Part of exercise Business P9.23:

For the Country class:

Step 1:

informal list of responsibilities for the Country class:

1. Genereate instances of countries.

2. be able to store variables like name of country, population, area and density

3. be able to return/give access to the same varibales

Step 2:

Specify public interface:

class Country:

def \_\_init\_\_(self, name, population, area):

...

def get\_name(self):

...

def get\_population(self):

...

def get\_area(self):

...

def get\_density():

...

Step 3:

Document the public interface:

# # The class holds information about a country, the information is name of the country, population, area and density.

#

class Country:

# # Constructs an object of a country, with name, population and area as parameters.

#

def \_\_init\_\_(self, name, population, area):

# # returns the name of the country

# @return self.\_name instance variable that is the name of the country

#

def get\_name(self):

# # returns the population of the country

# @return self.\_population instance variable that is the population of the country

#

def get\_population(self):

# # returns the area of the country

# @return self.\_area instance variable that is the area of the country

#

def get\_area(self):

# # returns the density of the country

# @return self.\_density instance variable that is the density of the country

#

def get\_density(self):

Step 4:

Determine instance variables:

I need instance variables for name, population, area and density. Beacuase the exercise says those are the ones I need.

Step 5:

See country.py for implementation

Step 6:

see country.py for implementation

Step 7:

See countryTest.py for test of class

For the programme countryInformationFinder.py

Step 1, Informal list of responsibilities:

1. the programme should be able to find highest population, area and density from a list of countries

2. the programme should be able to find highest population, area and density from a dictionary of countries

Step 2, Specify public interface:

def country\_finder\_for\_list(list\_of\_countries):

...

def country\_finder\_for\_dictionary(country\_dict):

...

Step 3, Document the public interface:

# # Finds the countries with largest population, largest area and largest density from a list of countries

# @return a tuple of length 3 with the first element being the country with the largest population, second element being the country with largest area and third the country with largest density

#

def country\_finder\_for\_list(list\_of\_countries):

...

# # Finds the countries with largest population, largest area and largest density from a dictionary of countries

# @return a tuple of length 3 with the first element being the country with the largest population, second element being the country with largest area and third the country with largest density

#

def country\_finder\_for\_dictionary(country\_dict):

...

Step 4, Determine instance variables:

No instance variables. this is not a class this is just a programme with functions.

Step 5:

Irrelevant for this.

Step 6:

See countryInformationFinder.py for implementation of methods

Step 7:

See testCountry for test programme.

Extra:

(I want to add that in the beginning, after reading the example, I thought we were supposed to make a menu of choices for the user.

So that the user could choose if he/she wanted to find either highest population, area or density. So I made a class for that as well.

That is also a part f the test programme.)