Azure Cognitive Service - Computer Vision(Face Test)

In [1]:

```
#cell1
import json, os, requests
from io import BytesIO
from PIL import Image, ImageDraw
from IPython.display import display
```

In [2]:

```
#cell2
# 생성한 Face 서비스의 키값
subscription_key = '2605699beb04465da6daa63b373a7da4'
```

In [3]:

```
#cell3
# 생성한 Face 서비스의 Endpoint
endpoint = 'https://face--06.cognitiveservices.azure.com/'
```

In [4]:

```
#cell4
# Face API Url
face_api_url = endpoint + '/face/v1.0/detect'
```

In [5]:

```
#cell5
# Sample Image Url
image_url = 'https://raw.githubusercontent.com/Azure-Samples/cognitive-services-sample-data-files/ma
```

In [6]:

```
#cell6
# Image Show
response = requests.get(image_url)
img = Image.open(BytesIO(response.content))
display(img)
```

In [7]:

```
#cell7
# Rest API Header에 key 정보 담기
headers = {
    'Ocp-Apim-Subscription-Key': subscription_key,
    'Content-Type': 'application/json; charset=utf8'
}
```

In [8]:

```
#cell8
## 얼굴 감지하기
# Face API Parameter
params = {
    'detectionModel': 'detection_01',
    'returnFaceId': 'true',
    'recognitionModel': 'recognition_03'
}
```

In [9]:

```
#cell9
# Face API 호출
response = requests.post(face_api_url, params=params,
                         headers=headers, json={"url": image_url})
```

In [10]:

```
#cell10
# Json 결과 Viewing
json_res = response.json()
# json_res_str = json.dumps(response.json())
print(json_res)
```

```
[{'faceId': 'bfe14388-a3e7-4ae5-a25f-984821cd9d15', 'faceRectangle': {'top': 159, 'l
eft': 118, 'width': 94, 'height': 94}}, {'faceId': '95ffe374-cf4e-48c1-a55c-3283376a
7ffc', 'faceRectangle': {'top': 111, 'left': 492, 'width': 90, 'height': 90}}, {'fac
eId': '5f39969c-ad8c-4990-9872-d63eeab7a4c6', 'faceRectangle': {'top': 153, 'left':
18, 'width': 84, 'height': 84}}, {'faceId': 'ed2b4331-b2b4-4e43-8e2c-e1ff0661a440',
'faceRectangle': {'top': 166, 'left': 386, 'width': 81, 'height': 81}}, {'faceId':
'afd3f1f8-4c81-4883-9ce8-a568c88ce6e7', 'faceRectangle': {'top': 158, 'left': 235,
'width': 76, 'height': 76}}, {'faceId': '8a443e1d-fcde-4364-84bb-432859ce51ef', 'fac
eRectangle': {'top': 163, 'left': 323, 'width': 68, 'height': 68}}]
```

In [11]:

```
#cell11
# Face API 호출 결과 Bounding box 표현
draw = ImageDraw.Draw(img)

for e in json_res:
    rec_obj = e["faceRectangle"]
    print(rec_obj)
    x1 = int(rec_obj["left"])
    y1 = int(rec_obj["top"])
    x2 = x1 + int(rec_obj["width"])
    y2 = y1 + int(rec_obj["height"])
    draw.rectangle((x1,y1,x2,y2), outline='red')

display(img)
```

```
{'top': 159, 'left': 118, 'width': 94, 'height': 94}
{'top': 111, 'left': 492, 'width': 90, 'height': 90}
{'top': 153, 'left': 18, 'width': 84, 'height': 84}
{'top': 166, 'left': 386, 'width': 81, 'height': 81}
{'top': 158, 'left': 235, 'width': 76, 'height': 76}
{'top': 163, 'left': 323, 'width': 68, 'height': 68}
```