In [1]:

```
pip install --upgrade azure-cognitiveservices-vision-computervision
```

```
Requirement already satisfied: azure-cognitiveservices-vision-computervision in c:\users\
admin\anaconda3\lib\site-packages (0.9.0)
Requirement already satisfied: azure-common~=1.1 in c:\users\admin\anaconda3\lib\site-pac
kages (from azure-cognitiveservices-vision-computervision) (1.1.28)
Requirement already satisfied: msrest>=0.5.0 in c:\users\admin\anaconda3\lib\site-package
s (from azure-cognitiveservices-vision-computervision) (0.7.1)
Requirement already satisfied: azure-core>=1.24.0 in c:\users\admin\anaconda3\lib\site-pa
ckages (from msrest>=0.5.0->azure-cognitiveservices-vision-computervision) (1.26.4)
Requirement already satisfied: certifi>=2017.4.17 in c:\users\admin\anaconda3\lib\site-pa
ckages (from msrest>=0.5.0->azure-cognitiveservices-vision-computervision) (2022.9.14)
Requirement already satisfied: requests~=2.16 in c:\users\admin\anaconda3\lib\site-packag
es (from msrest>=0.5.0->azure-cognitiveservices-vision-computervision) (2.28.1)
Requirement already satisfied: isodate>=0.6.0 in c:\users\admin\anaconda3\lib\site-packag
es (from msrest>=0.5.0->azure-cognitiveservices-vision-computervision) (0.6.1)
Requirement already satisfied: requests-oauthlib>=0.5.0 in c:\users\admin\anaconda3\lib\s
ite-packages (from msrest>=0.5.0->azure-cognitiveservices-vision-computervision) (1.3.1)
Requirement already satisfied: six>=1.11.0 in c:\users\admin\anaconda3\lib\site-packages
(from azure-core>=1.24.0->msrest>=0.5.0->azure-cognitiveservices-vision-computervision) (
1.16.0)
Requirement already satisfied: typing-extensions>=4.3.0 in c:\users\admin\anaconda3\lib\s
ite-packages (from azure-core>=1.24.0->msrest>=0.5.0->azure-cognitiveservices-vision-comp
utervision) (4.3.0)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in c:\users\admin\anaconda3\lib\site
-packages (from requests~=2.16->msrest>=0.5.0->azure-cognitiveservices-vision-computervis
ion) (1.26.11)
Requirement already satisfied: charset-normalizer<3,>=2 in c:\users\admin\anaconda3\lib\s
ite-packages (from requests~=2.16->msrest>=0.5.0->azure-cognitiveservices-vision-computer
vision) (2.0.4)
Requirement already satisfied: idna<4,>=2.5 in c:\users\admin\anaconda3\lib\site-packages
(from requests~=2.16->msrest>=0.5.0->azure-cognitiveservices-vision-computervision) (3.3)
Requirement already satisfied: oauthlib>=3.0.0 in c:\users\admin\anaconda3\lib\site-packa
ges (from requests-oauthlib>=0.5.0->msrest>=0.5.0->azure-cognitiveservices-vision-compute
rvision) (3.2.2)
Note: you may need to restart the kernel to use updated packages.
```

In [2]:

```
pip install pillow
```

```
Requirement already satisfied: pillow in c:\users\admin\anaconda3\lib\site-packages (9.2.
0)
Note: you may need to restart the kernel to use updated packages.
```

In [3]:

```
from azure.cognitiveservices.vision.computervision import ComputerVisionClient
from azure.cognitiveservices.vision.computervision.models import OperationStatusCodes
from azure.cognitiveservices.vision.computervision.models import VisualFeatureTypes
from msrest.authentication import CognitiveServicesCredentials

from array import array
import os
from PIL import Image, ImageDraw, ImageFont
import sys
import time
import io
from IPython.display import display
```

In [4]:

```
subscription_key='c2f799dc08a54dae95950b97a3384cbc'
endpoint='https://senatask4-1p.cognitiveservices.azure.com/'
computervision_client = ComputerVisionClient(endpoint, CognitiveServicesCredentials(subsc
ription_key))
```

In [5]:

```
image_path = 'image1.jpg'
image = Image.open(image_path)
image
```

Out[5]:

In [6]:

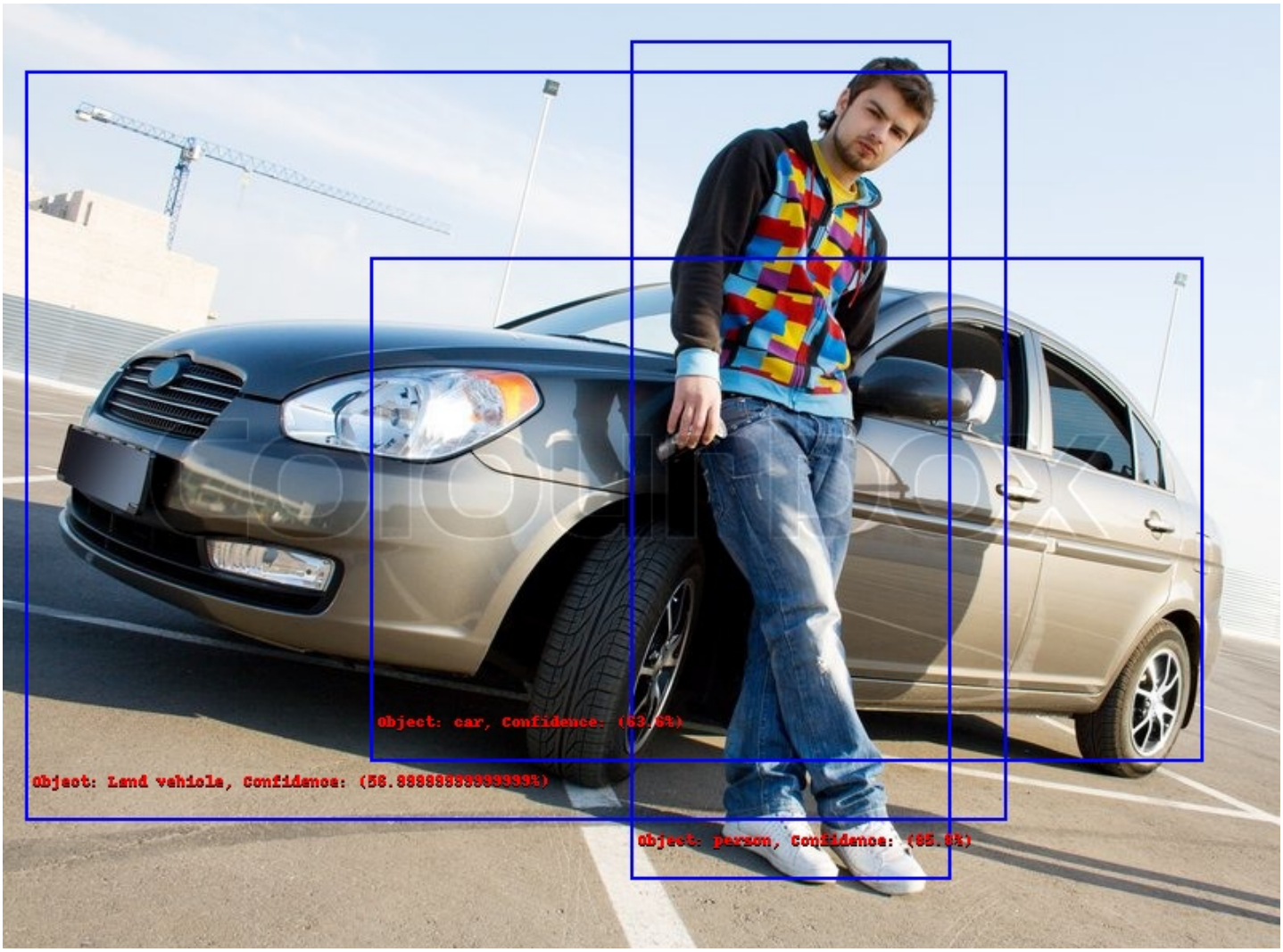
```
image_draw = ImageDraw.Draw(image)
with open(image_path, mode = 'rb') as image_stream:
    image_stream = io.BytesIO(image_stream.read())
    results = computervision_client.detect_objects_in_stream(image_stream)
    for object in results.objects:

        left = object.rectangle.x
        top = object.rectangle.y
        height = object.rectangle.h
        width = object.rectangle.w

        shape = [(left,top),(left + width, top + height)]
        image_draw.rectangle(shape, outline='blue', width=2)

        text = f'Object: {object.object_property}, Confidence: ({object.confidence * 100
}%)'
        print(text)
        image_draw.text((left + 5, top + height - 30 + 1), text, (0,0,0))
        image_draw.text((left + 5, top + height - 30), text, (255,0,0))
```

```
Object: person, Confidence: (85.8%)
Object: car, Confidence: (63.6%)
Object: Land vehicle, Confidence: (56.99999999999999%)
```

In [7]:

```
image
```

Out[7]:


Object: car, Confidence: (63.6%)
Object: Land vehicle, Confidence: (56.999999999999993%)
Object: person, Confidence: (85.8%)

In [ ]: