소프트웨어융합학과 20171703 정태원

2020-03-24 수치해석 과제1

머신러닝을 시작합니다.

In [1]:

```
a=1
b=3
a / b
```

Out[1]:

```
0.3333333333333333
```

In [2]:

```
1+2
```

Out[2]:

```
3
```

In [3]:

```
(1+2*3-4)/5
```

Out[3]:

```
0.6
```

In [4]:

```
2**3
```

Out[4]:

```
8
```

In [5]:

```
x=1
y=1/3
x+y
```

Out[5]:

```
1.3333333333333333
```

In [6]:

```
Data_1 = 1/5
Data_2 = 3/5
Data_1 + Data_2
```

Out[6]:

```
0.8
```

In [8]:

```
a = (1,2,3,4)
type(a)
```

Out[8]:

```
tuple
```

In [10]:

```
b = (2)
type(b)
```

Out[10]:

```
int
```

In [11]:

```
x = 1/3
print(x)
y = 1/5
print(y)
```

```
0.3333333333333333
0.2
```

In [12]:

```
print("x="+ str(x))
```

```
x=0.3333333333333333
```

In [13]:

```
print('weight = {0}kg'.format(x))
```

```
weight = 0.3333333333333333kg
```

In [15]:

```
x =1/3
y =1/7
z = 1/4
print('weight:{0}kg {1}kg {2}kg'.format(x, y ,z))
```

```
weight:0.3333333333333333kg 0.25kg 0.14285714285714285kg
```

In [18]:

```
print('weight:{0:.2f}kg{1:.2f}kg{2:.2f}kg'.format(x, y, z))
```

```
weight:0.33kg0.14kg0.25kg
```

In [19]:

```
x = [1,1,2,3,5]#list 정의
print(x)
```

```
[1, 1, 2, 3, 5]
```

In [20]:

```
type(x)
```

Out[20]:

```
list
```

In [21]:

```
x[0]
```

Out[21]:

```
1
```

In [22]:

```
x[1]
```

Out[22]:

```
1
```

In [23]:

```
print(type(x))
print(type(x[1]))
```

```
<class 'list'>
<class 'int'>
```

In [24]:

```
s =['SUN',1,'MON', 2]
print(type(s[0]))
print(type(s[1]))
```

```
<class 'str'>
<class 'int'>
```

2.5.2 2차원 배열

In [1]:

```
a = [[1, 2, 3],[4, 5, 6]]
print(a)
```

```
[[1, 2, 3], [4, 5, 6]]
```

In [2]:

```
a  = [[1,2,3],[4,5,6]]
print(a[0][1])
```

```
2
```

In [3]:

```
x = [1,1,2,3,5]
x[3] = 100
print(x)
```

```
[1, 1, 2, 100, 5]
```

In [4]:

```
len(x)
```

Out[4]:

```
5
```

2.5.4 연속된 정수 데이터의 작성

In [5]:

```
y = range(5, 10)
print(y[0], y[1], y[2], y[3], y[4])
type(y)
```

```
5 6 7 8 9
```

Out[5]:

```
range
```

In [6]:

```
print(y)
```

```
range(5, 10)
```

In [8]:

```
z = list(range(5,10))
print(z)
```

```
[5, 6, 7, 8, 9]
```

In [9]:

```
list(range(10))
```

Out[9]:

```
[0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
```

In [10]:

```
a=(1,2,3)
print(a)
```

```
(1, 2, 3)
```

In [11]:

```
type(a)
```

Out[11]:

```
tuple
```

In [12]:

```
a[1]
```

Out[12]:

```
2
```

2.6.3

In [13]:

```
a = (1)
type(a)
```

Out[13]:

```
int
```

In [14]:

```
a =(1,)
type(a)
```

Out[14]:

```
tuple
```

2.7 if 문

In [ ]:

```
x = 11
if x> 10:
    print('x is')#...(A1)
    print('larger than 10.')#...(A2)
else:
    print('x is smaller than 11')#...(B1)
```

In [18]:

```
x > 10
```

Out[18]:

```
True
```

In [19]:

```
type(x > 10)
```

Out[19]:

```
bool
```

2.7.2 비교 연산자

In [22]:

```
 x = 15
if 10<=x and x<=20:
    print('x is between 10 and 20')
```

```
x is between 10 and 20
```

2.8 for 문

In [23]:

```
for i in [1,2,3]:
    print(i)
```

```
1
2
3
```

In [24]:

```
num = [2,4,6,8,10]
for i in range(len(num)):
    num[i] = num[i]*2
print(num)
```

```
[4, 8, 12, 16, 20]
```

2.8.2 enumerate의 이용

In [26]:

```
num = [2, 4, 6, 8 ,10]
for i,n in enumerate(num):
    num[i] =  n*2
print(num)
```

```
[4, 8, 12, 16, 20]
```

Out[26]:

```
enumerate
```

2.9 벡터

In [27]:

```
[1,2] + [3,4]
```

Out[27]:

```
[1, 2, 3, 4]
```

In [ ]:

```

```

In [ ]:

```

```