# PYTHON - DATOS BÁSICOS

# Integer

### Tipado dinámico Integer

In [ ]: x=45

In [ ]: type(x)

Out[ ]: int

# Float

### Tipado dinámico Float

*In [ ]: y=x/4*

*In [ ]: print(y)*

*11.25*

*In [ ]: type(y)*

*Out[ ]: float*

### Conversión Float -> Integer

*In [ ]: int(y)*

*Out[ ]: 11*

*In [ ]: int(10.95)*

*Out[ ]: 10*

# Complex

### Tipado dinámico Bool

*In [ ]: n = 5 + 3j*

*In [ ]: type(n)*

*Out[ ]: complex*

### Obtención parte Real e Imaginaria

In [ ]: n.real

Out[ ]: 5.0

In [ ]: n.imag

Out[ ]: 3.0

### Obtención Magnitud

In [ ]: abs(n)

Out[ ]: 5.830951894845301

### Conversión a Complex

In [ ]: m = complex (2,7)

In [ ]: m

Out[ ]: (2+7j)

In [ ]: complex(x)

Out[ ]: (45+0j)

In [ ]: complex(y)

Out[ ]: (11.25+0j)

# Bool

### Tipado dinámico Bool

In [ ]: p = True

In [ ]: type(p)

Out[ ]: bool

### Conversión a Bool

In [ ]: bool(0)

Out[ ]: False

In [ ]: bool(x)

Out[ ]: True

In [ ]: bool(y)

Out[ ]: True

In [ ]: bool(0.0)

Out[ ]: False

In [ ]: bool(2+3j)

Out[ ]: True

In [ ]: bool(0+0j)

Out[ ]: False

# String

### Tipado dinámico String

In [ ]: s = 'Introducción a la Ciencia de Datos'

In [ ]: type(s)

Out[ ]: str

### Conversión a String

In [ ]: str(x)

Out[ ]: '45'

In [ ]: str(y)

Out[ ]: '11.25'

In [ ]: str(m)

Out[ ]: '(2+7j)'

In [ ]: str(p)

Out[ ]: 'True'

### Conversión desde String

In [ ]: int('38')

Out[ ]: 38

In [ ]: float('7.5')

Out[ ]: 7.5

In [ ]: complex('6+5j')

Out[ ]: (6+5j)

In [ ]: bool('False')

Out[ ]: True

In [ ]: bool('True')

Out[ ]: True

In [ ]: bool('')

Out[ ]: False

### Caracteres especiales

In [ ]: print('Hola \n Mundo')

Hola

Mundo

In [ ]: print('Hola\t\tMundo')

Hola Mundo

In [ ]: print('Hola \'Mundo\'')

Hola 'Mundo'

### Indexación de String

In [ ]: s[5]

Out[ ]: 'd'

In [ ]: s[-3]

Out[ ]: 't'

In [ ]: s[6:]

Out[ ]: 'ucción a la Ciencia de Datos'

In [ ]: s[:10]

Out[ ]: 'Introducci'

In [ ]: s[10:20]

Out[ ]: 'ón a la Ci'

### Operaciones básicas a String

In [ ]: t=('Hola')

In [ ]: u=('Mundo')

In [ ]: v=t+u

In [ ]: print(v)

HolaMundo

In [ ]: v= t+' '+u

In [ ]: print(v)

Hola Mundo

In [ ]: v+=' Cruel'

In [ ]: print(v)

Hola Mundo Cruel

In [ ]: w='Hola '\*3

In [ ]: print(w)

Hola Hola Hola

In [ ]: len(s)

Out[ ]: 34

### Métodos de String

In [ ]: s.upper()

Out[ ]: 'INTRODUCCIÓN A LA CIENCIA DE DATOS'

In [ ]: s.lower()

Out[ ]: 'introducción a la ciencia de datos'

In [ ]: s.capitalize()

Out[ ]: 'Introducción a la ciencia de datos'

In [ ]: s.swapcase()

Out[ ]: 'iNTRODUCCIÓN A LA cIENCIA DE dATOS'

In [ ]: s.replace(' ','')

Out[ ]: 'IntroducciónalaCienciadeDatos'

In [ ]: s.count('a')

Out[ ]: 4

In [ ]: s.find('a')

Out[ ]: 13

In [ ]: s.split(' ')

Out[ ]: ['Introducción', 'a', 'la', 'Ciencia', 'de', 'Datos']

In [ ]: s.split('a')

Out[ ]: ['Introducción ', ' l', ' Cienci', ' de D', 'tos']

In [ ]: s.startswith('i')

Out[ ]: False

In [ ]: s.startswith('I')

Out[ ]: True

In [ ]: r='Hola Mundo'

In [ ]: r.isalpha()

Out[ ]: False

In [ ]: r='HolaMundo'

In [ ]: r.isalpha()

Out[ ]: True