```
cn = ["Canada", "Mexico", "USA"]
cc = ["Ottawa", "Mexico City", "Washington DC"]
cp = [37.6, 129.2, 327.2]
ca = [3.86, 0.76, 3.80]
var = ["country", "capital", "population", "area"]
units = ["", "", "million people", "million square miles"]

for i in range(3):
   if i == 0: p_Canada = [cn[i], cc[i], cp[i], ca[i]]
   if i == 1: p_Mexico = [cn[i], cc[i], cp[i], ca[i]]
   if i == 2: p_USA = [cn[i], cc[i], cp[i], ca[i]]

cdata = [p_Canada, p_Mexico, p_USA]

# Question 2 ------------------------------------------------------------------
# rounding is optional
for i in cdata: i.append(round(i[2]/i[3], 2))
var.append("density")
units.append("residents per square mile")

while True:
   uq = input("What would you like to know?  ") # user query

   if "exit" in uq or "quit" in uq:
      print("Have a good day!")
      break

# Question 3 ------------------------------------------------------------------
   if "add" in uq:

      name = input("Country name: ")
      capital = input("Capital: ")
      population = float(input("Population (in millions): "))
      area = float(input("Area (in million square miles): "))
      density = round(population/area, 2)
      new_entry = [name, capital, population, area, density]
      cdata.append(new_entry)
      continue

   # notice that we can't get information about the new country yet
   # we will have to figure this out later
   if "canada" in uq or "Canada" in uq: c = 0
   elif "mexico" in uq or "Mexico" in uq: c = 1
   elif "usa" in uq or "USA" in uq: c = 2
   else:
      print("No data for this query.")
      continue
```

```
# Question 4 ------------------------------------------------------------------
   if "delete" in uq:
      print (f"{cdata[c][0]} will be deleted from the data")

      #cdata.pop(c) # deletes country BUT also reduces the size of the list
      del cdata[c] # same as above

      #cdata[c] = [] # replaces the country data with an empty list
      continue
      # notice that the user may still ask a question about a deleted country
      # which will result in an error
      # we will have to figure out how to solve this later

   if "capital" in uq or "Capital" in uq: v = 1
   elif "population" in uq or "people" in uq: v = 2
   elif "area" in uq or "territory" in uq: v = 3
   elif "density" in uq: v = 4
   else:
      print("No data for this query.")
      continue

# Question 1 ------------------------------------------------------------------
   print(f"The {var[v]} of {cdata[c][0]} is {cdata[c][v]} {units[v]}")
   # notice that cdata[c][v] can be a string (capital) or a number (area)
   # therefore, you cannot use rounding or float formatting here
```