⌄ 축구 이적시장 데이터를 활용한 데이터 시각화 및 머신러닝 분석

- Developed by Dr. Keungoui KIM
- https://github.com/awekim

1. 파이썬 프로그래밍

```
print("Hello")
```

⇥ Hello

```
1+1
```

⇥ 2

```
import pandas as pd
```
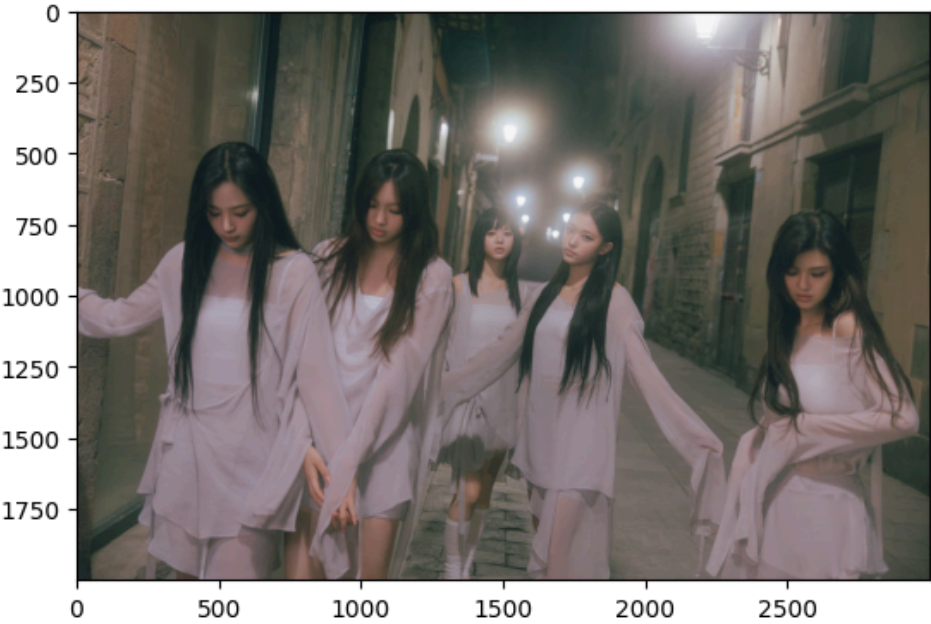
Hi

⌄ Hi

Hi

Hi

My name is **Big Data**

```
/content/drive/MyDrive/PythonFootball/01_Python
```

```
import matplotlib.pyplot as plt
import matplotlib.image as mpimg
img = mpimg.imread('/content/drive/MyDrive/PythonFootball/01_Python/nj.jpg')
plt.imshow(img)
```

```
<matplotlib.image.AxesImage at 0x7ce73432d240>
```


Heading 1

Heading 2

Heading 3

Heading 4

Heading 5

Heading 6

bold

bold

italic

italic

~~strike~~

<u>underbar</u>

"""bold***

bold

> Quotation 1
>> Quotation 2
>>> Quotation 3

[HGU](#)

⌄ Welcome to [Handong Global University](#).

> Introduction
>
> - Name: Keungoui **KIM**
>
> - Age: 21
>
> - MBTI: ABCD
>
> - Major: Communication
>
> - Tier: ??

⌄ 데이터 구조

```
my_list = [1, 1, 4, 5, "Yes", [2, 4]]
my_list
```

    [1, 1, 4, 5, 'Yes', [2, 4]]

```
list("Yes")
```

    ['Y', 'e', 's']

```
type(my_list)
```

    list

```
my_list.append("HGU")
my_list
```

    [1, 1, 4, 5, 'Yes', [2, 4], 'HGU']

```
len(my_list)
```

    7

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

    [1, 2, 3, 4]

```
aa, bb, cc, dd = num_list
print(aa, bb, cc, dd)
```

    1 2 3 4

```
dd
```

dd

→ 4

```
midterm_score = [84, 23, 92, 17, 88]
assignment_score = [88, 87, 90, 88, 89]
final_score = [71, 99, 78, 89, 82]

total_score = [midterm_score, assignment_score, final_score]
total_score
```

```
my_dict = {'Name':'Kim',
           'Nationality':'Korea',
           'Age':21,
           'BigData':'A+'}
print(my_dict)
```

→ `{'Name': 'Kim', 'Nationality': 'Korea', 'Age': 21, 'BigData': 'A+'}`

```
type(my_dict)
```

```
len(my_dict)
```

→ 4

```
my_dict.keys()
```

→ `dict_keys(['Name', 'Nationality', 'Age', 'BigData'])`

```
my_dict.values()
```

→ `dict_values(['Kim', 'Korea', 21, 'A+'])`

```
my_dict = {'Name':'Kim', 'Nationality':'Korea', 'Age':21, 'BigData':'A+'}
my_dict['gender']='M'
my_dict['BigData']='B+'
print(my_dict)
```

⌄ 인덱싱 & 슬라이싱

```
my_list = ["Yes","No", 1, 1, 4, 5, [2, 4]]
my_list
```

→ `['Yes', 'No', 1, 1, 4, 5, [2, 4]]`

```
my_list[0]
```

→ `'Yes'`

```
my_list[0] + my_list[1]
```

'YesNo'

```
my_list[2] + my_list[3]
```

2

```
my_list[0:2]
```

['Yes', 'No']

```
my_list[:2]
```

['Yes', 'No']

```
my_list[-1]
```

[2, 4]

```
my_list[-1][0]
```

2

⌄ 모듈

```
import pandas
```

```
pandas.
```

```
import pandas as pd
```

```
pd.
```

```
from pandas import DataFrame
```

```
DataFrame.
```

```
import pandas as pd
```

```
pd.DataFrame.
```

⌄ 조건문

```python
a = 1
if a == 1:
  print("Hello")
  print("I'm Kim")
```

```python
a = 2
if a == 1:
  print("Hello")
  print("I'm Kim")
```

```python
a = 2
if a ==1:
  print("Hello")
print("I'm Kim")
```

```python
temperature = int(input("What is your body temperature? "))

if temperature >= 37.5:
  print("Need PCR test.")
else:
  print("You are safe.")
```

```python
x=11
if x>0 and x<10:
  print("x is greater than 0 and less than 10.")
```

﹀ 반복문

```python
i = 0
while i < 10:
  print(i)
  i = i + 1
print('last value: ', i)
```

```python
value = 100
while 0 < value:
  value = value-5
  print(value)
print("last value=",value)
```

```python
value = 100
while 0 < value:
  print(value)
  value = value-5
print("last value=",value)
```

```python
i = 1
while i < 10:
  print(i)
  i=i-1
print("last i", i)
```

```python
for i in [1,2,3,4,5]:
  print(i)
```

```python
for i in range(5):
  print(i)
```

```python
for i in range(10):
  print(i)
```

```python
for i in ['Apple','Samsung','Google','LG']:
  print(i)
  print('i')
```