

Brian — PS 19 — 2025-04-18 — Solution

EWL3 Sections 43 and 44

Exercises from EWL3 Section 43

```
(* There were no excercises for Section 43,  
so I did some simple experimentation: *)  
bin = CreateDatabin[]
```

```
In[1]:= Databin[  Short ID: 1uHI4U631 ]  
Entry count: 2
```

```
In[2]:= DatabinAdd[bin, {1, 2}]
```

```
In[2]:= Databin[  Short ID: 1uHI4U631 ]  
Entry count: 2
```

```
In[3]:= DatabinAdd[bin, {3, 4}]
```

```
In[3]:= Databin[  Short ID: 1uHI4U631 ]  
Entry count: 2
```

```
In[4]:= Values[bin]
```

```
Out[4]= {{1, 2}, {3, 4}}
```

```
In[5]:= cloudObject = CloudPut[  ["Image"] ]
```

```
Out[5]= CloudObject[https://www.wolframcloud.com/obj/ad9e966b-cd8b-40a5-b6e4-18bedf947eed]
```

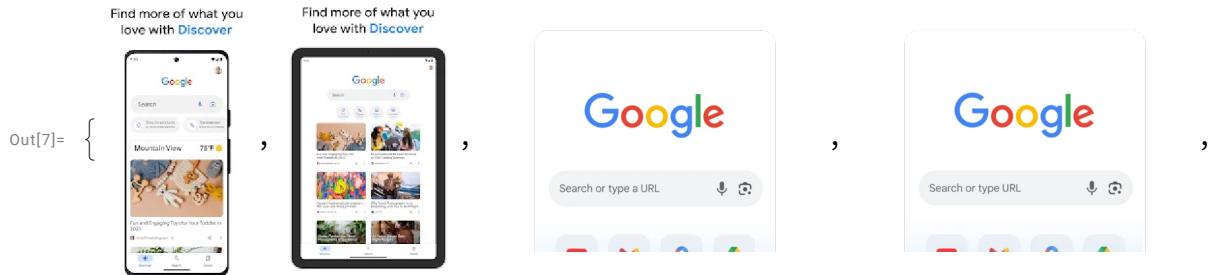
```
In[6]:= CloudGet[cloudObject]
```



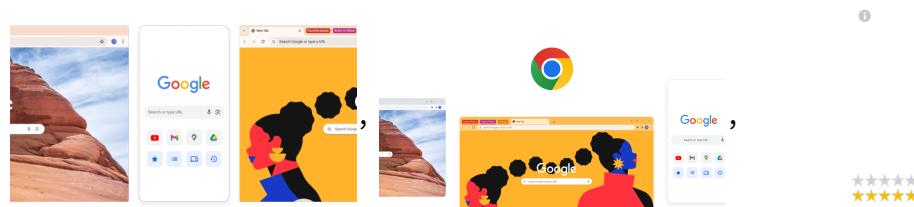
```
Out[6]=
```

Exercises from EWL3 Section 44

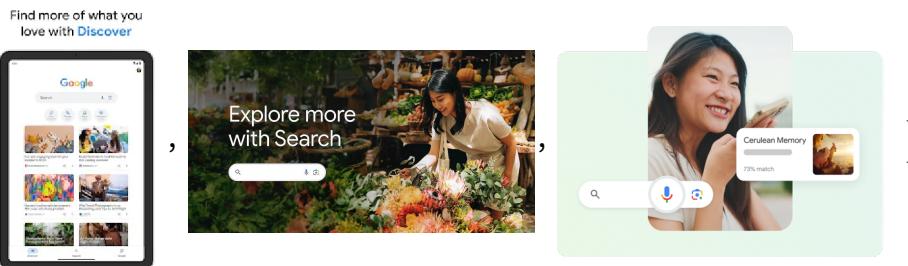
In[7]:= (* 44.1 *) WebImageSearch["https://www.google.com"]



Google



Google



In[20]:= (* 44.2 *)

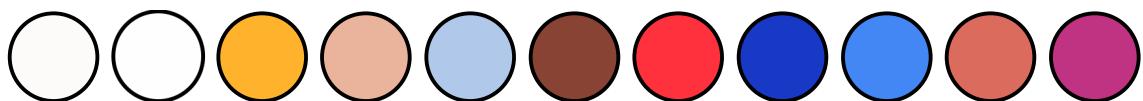
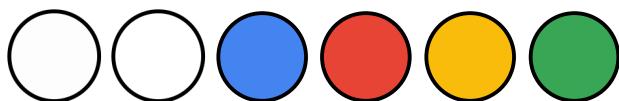
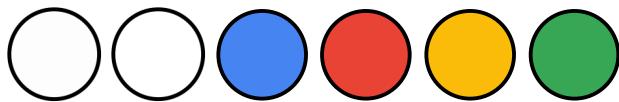
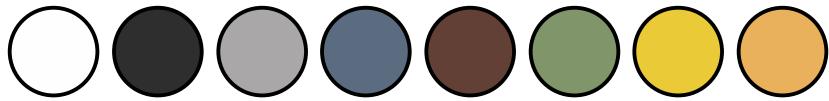
```
dominantColors = DominantColors /@ WebImageSearch["https://www.google.com"];
```

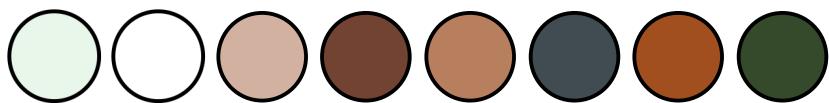
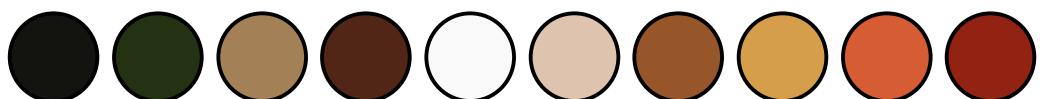
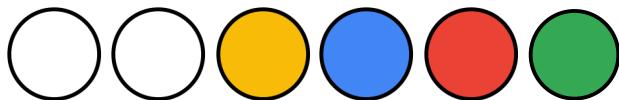
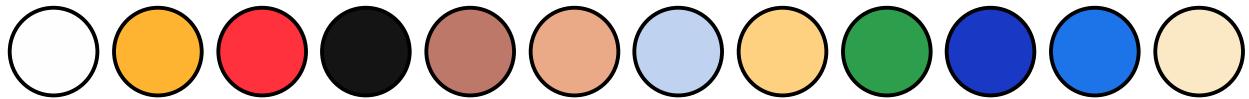
In[21]:= (* I prettified the output a little with EdgeForm[] and Grid[]: *)

```
Map[Graphics[{#, EdgeForm[Thick], Disk[]}]] &, dominantColors, {2}] // Grid
```

Out[21]=







```
(* 44.3 *) bbcText = Import["https://bbc.co.uk"];  
WordCloud[TextWords[bbcText]]
```

Out[29]=



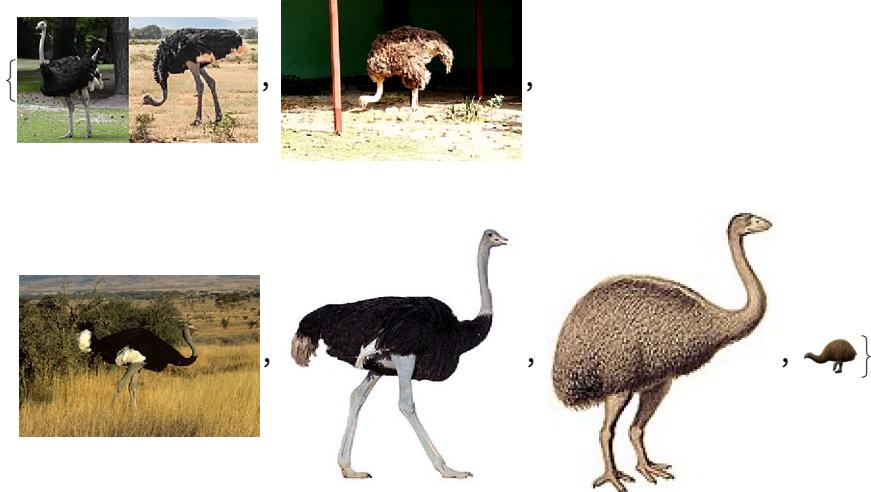
```
In[32]:= (* 44.4 *) npsImages = Import["https://nps.gov", "Images"];
ImageCollage[npsImages]
```

Out[33]=



```
In[41]:= (* 44.5 *)
ostrichPageImages = Import["https://en.wikipedia.org/wiki/Ostrich", "Images"];
Select[ostrichPageImages, ImageInstanceQ[#, "bird"] &]
```

Out[42]=



In[53]:= (* 44.6 *)

```
natoTextWords = TextWords[Import["https://en.wikipedia.org/wiki/NATO"]];
(* Programmatic access to nato.int is blocked,
so I switched to the Wikipedia. *)
Flatten[TextCases[natoTextWords, "Country"]]
(* Also, I don't understand why I am getting
all these empty lists along with the countries *)
```

Out[54]=

```
{Bosnia, Herzegovina, Kosovo, Afghanistan, Iraq, Libya, Turkish, Deutsch, Fiji,
Français, Indonesia, Nederlands, Belgium, Albania, Belgium, Bulgaria, Canada,
Croatia, Czech, Denmark, Estonia, Finland, France, Germany, Greece, Hungary,
Iceland, Italy, Latvia, Lithuania, Luxembourg, Montenegro, Netherlands,
Macedonia, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden,
Turkey, US, US, US, American, Belgium, Belgium, Sweden, Bosnia, Herzegovina,
Georgia, Ukraine, Russia, France, Germany, America, Canada, Portugal, Italy,
Norway, Denmark, Iceland, Canadian, Germany, Korean, Greece, Turkey, Germany,
US, France, Spain, Germany, Germany, Bosnia, Russia, Hungary, Poland, Czech,
Afghanistan, Iraq, France, France, S, Russian, Crimea, Iraq, Syrian, Estonia,
Latvia, Lithuania, Poland, Russian, Ukraine, Bulgaria, Hungary, Romania,
Slovakia, Russian, Bulgaria, Romania, Hungary, Slovakia, Poland, Bulgaria, Spain,
Netherlands, US, Iraqi, Kuwait, Turkey, Bosnia, Herzegovina, Bosnia, Herzegovina,
Bosnian, Bosnia, Herzegovina, Bosnian, Serb, Bosnian, Serb, US, Serbs, Serb,
Kosovo, Kosovo, Kosovo, Serbian, Albanian, Kosovo, US, Albania, Albania, Kosovo,
Chinese, US, UK, Serbia, France, US, UK, Russia, China, Kosovo, Kosovo, Albanian,
Macedonia, Afghanistan, Afghanistan, Germany, Netherlands, S, Afghanistan,
Afghan, Afghanistan, Afghanistan, US, France, Afghanistan, Afghanistan, Afghan,
```

Afghan, Afghanistan, Afghanistan, Afghan, Iraq, Iraq, S, Iraq, Iraqi, US, Iraqi, Iraqi, Iraq, Iraqi, US, Turkey, Iraq, Turkey, Syrian, Turkish, Turkey, Syria, Iraq, Somalia, Russia, China, Korea, Indian, Libya, Libya, Libyan, Libyan, Libya, Libya, Qatar, US, Poland, Spain, Netherlands, Turkey, Germany, Norway, Libyan, Turkish, S, Turkey, Turkey, Syrian, Turkish, Turkish, Syrian, Turkish, Syria, Syrian, Turkish, Turkey, Turkey, Syria, Syrian, Russian, Turkish, Russia, Albania, Belgium, Bulgaria, Canada, Croatia, Czech, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, Montenegro, Netherlands, Macedonia, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Turkey, Albania, Belgium, Bulgaria, Canada, Croatia, Czech, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, Montenegro, Netherlands, Macedonia, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Turkey, Bosnia-Herzegovina, Australia, Georgia, Jordan, Ukraine, Armenia, Azerbaijan, Bosnia-Herzegovina, Georgia, Kazakhstan, Moldova, Serbia, Ukraine, Armenia, Austria, Azerbaijan, Belarus, Bosnia-Herzegovina, Georgia, Ireland, Kazakhstan, Kyrgyzstan, Malta, Moldova, Russia, Serbia, Switzerland, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, Algeria, Egypt, Israel, Jordan, Mauritania, Morocco, Tunisia, Bahrain, Kuwait, Qatar, Australia, Colombia, Iraq, Japan, Mongolia, Pakistan, Korea, America, America, Turkey, Belgian, Congo, Algeria, Nordic, Denmark, Iceland, Norway, Denmark, S, Greenland, France, France, France, Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, Netherlands, Norway, Portugal, Greece, Turkey, Germany, Spain, Germany, Germany, Hungary, Poland, Czech, Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia, Slovenia, Albania, Croatia, Montenegro, Macedonia, Finland, Sweden, Russia, Ukraine, Ukraine, Ukraine, Ukraine, Russia, Crimea, Ukraine, Ukraine, Ukraine, Ukraine, Russian, Ukraine, Russian, Ukraine, Ukraine, Ukraine, Ukraine, Ukraine, Ukraine, Ukraine, Ukraine, Russia, Russia, Russia, Russia, Ukraine, Ukraine, Russia, Ukraine, Ukraine, Ukraine, Russia, US, Russia, Ukraine, Finland, Russia, US, Russians, Poland, Russia, Russia, Poles, Russia, Poles, US, Poland, Serbia, Montenegro, China, Germany, Canada, Jordan, Afghanistan, EU, EU, EU, Israel, Qatar, Qatar, Japan, Australia, China, Australia, Japan, Korea, Colombia, American, France, France, Iraqi, Australia, Australia, Greece, Turkey, Russia, Australia, Canada, American, Britain, Luxembourg, Canada, Germany, France, Spain, US, S, Ukraine, US, Kosovo, Macedonia, UK, S, S, Poland, Ukraine, Spain, Spain, Bulgaria, EU, Russia, Deutsche, Serbs, Kosovo, Kosovo, Kosovo, Kosovo, Macedonia, Kosovo, Afghanistan, Afghanistan, Afghanistan, France, France, Afghan, Afghanistan, Afghanistan, US, Afghanistan, Afghanistan, EU, Deutsche, Afghanistan, Deutsche, Afghanistan, Iraq, Syria, Turkey, Turkey, Syrian, Libya, Libya, Libya, Canadian, Libya, Libya, UAE, Qatar, Libya, Malaysia, Libya, US, Libya, Norway, Libya, Malta, Libya, Britain, Libya, Libya, Libya, USA, Libya, Libya, Turkey, Syrian, Syria, Turkey, Syria, Turkey, Turkey, Syrian, Turkey, S, Syria, Russia, Turkish, Greece, Turkey, Syria, Russian, Syrian, Syrian, Turkish, Denmark, Macedonia, Russia, Finland, Ukraine, Ukraine, France, Ukraine, Ukraine, EU, EU, Russia,

Ukraine, Russian, Ukraine, Russia, Ukraine, Russia, Ukraine, Russia, Russia, Ukraine, US, Russia, Ukraine, Ukraine, Russia, Georgia, Russian, American, Russia, Poland, Turkey, Poland, USA, Deutsche, China, Russia, America, Ukraine, Georgia, Belarus, Afghanistan, Netherlands, Qatar, Qatar, Qatar, S, China, Colombia, Colombia, American, France, EU, S, Ukraine, US, Korea, Vietnam, Afghanistan, Iraq, US, US, Italy, Denmark, France, Germany, Netherlands, Greece, Poland, Lithuania, Romania, Britain, US, Germany, Italy, Belgium, Netherlands, US, US, Norfolk, Albania, Belgium, Bulgaria, Canada, Croatia, Czech, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, Montenegro, Netherlands, Macedonia, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Turkey, Russia, Jamaican, Korea, Indonesian, Iran, Greek, Turkish, Germany, Indochina, Polish, India, Pakistani, Palestine, Palestine, Israeli, Palestinian, Chinese, Chinese, Syrian, Korean, Egyptian, Iraqi, Iranian, Syrian, Guatemalan, Taiwan, Algerian, Kashmir, Vietnam, Cyprus, Polish, Syrian, Iraqi, Lebanon, Taiwan, Cuban, Cuban, Congo, Turkish, Albanian, Albania, Iraqi, Iraqi, Indonesia, Malaysia, Portuguese, Angolan, Guinea-Bissau, Mozambican, Cuban, Indian, Eritrean, Yemen, Syrian, Cyprus, Mexican, Guatemalan, Colombian, Brazilian, Dominican, Indonesian, Indonesia, Syrian, Argentine, Korean, Greek, Italy, Nigerian, Polish, Malaysia, Peruvian, Sudanese, Libyan, Syria, Cambodian, Thailand, Polish, Egypt, Turkish, Sudanese, Bolivian, Bangladesh, China, Yemen, Yemen, Yemenite, Bangladesh, Eritrean, Uruguayan, Afghan, Chilean, Iraqi, Turkish, Cyprus, Bangladeshi, Angolan, Cambodian, Mozambican, Ethiopian, Lebanese, Albanian, Indochina, Cambodian, Vietnamese, Cambodian, Argentina, Argentine, Egyptian, Libyan, Korean, Nicaraguan, Uganda, Tanzania, Chadian, Libyan, Yemenite, Iranian, Vietnamese, Salvadoran, Afghan, Peruvian, Eritrean, Turkish, Ugandan, Poland, Falklands, Ethiopian, Grenada, Iran, Iraq, Yemen, American, Korean, Afghan, Panama, Polish, Polish, Romanian, Mongolian, Yemeni, Albania, China, Taiwan, Korea, Kosovo, Indian, American, Deutschland, America, Russian, American, Russian, Russian, Russia, Russian, S, Rican, Japan, S, Korean, S, S, Afghanistan, Iraq, Afghanistan, Iraq, Iraqi, Pakistan, Philippines, Ethiopia, Uzbekistan, Afghanistan, Philippines, Georgia, Georgia, Pakistan, Philippines, Iraq, Iraqi, Saudi, Arabia, Somalia, Lebanon, Yemen, America, Iranian, Korea, Albania, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia, Herzegovina, Bulgaria, Croatia, Cyprus, Czech, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kazakhstan, Latvia, Lithuania, Luxembourg, Malta, Moldova, Monaco, Montenegro, Netherlands, Macedonia, Norway, Poland, Portugal, Romania, Russia, Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, Vatican, Kosovo, Cyprus, American, Chinese, Indian, American, American, American, American, American, Bengal, EU, Nordic, America, America, Australia, Brazil, Russia, India, China, Portuguese, India, Brazil, Bengal, America, American, American, America, Indian, American, American, American, Nordic, American, American, American, Nordic, Greco, Greece, Germanic, Greek, Greek, Greek, Finnish, Germanic, Portuguese, EU, EU, EU, UK,

```
Nordic, Nordic, Germany, France, Japan, Australia, Czech, Spain, Portugal,  
Norway, Latvia, Croatia, Greece, Sweden, Poland, Vatican, Israel, Finland,  
Switzerland, Ukraine, Albania, Belgium, Bulgaria, Canada, Croatia, Czech, Denmark,  
Estonia, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania,  
Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Turkey}
```

```
In[58]:= (* 44.7 *) wikipediaLinks = Import["https://en.wikipedia.org", "Hyperlinks"];  
Length[wikipediaLinks]
```

```
Out[59]= 379
```

```
In[62]:= (* 44.8 *) SendMail["brianhill@deepsprings.edu",  
 {"Wolf", "Here's my current location...", GeoGraphics[]}];
```

```
Out[62]= Success[  Message: Mail sent.  
Recipient: brianhill@deepsprings.edu]
```

```
(* 44.9 *) SendMail["brianhill@deepsprings.edu",  
 {"moon phase", "Here's the current moon phase...", MoonPhase[]}];
```

```
Out[63]= Success[  Message: Mail sent.  
Recipient: brianhill@deepsprings.edu]
```

```
(* NB: I didn't receive any of these emails. *)
```