Course Title

Collaborative Review Task *M No.*

Anon

June 5, 2022

Questions

Replace this text with problem set or project requirements: Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

1. *Task 1;*
2. *Task 2;*
3. *Task 3;*
4. *Task 4;*
5. *Task 5.*

Solutions

Complete transcript of source code is provided at the end of this document.

Task 1:

Replace this text with own answer to question: Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Example Book[1] citation. Example Textbook[2] citation. Example Article[3] citation. Example URL or Internet source[4] citation.

[1] S. E. Shreve. *Stochastic calculus for finance II: Continuous-time models.* Volume II, Springer Science, 2004.

[2] WorldQuant University. "Unit 4: Scalability and an Introduction to EOS". in: *MScFE 670 Data Feeds and Technology (C18-S4)* Module 5 (2020), pp. 21–27.

[3] Afiruddin Tapa, Soh Chuen Yean, and Shahrul Nizam Ahmad. "Modified Moving-average Crossover Trading Strategy: Evidence in Malaysia Equity Market". In: *International Journal of Economics and Financial Issues* S7.6 (2016), pp. 149–153. URL: https://pdfs.semanticscholar.org/a9b8/04feff6dd6b29bf0777f2b05727d7ed79e0a.pdf.

[4] Investopedia. "Sharpe Ratio". In: *Investopedia* (). URL: https://www.investopedia.com/terms/s/sharperatio.asp.

Task 2:

Replace this text with own answer to question: Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Example code snippet:

```
"""**Task 1.
Create time bars.**
"""

# Read the data
time_bars = pd.read_csv('time_bars.csv')
time_bars.index = pd.to_datetime(time_bars.index)

# Show example
dollar_bars.head()

```

Task 3:

Replace this text with own answer to question: Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Example code snippet:

```
"""**Task 2.
Plot the time bars.**
"""

# Plotting time bars
fig = go.Figure(data=go.Ohlc(x=time_bars['date'],
                    open=time_bars['open'],
                    high=time_bars['high'],
                    low=time_bars['low'],
                    close=time_bars['close']))
fig.update_layout(title = 'Time Bars')
fig.show()

```

Task 4:

Task 5:

Appendix: Source code

```
# -*- coding: utf-8 -*-
"""gw1_WQU_MLiF_GroupWork-sub1.ipynb

Original file is located at
    https://colab.research.google.com/drive/1Sp5O

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# WorldQuant University
##  (19/11) MScFE 650 Machine Learning in Finance (C18-S4)
## Group work Assignment  \ :: \  Timezone Group 2-A  \ :: \ Submission 1

Tea Toradze

November 2019

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"""

# Load packages
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import plotly.graph_objects as go

# %matplotlib inline
plt.rcParams['figure.figsize'] = [9, 5]



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# Read the data
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                     high=time_bars['high'],
                     low=time_bars['low'],
                     close=time_bars['close']))
fig.update_layout(title = 'Time Bars')
fig.show()

```

```
57
58
59  """**Task 3.
60  Compute the serial correlation**
61  """
```

References

Investopedia. "Sharpe Ratio". In: *Investopedia* (). URL: https://www.investopedia.com/terms/s/sharperatio.asp.

Shreve, S. E. *Stochastic calculus for finance II: Continuous-time models*. Volume II, Springer Science, 2004.

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WorldQuant University. "Unit 4: Scalability and an Introduction to EOS". In: *MScFE 670 Data Feeds and Technology (C18-S4)* Module 5 (2020), pp. 21–27.