

Corso ITS: *ARTIFICIAL INTELLIGENCE SPECIALIST*

Modulo: Programmazione Procedurale in Python

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08:30 - 14:30

orienteering in Python

```
In [1]: b = bool()
s = str()
i = int()
f = float()
li = list()
se = set()
di = dict()
```

type()

```
In [5]: print(type(b))
print(type(s))
print(type(i))
print(type(f))
print(type(li))
print(type(se))
print(type(di))
```

```
<class 'bool'>
<class 'str'>
<class 'int'>
<class 'float'>
<class 'list'>
<class 'set'>
<class 'dict'>
```

```
In [6]: print(b)
print(s)
print(i)
print(f)
```

```
0
0.0
[]
set()
{}
```

dir()

- è possibile interrogare i metodi a disposizione
- e così scoprire funzioni utili

```
In [22]: metodi = dir(li)
for metodo in metodi :
    if not metodo.startswith('__') :
        print(metodo)
```

- append
- clear
- copy
- count
- extend
- index
- insert
- pop
- remove
- reverse
- sort

```
In [25]: metodi.reverse()
for metodo in metodi :
    if not metodo.startswith('__') :
        print(metodo)
```

- append
- clear
- copy
- count
- extend
- index
- insert
- pop
- remove
- reverse
- sort

```
In [27]: metodi = dir(di)
         for metodo in metodi :
             if not metodo.startswith('__') :
```

```
print(metodo)
```

```
clear  
copy  
fromkeys  
get  
items  
keys  
pop  
popitem  
setdefault  
update  
values
```

```
In [30]: import math  
print(dir(math))
```

```
['__doc__', '__file__', '__loader__', '__name__', '__package__', '__spec__',  
'acos', 'acosh', 'asin', 'asinh', 'atan', 'atan2', 'atanh', 'ceil', 'comb',  
'copysign', 'cos', 'cosh', 'degrees', 'dist', 'e', 'erf', 'erfc', 'exp', 'ex  
pm1', 'fabs', 'factorial', 'floor', 'fmod', 'frexp', 'fsum', 'gamma', 'gcd',  
'hypot', 'inf', 'isclose', 'isfinite', 'isinf', 'isnan', 'isqrt', 'lcm', 'ld  
exp', 'lgamma', 'log', 'log10', 'log1p', 'log2', 'modf', 'nan', 'nextafter',  
'perm', 'pi', 'pow', 'prod', 'radians', 'remainder', 'sin', 'sinh', 'sqrt',  
'tan', 'tanh', 'tau', 'trunc', 'ulp']
```

```
In [31]: import random  
print(dir(random))
```

```
['BPF', 'LOG4', 'NV_MAGICCONST', 'RECIP_BPF', 'Random', 'SG_MAGICCONST', 'Sy  
stemRandom', 'TWOPI', '_Sequence', '_Set', '__all__', '__builtins__', '__cac  
hed__', '__doc__', '__file__', '__loader__', '__name__', '__package__', '__s  
pec__', '_accumulate', '_acos', '_bisect', '_ceil', '_cos', '_e', '_exp', '_  
floor', '_inst', '_log', '_os', '_pi', '_random', '_repeat', '_sha512', '_si  
n', '_sqrt', '_test', '_test_generator', '_urandom', '_warn', 'betavariate',  
'choice', 'choices', 'expovariate', 'gammavariate', 'gauss', 'getrandbits',  
'getstate', 'lognormvariate', 'normalvariate', 'paretovariate', 'randbytes',  
'randint', 'random', 'randrange', 'sample', 'seed', 'setstate', 'shuffle', '  
triangular', 'uniform', 'vonmisesvariate', 'weibullvariate']
```

RIPASSO GENERALE