions suivantes :

```
[ ]: a,b,c=15,2.5,"a"
```

```
[ ]: print("a =",a,"; b =",b,"; c =",c)
```

```
[ ]: print("a =",a,"adresse de a est",id(a),"\nb =",b,"adresse de b est",id(b))
```

```
[ ]: a,b=b,a
```

```
[ ]: print("a =",a,"adresse de a est",id(a),"\nb =",b,"adresse de b est",id(b))
```

**Exercice 3**

Exécutez tour à tour les instructions suivantes en mode interactif :

```
[ ]: division=5/2
```

```
[ ]: division
```

```
[ ]: type(division)
```

```
[ ]: division=5//2
```

```
[ ]: division
```

```
[ ]: type(division)
```

```
[ ]: multiplication=3*2
```

```
[ ]: multiplication
```

```
[ ]: type(multiplication)
```

```
[ ]: multiplication=3*2.0
```

```
[ ]: multiplication
```

```
[ ]: type(multiplication)
```

```
[ ]: puissance=2**3
```

```
[ ]: puissance
```

```
[ ]: type(puissance)
```

```
[ ]: puissance=2**3.1
```

```
[ ]: puissance
```

```
[ ]: type(puissance)
```

```
[ ]: puissance=2.1**3
```

```
[ ]: puissance
```

```
[ ]: type(puissance)
```

```
[ ]: addition=1+2
```

```
[ ]: addition
```

```
[ ]: type(addition)
```

```
[ ]: addition=1+2.1
```

```
[ ]: addition
```

```
[ ]: type(addition)
```

```
[ ]: soustraction=5-2
```

```
[ ]: soustraction
```

```
[ ]: type(soustraction)
```

```
[ ]: soustraction=5.1-2
```

```
[ ]: soustraction
```

```
[ ]: type(soustraction)
```

**Exercice 4**

1. Ecrire tour à tour les instructions suivantes en mode interactif.

```
[ ]: a=2
```

```
[ ]: b=8/3
```

```
[ ]: c=a+b
```

```
[ ]: c
```

```
[ ]: type(c)
```

```
[ ]: x=round(c)
```

```
[ ]: x
```

```
[ ]: y=round(c,2)
```

```
[ ]: y
```

```
[ ]: z=round(2.5)
```

```
[ ]: z
```

```
[ ]: t=round(2.6)
```

```
[ ]: t
```

2. Reprondre les instructions précédentes en mode script.

```
[ ]: a=2
     b=8/3
     c=a+b
     c
     type(c)
     x=round(c)
     x
     y=round(c,2)
     y
     z=round(2.5)
     z
     t=round(2.6)
     t
```

3. Qu'est ce que vous remarquer?
4. A votre avis que devons-nous faire pour voir les résultats?