

```
In [1]: from orb import *
```

```
In [2]: ref_path = os.getcwd() + '/referenceImages'
        query_path = os.getcwd() + '/queryImages'
```

```
In [3]: #list of file names in reference image folder
        ref_images = os.listdir(ref_path)
```

```
In [4]: #creating descriptors for reference images
        ref_desc = create_descriptors(ref_images)
```

```
100%|██████████| 758/758 [01:53<00:00, 6.69it/s]
```

```
In [5]: query_images = []
        #creating list of query image locations
        for x in os.listdir(query_path)[1:
                                     ]:
            query_images.append(query_path + '/' + x)
```

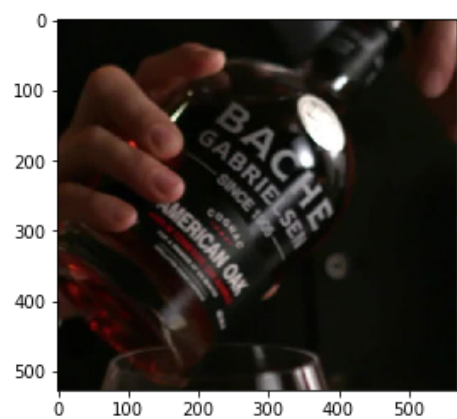
```
In [6]: print(f'Number of query images: {len(query_images)}')
```

```
Number of query images: 11
```

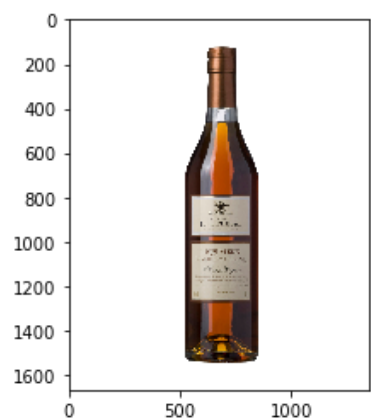
Running Image Retrieval Tests on Query Images

```
In [7]: #unable to find match, rotated image
image_retrieval(query_images[0], ref_desc=ref_desc)
```

Query Image:

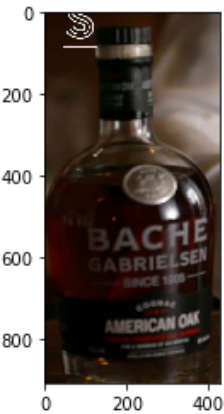


Closest Match:
jean-fillioux-tres-vieux-[size].png



```
In [8]: #correct on 2nd highest match
image_retrieval(query_images[1], ref_desc=ref_desc, match_num=1)
```

Query Image:



Closest Match:
bache-gabrielsen-american-oak-2.jpeg

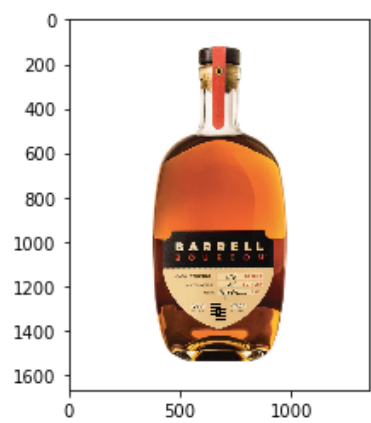


```
In [9]: #correct on first match
image_retrieval(query_images[2], ref_desc=ref_desc)
```

Query Image:



Closest Match:
Barrell Bourbon Batch 016-750ml.png



```
In [10]: #correct on first match
         image_retrieval(query_images[3], ref_desc=ref_desc)
```

Query Image:



Closest Match:

Ad-Laws-bottled-in-bond.png



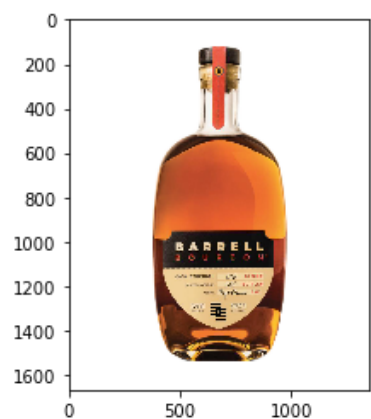
```
In [11]: #correct on first match
image_retrieval(query_images[4], ref_desc=ref_desc)
```

Query Image:



Closest Match:

Barrell Bourbon Batch 016-750ml.png



```
In [12]: #correct on first match
image_retrieval(query_images[5], ref_desc=ref_desc)
```

Query Image:



Closest Match:

bache-gabrielsen-american-oak-cognac-[size].png

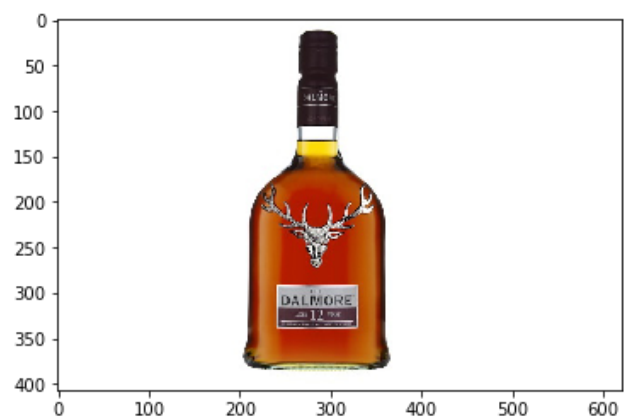


```
In [13]: #correct on first match  
image_retrieval(query_images[6], ref_desc=ref_desc, match_num=0)
```

Query Image:



Closest Match:
dalmore-12-3.jpeg




```
In [14]: #correct on first match
         image_retrieval(query_images[7], ref_desc=ref_desc)
```

Query Image:



Closest Match:

Ad-Laws-bottled-in-bond.png

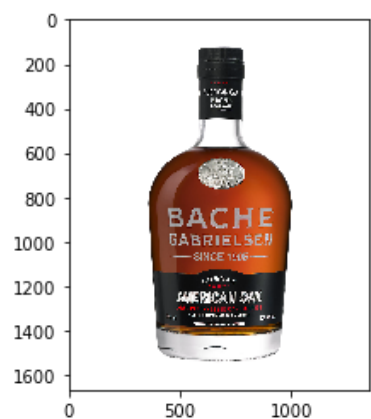


```
In [15]: #correct on first match
image_retrieval(query_images[8], ref_desc=ref_desc)
```

Query Image:



Closest Match:
bache-gabrielsen-american-oak-cognac-[size].png



```
In [16]: #blurry image, unable to find match
         image_retrieval(query_images[9], ref_desc=ref_desc)
```

Query Image:



Closest Match:

sagamore-rye-double-oak-[size].png



```
In [17]: #correct on first match
image_retrieval(query_images[10], ref_desc=ref_desc)
```

Query Image:



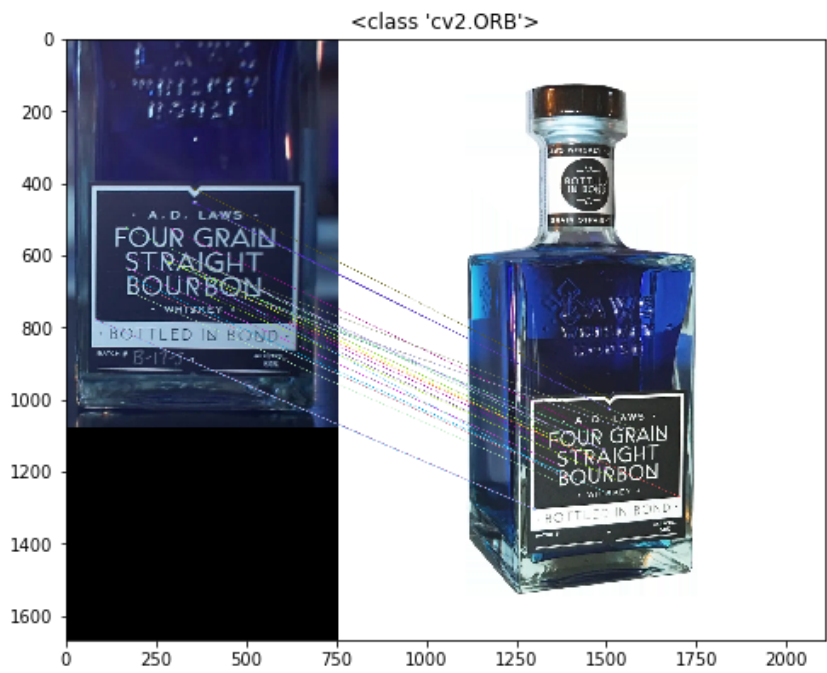
Closest Match:

Ad-Laws-bottled-in-bond.png

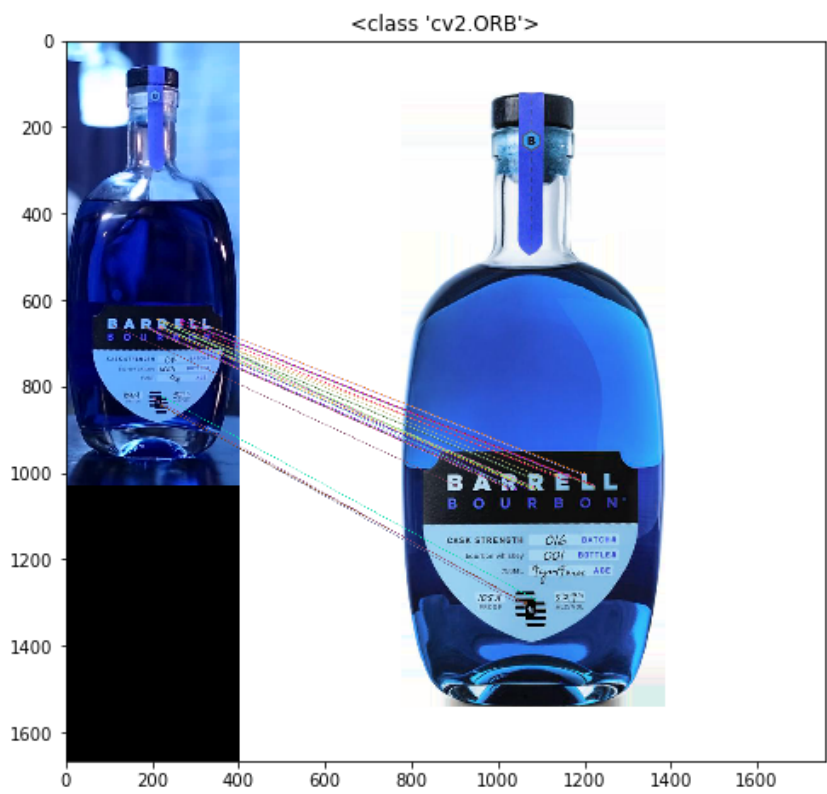


Drawing lines between top 30 matches on images

```
In [18]: image_1 = query_path + '/0.jpg'  
image_2 = ref_path + '/Ad-Laws-bottled-in-bond.png'  
draw_matches(image_1, image_2, 30)
```



```
In [19]: image_1 = query_path + '/10.jpg'  
image_2 = ref_path + '/Barrell Bourbon Batch 016-750ml.png'  
draw_matches(image_1, image_2, 30)
```



```
In [ ]: 
```