Reading Excel Files

In [3]:
```
import openpyxl
#creating Workbook Object for reading excel file
wb = openpyxl.load_workbook('example.xlsx')
```

In [4]:
```
type(wb)
```

Out[4]:
```
openpyxl.workbook.workbook.Workbook
```

In [5]:
```
#list of names of all the sheets in the workbook
wb.get_sheet_names()
```

Out[5]:
```
['Sheet1', 'Sheet2', 'Sheet3']
```

In [6]:
```
#Accesing sheet3, create a Worksheet object
sheet = wb.get_sheet_by_name('Sheet3')
```

In [7]:
```
type(sheet)
```

Out[7]:
```
openpyxl.worksheet.worksheet.Worksheet
```

In [ ]:
```
sheet.title
```

In [9]:
```
c=sheet.cell(row=1, column=2)
print(c)
print(c.value)
```

```
<Cell Sheet3.B1>
Apples
```

In [11]:
```
sheet = wb.get_sheet_by_name('Sheet3')
c=sheet['A1']
type(c)
print(c)
```

```
<Cell Sheet3.A1>
```

In [12]:
```
c.value
```

Out[12]:
```
datetime.datetime(2014, 4, 5, 13, 34)
```

In [13]:
```
c.row
```

Out[13]:
```
1
```

In [14]:
```
c.column
```

Out[14]:
```
'A'
```

In [15]:
```
c.coordinate
```

Out[15]:
```
'A1'
```

In [16]:
```
for i in range(1, 8, 2):
    print(i, sheet.cell(row=i, column=2).value)
```

```
1 Apples
3 Pears
5 Apples
7 Strawberries
```

In [18]:
```
import openpyxl
wb = openpyxl.load_workbook('example.xlsx')
sheet = wb.get_sheet_by_name('Sheet1')
print(sheet.get_highest_row())    #7
print(sheet.get_highest_column()) #3
```

```
7
4
```

In [19]:
```
import openpyxl
wb = openpyxl.load_workbook('example.xlsx')
sheet = wb.get_sheet_by_name('Sheet1')
print(sheet.columns) # tuple of 4 tuples consisting of column wise cells
```

```
((<Cell Sheet1.A1>, <Cell Sheet1.A2>, <Cell Sheet1.A3>, <Cell Sheet1.A4>, <Cell Sheet1.A5
l Sheet1.A6>, <Cell Sheet1.A7>), (<Cell Sheet1.B1>, <Cell Sheet1.B2>, <Cell Sheet1.B3>, <
eet1.B4>, <Cell Sheet1.B5>, <Cell Sheet1.B6>, <Cell Sheet1.B7>), (<Cell Sheet1.C1>, <Cell
1.C2>, <Cell Sheet1.C3>, <Cell Sheet1.C4>, <Cell Sheet1.C5>, <Cell Sheet1.C6>, <Cell Shee
>), (<Cell Sheet1.D1>, <Cell Sheet1.D2>, <Cell Sheet1.D3>, <Cell Sheet1.D4>, <Cell Sheet1
Cell Sheet1.D6>, <Cell Sheet1.D7>))
```

In [21]:
```
import openpyxl
wb = openpyxl.load_workbook('example.xlsx')
sheet = wb['Sheet1']
for cellObj in sheet.columns[1]: #Refers to second column
    print(cellObj.value)
```

```
Apples
Cherries
Pears
Oranges
Apples
Bananas
Strawberries
```

In [23]:
```
import openpyxl
wb = openpyxl.load_workbook('example.xlsx')
sheet = wb.get_sheet_by_name('Sheet1')
#print(sheet.rows)  #tuple of 7 tuples consisting elements of row wise
for cellObj in sheet.rows[1]: #refers to second row
    print(cellObj.value)
```

```
2014-04-05 03:41:00
Cherries
85
None
```

In [30]:
```
import openpyxl
wb = openpyxl.load_workbook('example.xlsx')
sheet = wb.get_sheet_by_name('Sheet1')
#print(sheet['A1':'C3'])
for rowOfCellObjects in sheet['B3':'C6']:#((A1,B1,C1),(A2,B2,C2),(A3,B3,C3))
    for cellObj in rowOfCellObjects:
        print(cellObj.coordinate, cellObj.value)
    print('--- END OF ROW ---')
```

```
B3 Pears
C3 14
--- END OF ROW ---
B4 Oranges
C4 52
--- END OF ROW ---
B5 Apples
C5 152
--- END OF ROW ---
B6 Bananas
C6 23
--- END OF ROW ---
```

Writing Excel Files

In [31]:
```
import openpyxl
#new workbook object contaning only one sheet with 'Sheet'
wb = openpyxl.Workbook()
print(wb.get_sheet_names())
```

```
['Sheet']
```

In [32]:
```
sheet = wb.get_active_sheet()
sheet.title = 'V ADP'
print(wb.get_sheet_names())
```

```
['V ADP']
```

In [33]:
```
import openpyxl
wb = openpyxl.Workbook()
print("The sheets are:")
print(wb.get_sheet_names())
sheet = wb.get_active_sheet()
sheet.title = 'V ADP'
print("The sheets are:")
print(wb.get_sheet_names())
wb.save('example_copy.xlsx')
```

```
The sheets are:
['Sheet']
The sheets are:
['V ADP']
```

In [36]:
```
import openpyxl
wb = openpyxl.Workbook()
print(wb.get_sheet_names())
wb.create_sheet()
wb.create_sheet(index=0, title='First Sheet')
wb.create_sheet(index=2, title='Middle Sheet')
print(wb.get_sheet_names())
wb.remove_sheet(wb.get_sheet_by_name('Middle Sheet'))
wb.remove_sheet(wb.get_sheet_by_name('Sheet1'))
print(wb.get_sheet_names())
wb.save('example_copy.xlsx')
```

```
['Sheet']
['First Sheet', 'Sheet', 'Middle Sheet', 'Sheet1']
['First Sheet', 'Sheet']
```

In [ ]:
```
wb.remove_sheet(wb.get_sheet_by_name('Middle Sheet'))
wb.remove_sheet(wb.get_sheet_by_name('Sheet1'))
print(wb.get_sheet_names())
wb.save('example_copy.xlsx')
```

In [37]:
```
import openpyxl
wb = openpyxl.Workbook()
sheet = wb.get_sheet_by_name('Sheet')
sheet['A1'] = 'Hello world!'
sheet['B1'] = 435
wb.save('example_copy.xlsx')
```

Adding Font styles to Cells

In [13]:
```
import openpyxl
from openpyxl.styles import Font, Style

wb = openpyxl.Workbook() #workbook object
sheet = wb.get_sheet_by_name('Sheet') #worksheet object

#create Font Object
italic24Font = Font(size=24, italic=True)

#create Style object using Font object
styleObj = Style(font=italic24Font)

sheet['A1'].style=styleObj
sheet['A1'] = 'Hello world!'
wb.save('styled.xlsx')
```

In [14]:
```
import openpyxl
from openpyxl.styles import Font, Style

wb = openpyxl.Workbook()
sheet = wb.get_sheet_by_name('Sheet')

fontObj1 = Font(name='Times New Roman', bold=True)
styleObj1 = Style(font=fontObj1)
sheet['A1'].style=styleObj1
sheet['A1'] = 'Bold Times New Roman'

fontObj2 = Font(size=24, italic=True)
styleObj2 = Style(font=fontObj2)
sheet['B3'].style=styleObj2
sheet['B3'] = '24 pt Italic'

wb.save('styles.xlsx')
```

Adding Formulas

In [33]:
```
import openpyxl
wb = openpyxl.Workbook()
sheet = wb.get_active_sheet()
sheet['A1'] = 200
sheet['A2'] = 300
sheet['A3'] = '=SUM(A1:A2)'
wb.save('writeFormula.xlsx')
```

In [34]:
```
sheet['A1'].value
```

Out[34]: 200

In [35]:
```
sheet['A2'].value
```

Out[35]: 300

In [36]:
```
sheet['A3'].value
```

Out[36]: '=SUM(A1:A2)'

In [44]:
```
wbFormulas = openpyxl.load_workbook('writeFormula.xlsx')
wbDataOnly=openpyxl.load_workbook('writeFormula.xlsx', data_only=True)
sheet = wbDataOnly.get_active_sheet()
print(sheet['A3'].value)  #500
```

500

Merging and Unmerge Cells

In [38]:
```
import openpyxl
wb = openpyxl.Workbook()
sheet = wb.get_active_sheet()
sheet.merge_cells('A1:D3')
sheet['A1'] = 'Twelve cells merged together.'
sheet.merge_cells('C5:D5')
sheet['C5'] = 'Two merged cells.'
wb.save('merged.xlsx')
```

In [39]:
```
import openpyxl
wb = openpyxl.load_workbook('merged.xlsx')
sheet = wb.get_active_sheet()
sheet.unmerge_cells('A1:D3')
sheet.unmerge_cells('C5:D5')
wb.save('merged.xlsx')
```

Adjusting row and column

In [1]:
```
import openpyxl
wb = openpyxl.Workbook()
sheet = wb.get_active_sheet()
sheet['A1'] = 'Tall row'
sheet['B2'] = 'Wide column'
sheet.row_dimensions[1].height = 70
sheet.column_dimensions['B'].width = 20
wb.save('dimensions.xlsx')
```

Freezing Panes

In [2]:
```
import openpyxl
wb = openpyxl.load_workbook('produceSales.xlsx')
sheet = wb.get_active_sheet()
sheet.freeze_panes = 'A2'
wb.save('freezeExample.xlsx')
```

Inserting Charts in the Excel Sheet

In [5]:

```
import openpyxl
wb = openpyxl.Workbook()
sheet = wb.get_active_sheet()

for i in range(1, 11): # create some data in column A
    sheet['A' + str(i)] = i

#create Reference object
refObj = openpyxl.charts.Reference(sheet, (1, 1), (10, 1))

#create Series object
seriesObj = openpyxl.charts.Series(refObj, title='First series')

#create Chart object
chartObj = openpyxl.charts.BarChart()

#Append the Series object to the Chart object.
chartObj.append(seriesObj)

#set the drawing.top, drawing.left, drawing.width, and
#drawing.height variables of the Chart object.

chartObj.drawing.top = 50 # set the position
chartObj.drawing.left = 100
chartObj.drawing.width = 300 # set the size
chartObj.drawing.height = 500

#Add the Chart object to the Worksheet object.
sheet.add_chart(chartObj)

#save the excel file
wb.save('sampleChart.xlsx')
```