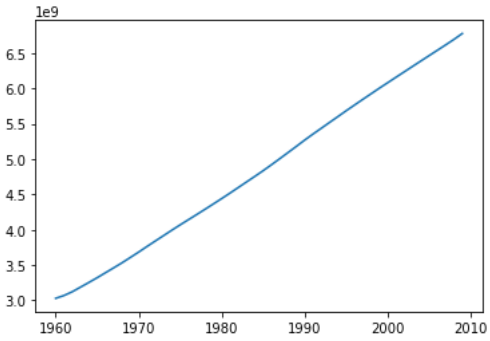
```
# Name Dipika Sharma
# DSC 540-T302 Data Preparation
# Week 1&2
# Question 2

# 2. Create a Jupyter notebook where you create a list, iterate over the list
# and sort your results, generate random
# numbers, add to the list, and then print your results.

import random

if __name__ == '__main__':

    # Create a list
    l = [6, 9, 2, 8, 1, 5, 3]

    # Iterate over the list and sort your result
    for i in range(0, len(l) - 1):
        for j in range(i + 1, len(l)):
            if (l[i] > l[j]):
                l[i], l[j] = l[j], l[i]

    print("Sorted list : ")
    print(l)

    print(random.choice(l))

    # generate random number
    n = random.randint(1, 50)

    # Add random number to the list
    l.append(n)

    # Print the list
    print(l)
Sorted list :
[1, 2, 3, 5, 6, 8, 9]
5
[1, 2, 3, 5, 6, 8, 9, 2]
                                                                                                                    [2]:
# Question 3

# Create a line chart with Matplotlib and the following data file.


import pandas as pd
import matplotlib.pyplot as plt
import numpy as np

var = pd.read_excel('world-population.xlsm')

x = list(var['Year'])
y = list(var['Population'])
plt.plot(x, y)
plt.show()
```



[3]:

```
# Question 4.a.

# ********** Task 1 **********
# Create a list of random numbers (at least 100 in length
# but we encourage you to play with the length)

import random
LIMIT = 100
list_rd_num = [random.randint(0, LIMIT) for x in range(0, LIMIT)]

print(list_rd_num)
```

[72, 31, 98, 35, 58, 4, 66, 90, 49, 73, 68, 96, 99, 55, 6, 21, 54, 67, 3, 66, 82, 1, 17, 60, 83, 8, 75, 19, 13, 59, 85, 25, 39, 71, 83, 67, 17, 25, 4, 25, 18, 64, 76, 56, 77, 16, 69, 81, 45, 38, 62, 78, 95, 70, 20, 70, 73, 100, 96, 40, 49, 19, 42, 40, 53, 33, 94, 30, 93, 62, 85, 22, 76, 83, 16, 63, 46, 99, 42, 24, 75, 55, 44, 29, 8, 2, 80, 78, 98, 76, 67, 33, 84, 54, 5, 99, 87, 35, 98, 52]

[4]:

```
# ********** Task 2 **********
# Write a list comprehension to generate a second list from the one you just created.
# The condition of membership in the second list is divisibility by 3.


list_divi_by_3 = [a for a in list_rd_num if a % 3 == 0]
print(list_divi_by_3)
```

[72, 66, 90, 96, 99, 6, 21, 54, 3, 66, 60, 75, 39, 18, 69, 81, 45, 78, 96, 42, 33, 30, 93, 63, 99, 42, 24, 75, 78, 33, 84, 54, 99, 87]

[5]:

```
# ********** Task 3 **********
# Use the len function to measure the length of the first list and the second list
# Store both in two different variables

length_list_rd = len(list_rd_num)
length_list_divi_3 = len(list_divi_by_3)

# Calculate the difference of length between them

diff = length_list_rd - length_list_divi_3
print(diff)
```

66

[6]:

```
# ********** Task 4 **********
# Pack Task-2 and Task-3 in a single while loop and perform them few times in
# such a way that at the end you have a list with difference of length
```

```
# End the while loop when desired number of experiments are finished
# (at least three, please feel free to do more)

Try = 10  # number of time we want to perform the task
difference_list = []
count = 1
while count <= Try:
   list_rd_num = [random.randint(0, LIMIT) for x in range(0, LIMIT)]
   list_divi_by_3 = [a for a in list_rd_num if a % 3 == 0]

   length_list_rd = len(list_rd_num)
   length_list_divi_3 = len(list_divi_by_3)
   diff = length_list_rd - length_list_divi_3

   difference_list.append(diff)
   count = count + 1
print(difference_list)
```

```
[67, 67, 66, 67, 74, 57, 65, 66, 63, 72]
```

[7]:

```
# Calculate the arithmetic mean (common average) on the difference of
# length that you have. (How to sum all values of a list?)

average_diff = sum(difference_list) / float(len(difference_list))
print(average_diff)
```

```
66.4
```

[8]:

```
# Question 4.b.

# ********************************* Task 1 ************************************
# Create a string variable which can hold multiline text. Paste the text you just copied into it.
str_text = """It is a truth universally acknowledged, that a single man in possession of a good fortune, must be
in want of a wife.

However little known the feelings or views of such a man may be on his first entering a neighbourhood, this
truth is so well fixed in the minds of the surrounding families, that he is considered as the rightful property of
some one or other of their daughters.

“My dear Mr. Bennet,” said his lady to him one day, “have you heard that Netherfield Park is let at last?”

Mr. Bennet replied that he had not.

“But it is,” returned she; “for Mrs. Long has just been here, and she told me all about it.”

Mr. Bennet made no answer.

“Do not you want to know who has taken it?” cried his wife impatiently.

“You want to tell me, and I have no objection to hearing it.”

This was invitation enough.

“Why, my dear, you must know, Mrs. Long says that Netherfield is taken by a young man of large fortune from
the north of England; that he came down on Monday in a chaise and four to see the place, and was so much
```

delighted with it that he agreed with Mr. Morris immediately; that he is to take possession before Michaelmas, and some of his servants are to be in the house by the end of next week."

"What is his name?"

"Bingley."

"Is he married or single?"

"Oh! single, my dear, to be sure! A single man of large fortune; four or five thousand a year. What a fine thing for our girls!"

"How so? how can it affect them?"

"My dear Mr. Bennet," replied his wife, "how can you be so tiresome! You must know that I am thinking of his marrying one of them."

"Is that his design in settling here?"

"Design! nonsense, how can you talk so! But it is very likely that he may fall in love with one of them, and therefore you must visit him as soon as he comes."

"I see no occasion for that. You and the girls may go, or you may send them by themselves, which perhaps will be still better, for as you are as handsome as any of them, Mr. Bingley might like you the best of the party."

"My dear, you flatter me. I certainly have had my share of beauty, but I do not pretend to be anything extraordinary now. When a woman has five grown-up daughters, she ought to give over thinking of her own beauty."

"In such cases, a woman has not often much beauty to think of."

"But, my dear, you must indeed go and see Mr. Bingley when he comes into the neighbourhood."

"It is more than I engage for, I assure you."

"But consider your daughters. Only think what an establishment it would be for one of them. Sir William and Lady Lucas are determined to go, merely on that account, for in general, you know, they visit no newcomers. Indeed you must go, for it will be impossible for us to visit him, if you do not."

"You are over scrupulous, surely. I dare say Mr. Bingley will be very glad to see you; and I will send a few lines by you to assure him of my hearty consent to his marrying whichever he chooses of the girls; though I must throw in a good word for my little Lizzy."

"I desire you will do no such thing. Lizzy is not a bit better than the others; and I am sure she is not half so handsome as Jane, nor half so good-humoured as Lydia. But you are always giving her the preference."

"They have none of them much to recommend them," replied he; "they are all silly and ignorant like other girls; but Lizzy has something more of quickness than her sisters."

"Mr. Bennet, how can you abuse your own children in such a way? You take delight in vexing me. You have no compassion on my poor nerves."

"You mistake me, my dear. I have a high respect for your nerves. They are my old friends. I have heard you mention them with consideration these twenty years at least."

“Ah, you do not know what I suffer.”

“But I hope you will get over it, and live to see many young men of four thousand a year come into the neighbourhood.”

“It will be no use to us, if twenty such should come, since you will not visit them.”

“Depend upon it, my dear, that when there are twenty, I will visit them all.”

Mr. Bennet was so odd a mixture of quick parts, sarcastic humour, reserve, and caprice, that the experience of three-and-twenty years had been insufficient to make his wife understand his character. Her mind was less difficult to develop. She was a woman of mean understanding, little information, and uncertain temper. When she was discontented, she fancied herself nervous. The business of her life was to get her daughters married; its solace was visiting and news."""

```
type(str_text)
```

```
len(str_text)
```

[8]:

```
4473
```

[9]:

```
# ********************************* Task 2 ************************************
# Now use string methods to get rid of all the newlines (\n or \r)
# also remove all the symbols including !,?,.,;,, etc.

new_str_text = str_text.strip()


clean_str_text = ""
import re

clean_str_text = re.sub(r'[?|$|.|!|"|,|;|:]',r'',new_str_text)

print(clean_str_text)
```

It is a truth universally acknowledged that a single man in possession of a good fortune must be in want of a wife

However little known the feelings or views of such a man may be on his first entering a neighbourhood this tr uth is so well fixed in the minds of the surrounding families that he is considered as the rightful property of so me one or other of their daughters

“My dear Mr Bennet” said his lady to him one day “have you heard that Netherfield Park is let at last”

Mr Bennet replied that he had not

“But it is” returned she “for Mrs Long has just been here and she told me all about it”

Mr Bennet made no answer

“Do not you want to know who has taken it” cried his wife impatiently

“You want to tell me and I have no objection to hearing it”

This was invitation enough

“Why my dear you must know Mrs Long says that Netherfield is taken by a young man of large fortune from t he north of England that he came down on Monday in a chaise and four to see the place and was so much deli ghted with it that he agreed with Mr Morris immediately that he is to take possession before Michaelmas and some of his servants are to be in the house by the end of next week”

“What is his name”

“Bingley”

“Is he married or single”

“Oh single my dear to be sure A single man of large fortune four or five thousand a year What a fine thing for o ur girls”

“How so how can it affect them”

“My dear Mr Bennet” replied his wife “how can you be so tiresome You must know that I am thinking of his m arrying one of them”

“Is that his design in settling here”

“Design nonsense how can you talk so But it is very likely that he may fall in love with one of them and therefo re you must visit him as soon as he comes”

“I see no occasion for that You and the girls may go or you may send them by themselves which perhaps will b e still better for as you are as handsome as any of them Mr Bingley might like you the best of the party”

“My dear you flatter me I certainly have had my share of beauty but I do not pretend to be anything extraordi nary now When a woman has five grown-up daughters she ought to give over thinking of her own beauty”

“In such cases a woman has not often much beauty to think of”

“But my dear you must indeed go and see Mr Bingley when he comes into the neighbourhood”

“It is more than I engage for I assure you”

“But consider your daughters Only think what an establishment it would be for one of them Sir William and L ady Lucas are determined to go merely on that account for in general you know they visit no newcomers Inde ed you must go for it will be impossible for us to visit him if you do not”

“You are over scrupulous surely I dare say Mr Bingley will be very glad to see you and I will send a few lines b y you to assure him of my hearty consent to his marrying whichever he chooses of the girls though I must thr ow in a good word for my little Lizzy”

“I desire you will do no such thing Lizzy is not a bit better than the others and I am sure she is not half so hand some as Jane nor half so good-humoured as Lydia But you are always giving her the preference”

“They have none of them much to recommend them” replied he “they are all silly and ignorant like other girls but Lizzy has something more of quickness than her sisters”

“Mr Bennet how can you abuse your own children in such a way You take delight in vexing me You have no co mpassion on my poor nerves”

“You mistake me my dear I have a high respect for your nerves They are my old friends I have heard you ment ion them with consideration these twenty years at least”

“Ah you do not know what I suffer”

“But I hope you will get over it and live to see many young men of four thousand a year come into the neighbo urhood”

“It will be no use to us if twenty such should come since you will not visit them”

“Depend upon it my dear that when there are twenty I will visit them all”

Mr Bennet was so odd a mixture of quick parts sarcastic humour reserve and caprice that the experience of th ree-and-twenty years had been insufficient to make his wife understand his character Her mind was less diffi cult to develop She was a woman of mean understanding little information and uncertain temper When she w as discontented she fancied herself nervous The business of her life was to get her daughters married its solac e was visiting and news

[10]:

```
# ********** Task 3 **********
```

```
word_list = clean_str_text.split()
len(word_list)
```

[10]:

```
848
```

[11]:

```
# ********** Task 4 **********
```

```
for word in word_list:
    if word_list.count(word) > 1:
        word_list.remove(word)
#len(word_list)

unique_word_list = set(word_list)
#unique_word_list
len(unique_word_list)
```

[11]:

```
367
```

[12]:

```
# ********** Task 5 **********
# Can you now count how many times each of the unique words appeared in the cleaned text?
# What is the most efficient way to do it?

dic = {}
unique_word_dic = dict.fromkeys(word_list)
for word in word_list:
    if unique_word_dic[word] is None:
        unique_word_dic[word] = 1
    else:
        unique_word_dic[word] += 1
print(unique_word_dic)
```

{'It': 1, 'universally': 1, 'acknowledged': 1, 'possession': 2, 'However': 1, 'known': 1, 'feelings': 1, 'views': 1, 'ma n': 3, 'first': 1, 'entering': 1, 'neighbourhood': 1, 'this': 1, 'truth': 1, 'well': 1, 'fixed': 1, 'minds': 1, 'surrounding': 1, 'families': 1, 'considered': 1, 'rightful': 1, 'property': 1, 'some': 2, 'their': 1, 'said': 1, 'lady': 1, 'day': 1, '“have': 1, 'Netherfield': 2, 'Park': 1, 'let': 1, 'last”': 1, 'had': 3, 'is”': 1, 'returned': 1, '“for': 1, 'just': 1, 'here': 1, 'told': 1, 'all

': 2, 'about': 1, 'made': 1, 'answer': 1, '“Do': 1, 'want': 2, 'who': 1, 'taken': 2, 'cried': 1, 'impatiently': 1, 'tell': 1, 'objection': 1, 'hearing': 1, 'it”': 1, 'This': 1, 'invitation': 1, 'enough': 1, '“Why': 1, 'Mrs': 1, 'Long': 1, 'says': 1, 'fortune': 2, 'from': 1, 'north': 1, 'England': 1, 'came': 1, 'down': 1, 'Monday': 1, 'chaise': 1, 'place': 1, 'delighted': 1, 'agreed': 1, 'Morris': 1, 'immediately': 1, 'he': 7, 'before': 1, 'Michaelmas': 1, 'servants': 1, 'house': 1, 'the': 10, 'end': 1, 'next': 1, 'week”': 1, '“What': 1, 'name”': 1, '“Bingley”': 1, 'or': 3, 'single”': 1, '“Oh': 1, 'sure': 2, 'A': 1, 'single': 1, 'large': 1, 'four': 2, 'What': 1, 'a': 11, 'fine': 1, 'our': 1, 'girls”': 1, '“How': 1, 'affect': 1, '“My': 2, 'Mr': 5, 'Bennet”': 1, 'his': 6, 'wife': 2, '“how': 1, 'tiresome': 1, 'must': 5, '“Is': 1, 'design': 1, 'settling': 1, 'here”': 1, '“Design': 1, 'nonsense': 1, 'how': 2, 'talk': 1, 'so': 4, 'likely': 1, 'that': 5, 'fall': 1, 'love': 1, 'therefore': 1, 'soon': 1, 'comes”': 1, 'see': 4, 'occasion': 1, 'may': 1, 'themselves': 1, 'which': 1, 'perhaps': 1, 'still': 1, 'any': 1, 'them': 5, 'might': 1, 'best': 1, 'party”': 1, 'flatter': 1, 'certainly': 1, 'share': 1, 'beauty': 2, 'pretend': 1, 'be': 5, 'anything': 1, 'extraordinary': 1, 'now': 1, 'five': 1, 'grown-up': 1, 'ought': 1, 'give': 1, 'thinking': 1, 'beauty”': 1, '“In': 1, 'cases': 1, 'often': 1, 'of”': 1, 'dear': 3, 'indeed': 1, 'Bingley': 2, 'comes': 1, 'is': 3, 'engage': 1, 'you”': 1, 'consider': 1, 'daughters': 2, 'Only': 1, 'think': 1, 'an': 1, 'establishment': 1, 'would': 1, 'one': 1, 'Sir': 1, 'William': 1, 'Lady': 1, 'Lucas': 1, 'determined': 1, 'go': 2, 'merely': 1, 'account': 1, 'general': 1, 'know': 2, 'they': 1, 'no': 4, 'newcomers': 1, 'Indeed': 1, 'for': 4, 'impossible': 1, 'us': 2, 'him': 2, 'not”': 1, 'scrupulous': 1, 'surely': 1, 'dare': 1, 'say': 1, 'will': 7, 'very': 1, 'glad': 1, 'you': 9, 'send': 1, 'few': 1, 'lines': 1, 'by': 1, 'assure': 1, 'hearty': 1, 'consent': 1, 'to': 7, 'marrying': 1, 'whichever': 1, 'chooses': 1, 'of': 8, 'though': 1, 'I': 7, 'throw': 1, 'good': 1, 'word': 1, 'my': 5, 'Lizzy”': 1, '“I': 1, 'desire': 1, 'do': 2, 'thing': 1, 'bit': 1, 'better': 1, 'others': 1, 'am': 1, 'handsome': 1, 'as': 2, 'Jane': 1, 'nor': 1, 'half': 1, 'good-humoured': 1, 'Lydia': 1, 'But': 1, 'always': 1, 'giving': 1, 'preference”': 1, '“They': 1, 'none': 1, 'much': 1, 'recommend': 1, 'replied': 1, '“they': 1, 'silly': 1, 'and': 5, 'ignorant': 1, 'like': 1, 'other': 1, 'girls': 1, 'but': 1, 'Lizzy': 1, 'has': 1, 'something': 1, 'more': 1, 'quickness': 1, 'than': 1, 'sisters”': 1, '“Mr': 1, 'Bennet': 2, 'can': 1, 'abuse': 1, 'own': 1, 'children': 1, 'in': 2, 'such': 2, 'way': 1, 'take': 1, 'delight': 1, 'vexing': 1, 'You': 1, 'have': 3, 'compassion': 1, 'on': 1, 'poor': 1, 'nerves”': 1, '“You': 1, 'mistake': 1, 'me': 1, 'high': 1, 'respect': 1, 'your': 1, 'nerves': 1, 'They': 1, 'old': 1, 'friends': 1, 'heard': 1, 'mention': 1, 'with': 1, 'consideration': 1, 'these': 1, 'at': 1, 'least”': 1, '“Ah': 1, 'not': 2, 'what': 1, 'suffer”': 1, '“But': 1, 'hope': 1, 'over': 1, 'it': 2, 'live': 1, 'many': 1, 'young': 1, 'men': 1, 'thousand': 1, 'year': 1, 'into': 1, 'neighbourhood”': 1, '“It': 1, 'use': 1, 'if': 1, 'twenty': 2, 'should': 1, 'come': 1, 'since': 1, 'visit': 2, 'them”': 1, '“Depend': 1, 'upon': 1, 'when': 1, 'there': 1, 'are': 1, 'all”': 1, 'odd': 1, 'mixture': 1, 'quick': 1, 'parts': 1, 'sarcastic': 1, 'humour': 1, 'reserve': 1, 'caprice': 1, 'experience': 1, 'three-and-twenty': 1, 'years': 1, 'been': 1, 'insufficient': 1, 'make': 1, 'understand': 1, 'character': 1, 'Her': 1, 'mind': 1, 'less': 1, 'difficult': 1, 'develop': 1, 'She': 1, 'woman': 1, 'mean': 1, 'understanding': 1, 'little': 1, 'information': 1, 'uncertain': 1, 'temper': 1, 'When': 1, 'she': 2, 'discontented': 1, 'fancied': 1, 'herself': 1, 'nervous': 1, 'The': 1, 'business': 1, 'her': 2, 'life': 1, 'was': 2, 'get': 1, 'married': 1, 'its': 1, 'solace': 1, 'visiting': 1, 'news': 1}

[13]:

```
top_words = sorted(unique_word_dic.items(), key=lambda key_val_tuple: key_val_tuple[1], reverse=True)
top_words[:25]
```

[13]:

```
[('a', 11),
 ('the', 10),
 ('you', 9),
 ('of', 8),
 ('he', 7),
 ('will', 7),
 ('to', 7),
 ('I', 7),
 ('his', 6),
 ('Mr', 5),
 ('must', 5),
 ('that', 5),
 ('them', 5),
 ('be', 5),
 ('my', 5),
 ('and', 5),
 ('so', 4),
 ('see', 4),
```

```
('no', 4),
('for', 4),
('man', 3),
('had', 3),
('or', 3),
('dear', 3),
('is', 3)]
```

[14]:

```
# Exercise 4.c.
# Activity 3

# Look up the definition of permutations and dropwhile from itertools.
from itertools import permutations, dropwhile

permutations?
Init signature: permutations(iterable, r=None)
Docstring:
Return successive r-length permutations of elements in the iterable.

permutations(range(3), 2) --> (0,1), (0,2), (1,0), (1,2), (2,0), (2,1)
Type:           type
Subclasses:
```

[15]:

```
# Activity 3

# Look up the definition of permutations and dropwhile from itertools.
from itertools import permutations, dropwhile

dropwhile?
Init signature: dropwhile(predicate, iterable, /)
Docstring:
Drop items from the iterable while predicate(item) is true.

Afterwards, return every element until the iterable is exhausted.
Type:           type
Subclasses:
```

[16]:

```
# Write an expression to generate all the possible three digit numbers using 0, 1, and 2
from itertools import permutations

comb = permutations([0, 1, 2], 3)

for i in comb:
    print(i)
(0, 1, 2)
(0, 2, 1)
(1, 0, 2)
(1, 2, 0)
(2, 0, 1)
(2, 1, 0)
```

[17]:

```
# Loop over the iterator expression you generated before.
# Use print to print each element returned by the iterator.
# Use assert and isinstance to make sure that the elements are of type tuple
```

```
from itertools import permutations

for number_tuple in permutations([0, 1, 2], 3):
    print(number_tuple)
    assert isinstance(number_tuple, tuple)
```

```
(0, 1, 2)
(0, 2, 1)
(1, 0, 2)
(1, 2, 0)
(2, 0, 1)
(2, 1, 0)
```

[18]:

```
# Write the loop again. But this time use dropwhile with a lambda expression
# to drop any leading zeros from the tuples. As an example (0, 1, 2) will
# become [1, 2]. Also cast the output of the dropwhile to a list.

for number_tuple in permutations([0, 1, 2], 3):
    print(list(dropwhile(lambda x: x <= 0, number_tuple)))
```

```
[1, 2]
[2, 1]
[1, 0, 2]
[1, 2, 0]
[2, 0, 1]
[2, 1, 0]
```

[19]:

```
# Write all the logic you had written above, but this time write a separate
# function where you will be passing the list generated from dropwhile and the
# function will return the whole number contained in the list.
# As an example if you pass [1, 2] to the fucntion it will return 12 to you.
# Make sure that the return type is indeed a number and not a string.
# Although this task can be achieved using some other tricks,
# we require that you treat the incoming list as a stack in the function and
# generate the number there.

import math
def convert_to_number(number_stack):
    final_number = 0
    for i in range(0, len(number_stack)):
        final_number += (number_stack.pop() * (math.pow(10, i)))
    return final_number

for number_tuple in permutations([0, 1, 2], 3):
    number_stack = list(dropwhile(lambda x: x <= 0, number_tuple))
    print(int(convert_to_number(number_stack)))
```

```
12
21
102
120
201
210
```

[20]:

```
# Exercise 4.d.
```

```
# Activity 4

def get_dict_from_csv(header, line):
    data = {}
    for x in range(len(header)):
        data[header[x]]=(line[x],"None")[not line[x]]
    return data

with open("sales_record.csv", "r") as fd:
    first_line = fd.readline()
    header = first_line.replace("\n", "").split(",")
    i = 0
    for current_line in fd:
        i += 1
        current_line = current_line.replace("\n", "").split(",")
        d = get_dict_from_csv(header, current_line)
        print(d)
        if i > 5:
            break
fd.close()
```


{'Region': 'Central America and the Caribbean', 'Country': 'Antigua and Barbuda ', 'Item Type': 'Baby Food', 'Sales Channel': 'Online', 'Order Priority': 'M', 'Order Date': '12/20/2013', 'Order ID': '957081544', 'Ship Date': '1/11/2014', 'Units Sold': '552', 'Unit Price': '255.28', 'Unit Cost': '159.42', 'Total Revenue': '140914.56', 'Total Cost': '87999.84', 'Total Profit': '52914.72'}
{'Region': 'Central America and the Caribbean', 'Country': 'Panama', 'Item Type': 'Snacks', 'Sales Channel': 'Offline', 'Order Priority': 'C', 'Order Date': '7/5/2010', 'Order ID': '301644504', 'Ship Date': '7/26/2010', 'Units Sold': '2167', 'Unit Price': '152.58', 'Unit Cost': '97.44', 'Total Revenue': '330640.86', 'Total Cost': '211152.48', 'Total Profit': '119488.38'}
{'Region': 'Europe', 'Country': 'Czech Republic', 'Item Type': 'Beverages', 'Sales Channel': 'Offline', 'Order Priority': 'C', 'Order Date': '9/12/2011', 'Order ID': '478051030', 'Ship Date': '9/29/2011', 'Units Sold': '4778', 'Unit Price': '47.45', 'Unit Cost': '31.79', 'Total Revenue': '226716.10', 'Total Cost': '151892.62', 'Total Profit': '74823.48'}
{'Region': 'Asia', 'Country': 'North Korea', 'Item Type': 'Cereal', 'Sales Channel': 'Offline', 'Order Priority': 'L', 'Order Date': '5/13/2010', 'Order ID': '892599952', 'Ship Date': '6/15/2010', 'Units Sold': '9016', 'Unit Price': '205.70', 'Unit Cost': '117.11', 'Total Revenue': '1854591.20', 'Total Cost': '1055863.76', 'Total Profit': '798727.44'}
{'Region': 'Asia', 'Country': 'Sri Lanka', 'Item Type': 'Snacks', 'Sales Channel': 'Offline', 'Order Priority': 'C', 'Order Date': '7/20/2015', 'Order ID': '571902596', 'Ship Date': '7/27/2015', 'Units Sold': '7542', 'Unit Price': '152.58', 'Unit Cost': '97.44', 'Total Revenue': '1150758.36', 'Total Cost': '734892.48', 'Total Profit': '415865.88'}
{'Region': 'Middle East and North Africa', 'Country': 'Morocco', 'Item Type': 'Personal Care', 'Sales Channel': 'Offline', 'Order Priority': 'L', 'Order Date': '11/8/2010', 'Order ID': '412882792', 'Ship Date': '11/22/2010', 'Units Sold': '48', 'Unit Price': '81.73', 'Unit Cost': '56.67', 'Total Revenue': '3923.04', 'Total Cost': '2720.16', 'Total Profit': '1202.88'}