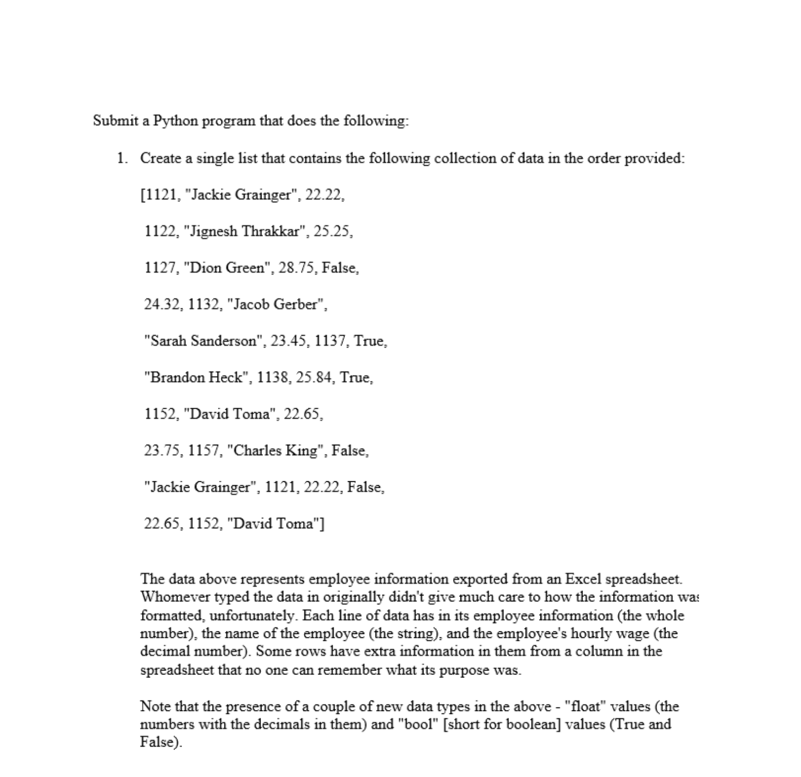
SALARY MANAGER CALCULATOR

CSC 1500 Final Project - Bryan Lor

OLD SOFTWARE



Submit a Python program that does the following:

1. Create a single list that contains the following collection of data in the order provided:

   [1121, "Jackie Grainger", 22.22,

   1122, "Jignesh Thrakkar", 25.25,

   1127, "Dion Green", 28.75, False,

   24.32, 1132, "Jacob Gerber",

   "Sarah Sanderson", 23.45, 1137, True,

   "Brandon Heck", 1138, 25.84, True,

   1152, "David Toma", 22.65,

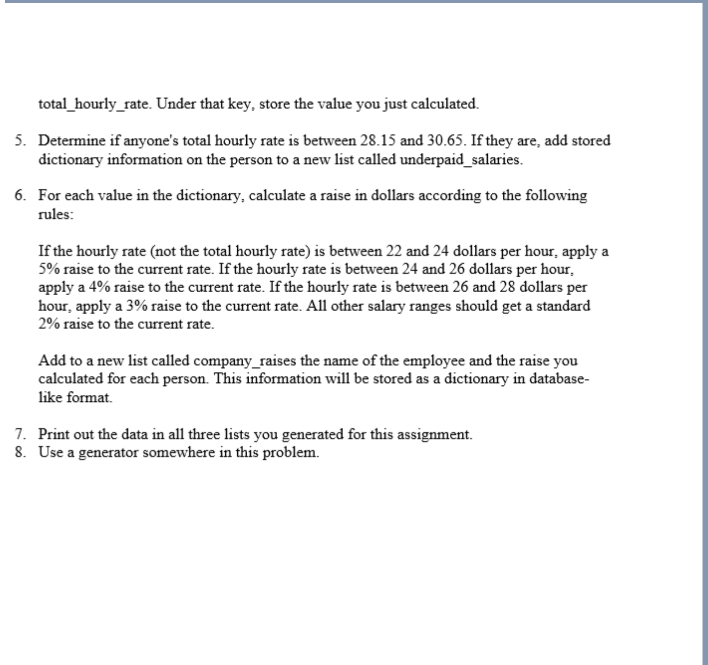
   23.75, 1157, "Charles King", False,

   "Jackie Grainger", 1121, 22.22, False,

   22.65, 1152, "David Toma"]

   The data above represents employee information exported from an Excel spreadsheet. Whomever typed the data in originally didn't give much care to how the information was formatted, unfortunately. Each line of data has in its employee information (the whole number), the name of the employee (the string), and the employee's hourly wage (the decimal number). Some rows have extra information in them from a column in the spreadsheet that no one can remember what its purpose was.

   Note that the presence of a couple of new data types in the above - "float" values (the numbers with the decimals in them) and "bool" [short for boolean] values (True and False).



total_hourly_rate. Under that key, store the value you just calculated.

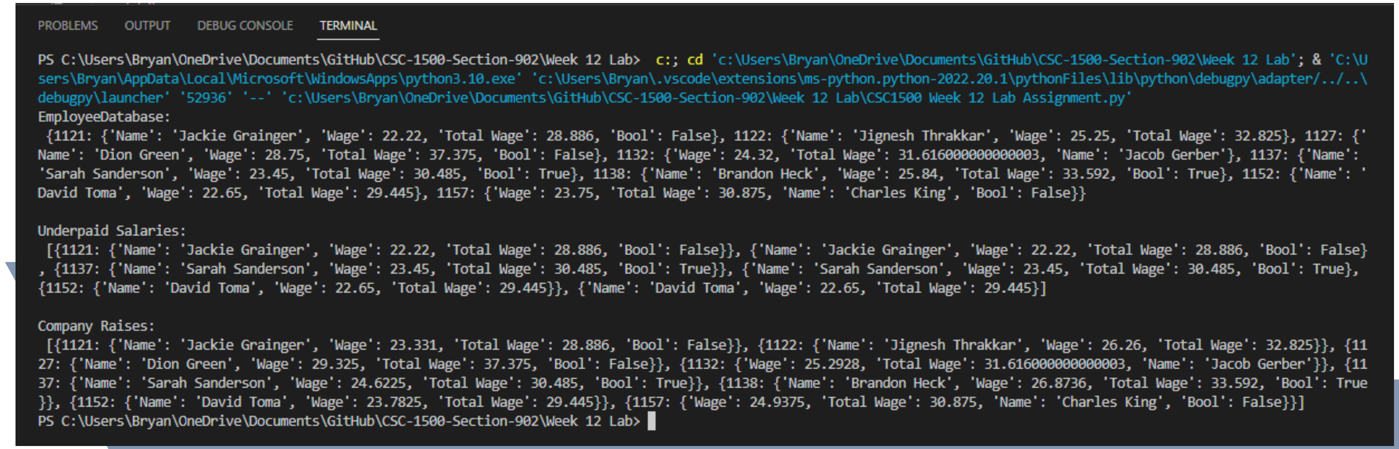
5. Determine if anyone's total hourly rate is between 28.15 and 30.65. If they are, add stored dictionary information on the person to a new list called underpaid_salaries.

6. For each value in the dictionary, calculate a raise in dollars according to the following rules:

   If the hourly rate (not the total hourly rate) is between 22 and 24 dollars per hour, apply a 5% raise to the current rate. If the hourly rate is between 24 and 26 dollars per hour, apply a 4% raise to the current rate. If the hourly rate is between 26 and 28 dollars per hour, apply a 3% raise to the current rate. All other salary ranges should get a standard 2% raise to the current rate.

   Add to a new list called company_raises the name of the employee and the raise you calculated for each person. This information will be stored as a dictionary in database-like format.

7. Print out the data in all three lists you generated for this assignment.
8. Use a generator somewhere in this problem.



```
PS C:\Users\Bryan\OneDrive\Documents\GitHub\CSC-1500-Section-902\Week 12 Lab>  c:; cd 'c:\Users\Bryan\OneDrive\Documents\GitHub\CSC-1500-Section-902\Week 12 Lab'; & 'C:\U
sers\Bryan\AppData\Local\Microsoft\WindowsApps\python3.10.exe' 'c:\Users\Bryan\.vscode\extensions\ms-python.python-2022.20.1\pythonFiles\lib\python\debugpy\adapter/../..\
debugpy\launcher' '52936' '--' 'c:\Users\Bryan\OneDrive\Documents\GitHub\CSC-1500-Section-902\Week 12 Lab\CSC1500 Week 12 Lab Assignment.py'
EmployeeDatabase:
 {1121: {'Name': 'Jackie Grainger', 'Wage': 22.22, 'Total Wage': 28.886, 'Bool': False}, 1122: {'Name': 'Jignesh Thrakkar', 'Wage': 25.25, 'Total Wage': 32.825}, 1127: {'
Name': 'Dion Green', 'Wage': 28.75, 'Total Wage': 37.375, 'Bool': False}, 1132: {'Wage': 24.32, 'Total Wage': 31.616000000000003, 'Name': 'Jacob Gerber'}, 1137: {'Name':
'Sarah Sanderson', 'Wage': 23.45, 'Total Wage': 30.485, 'Bool': True}, 1138: {'Name': 'Brandon Heck', 'Wage': 25.84, 'Total Wage': 33.592, 'Bool': True}, 1152: {'Name': '
David Toma', 'Wage': 22.65, 'Total Wage': 29.445}, 1157: {'Wage': 23.75, 'Total Wage': 30.875, 'Name': 'Charles King', 'Bool': False}}

Underpaid Salaries:
 [{1121: {'Name': 'Jackie Grainger', 'Wage': 22.22, 'Total Wage': 28.886, 'Bool': False}}, {'Name': 'Jackie Grainger', 'Wage': 22.22, 'Total Wage': 28.886, 'Bool': False}
, {1137: {'Name': 'Sarah Sanderson', 'Wage': 23.45, 'Total Wage': 30.485, 'Bool': True}}, {'Name': 'Sarah Sanderson', 'Wage': 23.45, 'Total Wage': 30.485, 'Bool': True},
{1152: {'Name': 'David Toma', 'Wage': 22.65, 'Total Wage': 29.445}}, {'Name': 'David Toma', 'Wage': 22.65, 'Total Wage': 29.445}]

Company Raises:
 [{1121: {'Name': 'Jackie Grainger', 'Wage': 23.331, 'Total Wage': 28.886, 'Bool': False}}, {1122: {'Name': 'Jignesh Thrakkar', 'Wage': 26.26, 'Total Wage': 32.825}}, {11
27: {'Name': 'Dion Green', 'Wage': 29.325, 'Total Wage': 37.375, 'Bool': False}}, {1132: {'Wage': 25.2928, 'Total Wage': 31.616000000000003, 'Name': 'Jacob Gerber'}}, {11
37: {'Name': 'Sarah Sanderson', 'Wage': 24.6225, 'Total Wage': 30.485, 'Bool': True}}, {1138: {'Name': 'Brandon Heck', 'Wage': 26.8736, 'Total Wage': 33.592, 'Bool': True
}}, {1152: {'Name': 'David Toma', 'Wage': 23.7825, 'Total Wage': 29.445}}, {1157: {'Wage': 24.9375, 'Total Wage': 30.875, 'Name': 'Charles King', 'Bool': False}}]
PS C:\Users\Bryan\OneDrive\Documents\GitHub\CSC-1500-Section-902\Week 12 Lab> 
```

ISSUES

File Importing

Product did not utilize actual excel files as it's use case scenario.

Graphical Interface

A graphical interface was non-existent for the previous version.

Code Architect

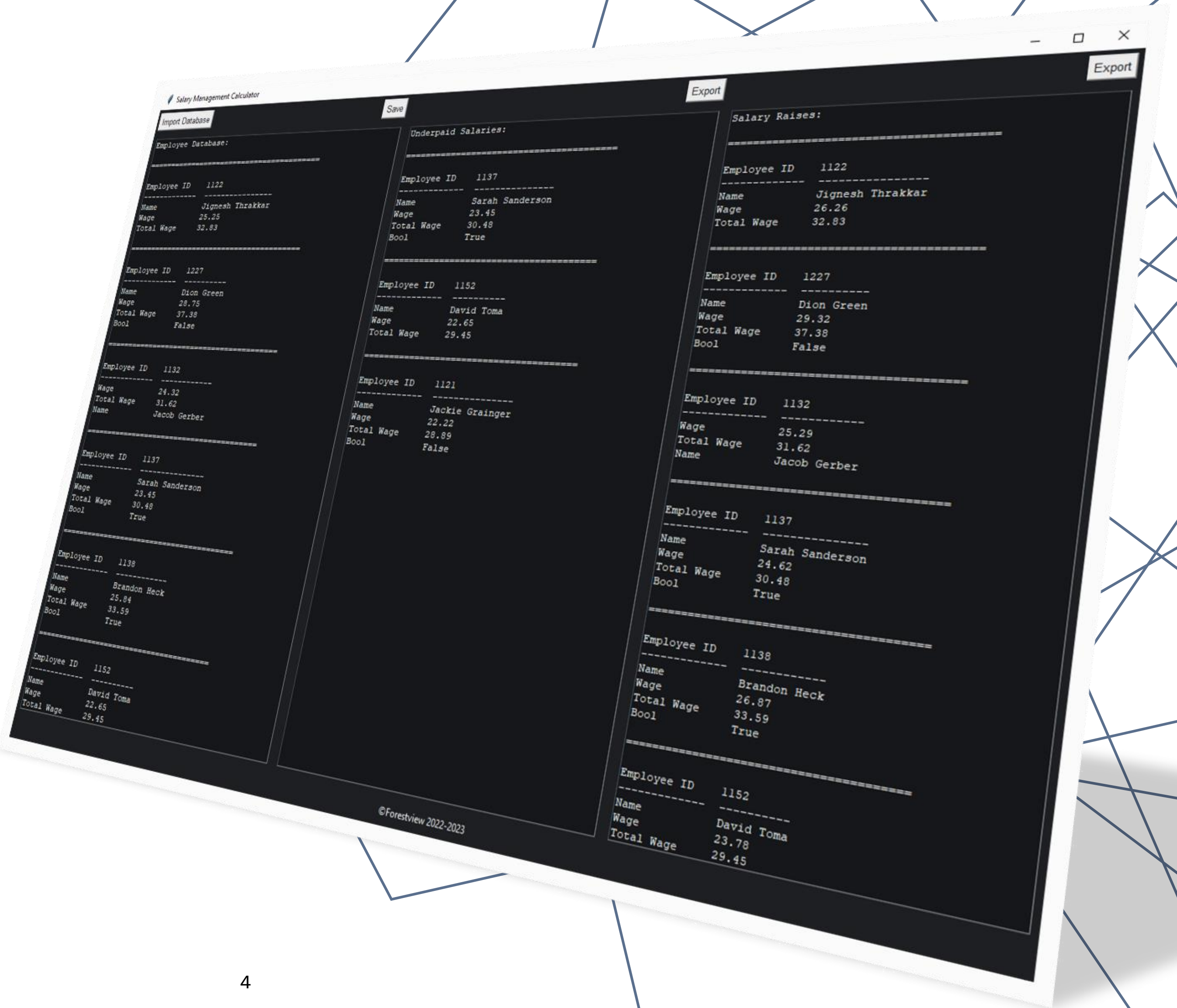
Original product had poor code structure and organization.

File Exporting

Lack of file save and export system making product impractical for real world usage.

UPDATED SOFTWARE

A complete overhaul of assignment 12 that encompasses modern features.



```
Employee Database:

========================================

Employee ID    1122
-----------    ---------------
Name           Jignesh Thrakkar
Wage           25.25
Total Wage     32.83

========================================

Employee ID    1227
-----------    ----------
Name           Dion Green
Wage           28.75
Total Wage     37.38
Bool           False

========================================

Employee ID    1132
-----------    ------------
Wage           24.32
Total Wage     31.62
Name           Jacob Gerber

========================================

Employee ID    1137
-----------    ---------------
Name           Sarah Sanderson
Wage           23.45
Total Wage     30.48
Bool           True

========================================

Employee ID    1138
-----------    ------------
Name           Brandon Heck
Wage           25.84
Total Wage     33.59
Bool           True

========================================

Employee ID    1152
-----------    ----------
Name           David Toma
Wage           22.65
Total Wage     29.45
```

```
Underpaid Salaries:

========================================

Employee ID    1137
-----------    ---------------
Name           Sarah Sanderson
Wage           23.45
Total Wage     30.48
Bool           True

========================================

Employee ID    1152
-----------    ----------
Name           David Toma
Wage           22.65
Total Wage     29.45

========================================

Employee ID    1121
-----------    ---------------
Name           Jackie Grainger
Wage           22.22
Total Wage     28.89
Bool           False
```

```
Salary Raises:

========================================

Employee ID    1122
-----------    ----------------
Name           Jignesh Thrakkar
Wage           26.26
Total Wage     32.83

========================================

Employee ID    1227
-----------    ----------
Name           Dion Green
Wage           29.32
Total Wage     37.38
Bool           False

========================================

Employee ID    1132
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Wage           25.29
Total Wage     31.62
Name           Jacob Gerber

========================================

Employee ID    1137
-----------    ---------------
Name           Sarah Sanderson
Wage           24.62
Total Wage     30.48
Bool           True

========================================

Employee ID    1138
-----------    ------------
Name           Brandon Heck
Wage           26.87
Total Wage     33.59
Bool           True

========================================

Employee ID    1152
-----------    ----------
Name           David Toma
Wage           23.78
Total Wage     29.45
```

NEW FEATURES

Graphical Interface

-Modernized Tkinter GUI

File Importing/Exporting

-Excel sheet information loading

-Excel sheet information exporting

Refactored Code

-Clean code architect with modular functions

-Object Orientated Programming

Libraries

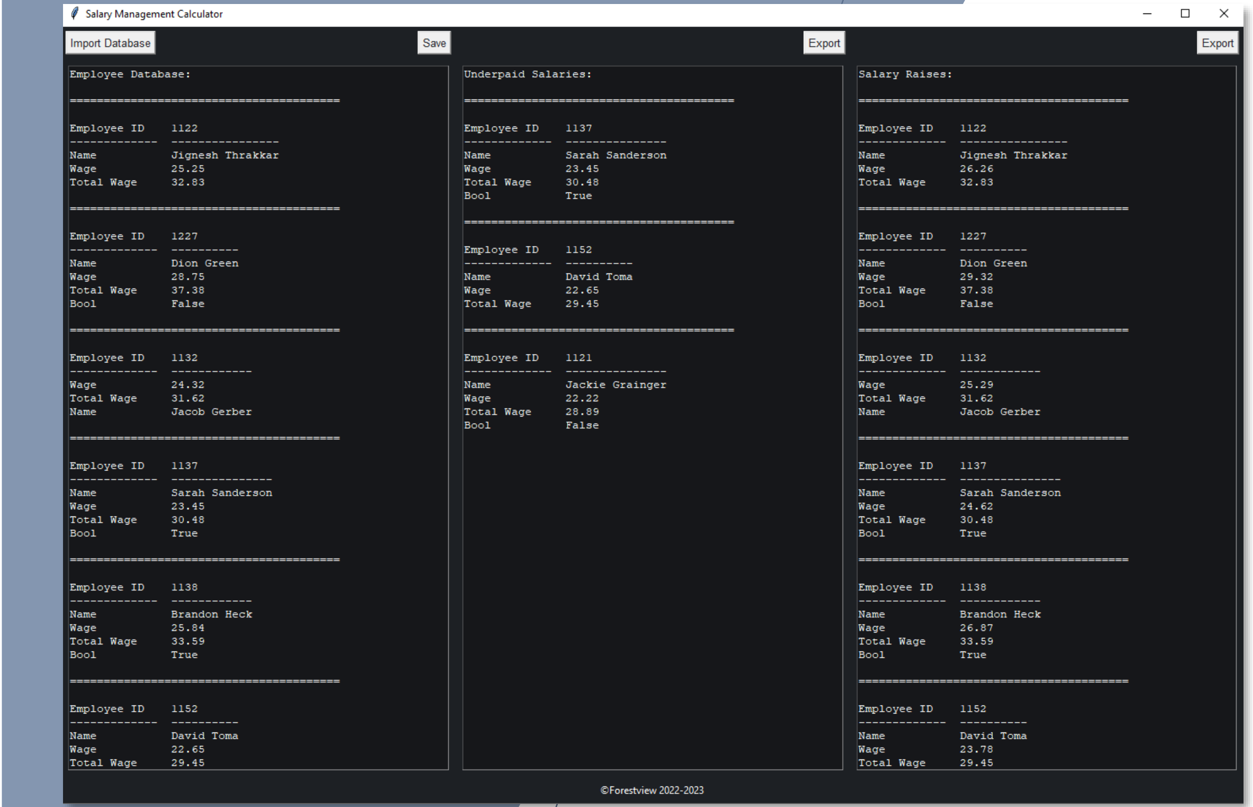
-Tkinter

-Pandas

-Itertools

-Os

GRAPHICAL INTERFACE



```
Employee Database:

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Employee ID    1122
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Wage           28.75
Total Wage     37.38
Bool           False

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Total Wage     31.62
Name           Jacob Gerber

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Employee ID    1137
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Wage           23.45
Total Wage     30.48
Bool           True

========================================

Employee ID    1138
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Name           Brandon Heck
Wage           25.84
Total Wage     33.59
Bool           True

========================================

Employee ID    1152
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Name           David Toma
Wage           22.65
Total Wage     29.45
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Underpaid Salaries:

========================================

Employee ID    1137
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Name           Sarah Sanderson
Wage           23.45
Total Wage     30.48
Bool           True

========================================

Employee ID    1152
-------------  ----------
Name           David Toma
Wage           22.65
Total Wage     29.45

========================================

Employee ID    1121
-------------  ---------------
Name           Jackie Grainger
Wage           22.22
Total Wage     28.89
Bool           False
```

```
Salary Raises:

========================================

Employee ID    1122
-------------  ----------------
Name           Jignesh Thrakkar
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Total Wage     32.83

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Employee ID    1137
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Bool           True

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Employee ID    1138
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Name           Brandon Heck
Wage           26.87
Total Wage     33.59
Bool           True

========================================

Employee ID    1152
-------------  ----------
Name           David Toma
Wage           23.78
Total Wage     29.45
```

DESIGN

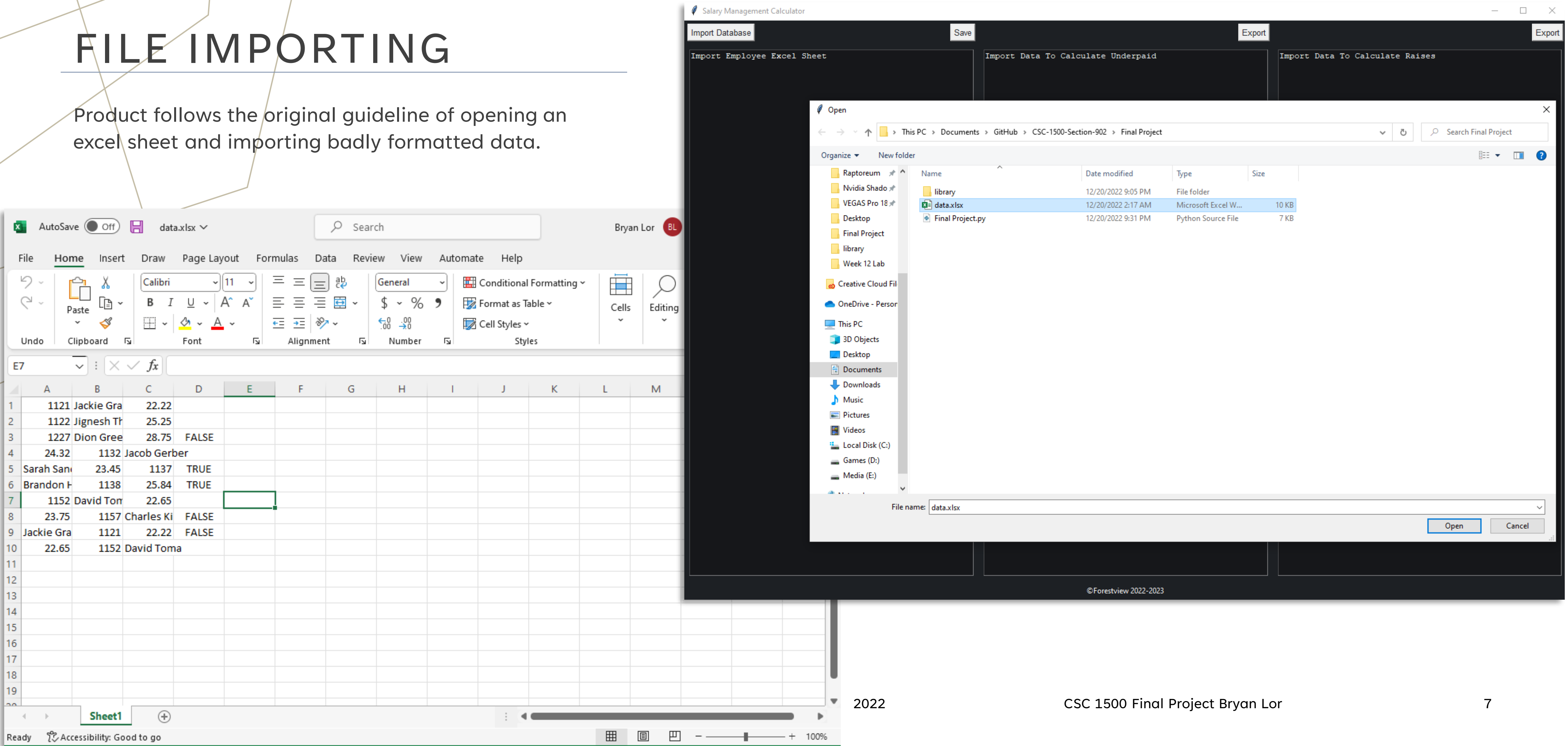
Modernized design utilizing a dark theme

ACCESSIBILITY

Minimalistic and easy to use

FILE IMPORTING

Product follows the original guideline of opening an excel sheet and importing badly formatted data.



E7

	A	B	C	D	E
1	1121	Jackie Gra	22.22		
2	1122	Jignesh Th	25.25		
3	1227	Dion Gree	28.75	FALSE	
4	24.32	1132	Jacob Gerber		
5	Sarah San	23.45	1137	TRUE	
6	Brandon H	1138	25.84	TRUE	
7	1152	David Tom	22.65		
8	23.75	1157	Charles Ki	FALSE	
9	Jackie Gra	1121	22.22	FALSE	
10	22.65	1152	David Toma		

```
Import Employee Excel Sheet
Import Data To Calculate Underpaid
Import Data To Calculate Raises
```

This PC › Documents › GitHub › CSC-1500-Section-902 › Final Project

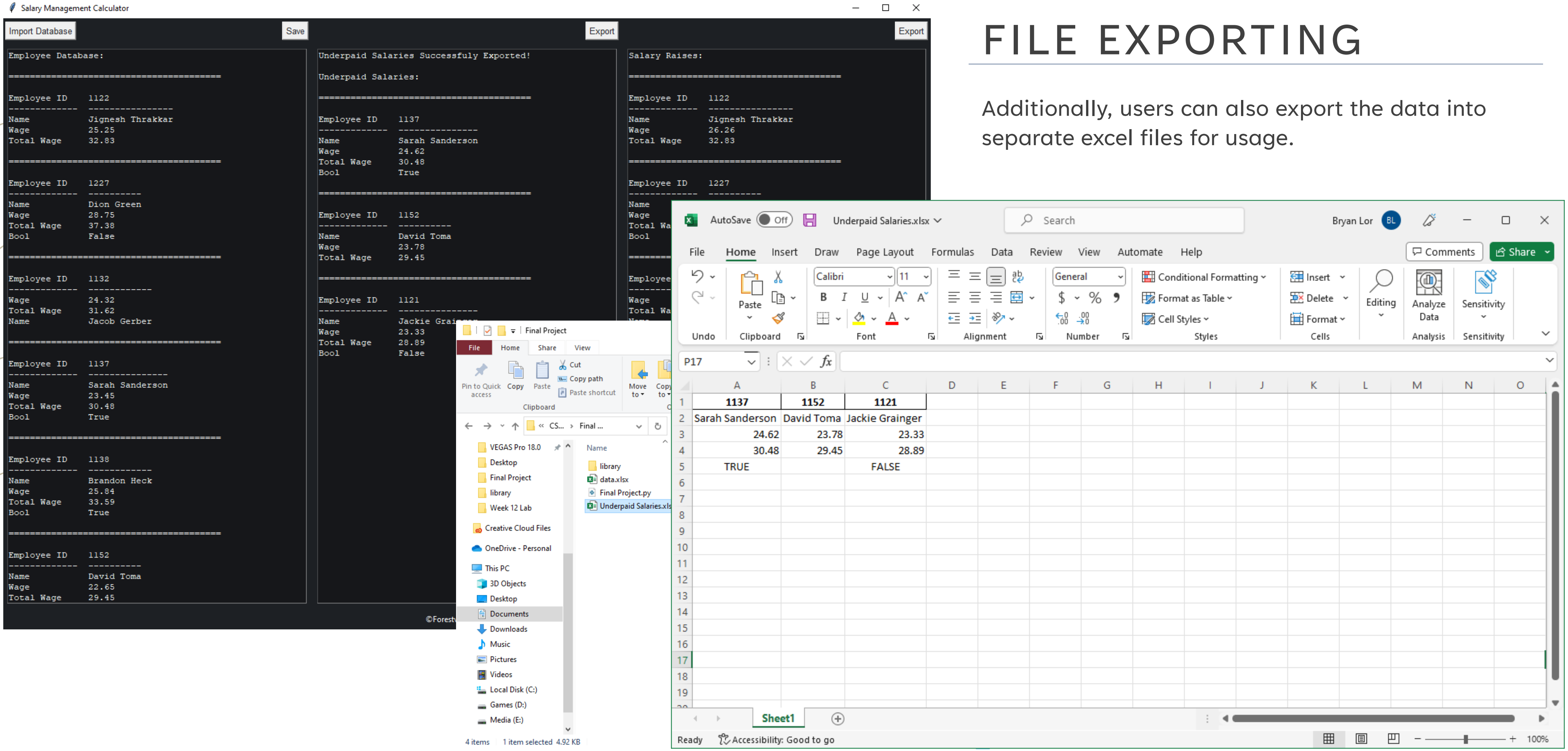
Search Final Project

Name	Date modified	Type	Size
library	12/20/2022 9:05 PM	File folder	
data.xlsx	12/20/2022 2:17 AM	Microsoft Excel W...	10 KB
Final Project.py	12/20/2022 9:31 PM	Python Source File	7 KB

File name: data.xlsx

FILE EXPORTING

Additionally, users can also export the data into separate excel files for usage.



```
Employee Database:

========================================

Employee ID    1122
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Name           Jignesh Thrakkar
Wage           25.25
Total Wage     32.83

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Employee ID    1227
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Name           Dion Green
Wage           28.75
Total Wage     37.38
Bool           False

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Total Wage     31.62
Name           Jacob Gerber

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Employee ID    1137
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Name           Sarah Sanderson
Wage           23.45
Total Wage     30.48
Bool           True

========================================

Employee ID    1138
-------------  ------------
Name           Brandon Heck
Wage           25.84
Total Wage     33.59
Bool           True

========================================

Employee ID    1152
-------------  ----------
Name           David Toma
Wage           22.65
Total Wage     29.45
```

```
Underpaid Salaries Successfuly Exported!

Underpaid Salaries:

========================================

Employee ID    1137
-------------  ---------------
Name           Sarah Sanderson
Wage           24.62
Total Wage     30.48
Bool           True

========================================

Employee ID    1152
-------------  ----------
Name           David Toma
Wage           23.78
Total Wage     29.45

========================================

Employee ID    1121
-------------  ---------------
Name           Jackie Grai
Wage           23.33
Total Wage     28.89
Bool           False
```

```
Salary Raises:

========================================

Employee ID    1122
-------------  ---------------
Name           Jignesh Thrakkar
Wage           26.26
Total Wage     32.83

========================================

Employee ID    1227
-------------  ----------
Name
Wage
Total Wa
Bool

=====

Employee
Wage
Total Wa
```

	A	B	C
1	1137	1152	1121
2	Sarah Sanderson	David Toma	Jackie Grainger
3	24.62	23.78	23.33
4	30.48	29.45	28.89
5	TRUE		FALSE

SUMMARY

Assignment 12 has been completely overhauled to now follow its prompt more practically. The newer software features a modern GUI alongside a complete file load and save system. As a result, the entire code base has been restructured into modularized functions that utilizes OOP.

THANK YOU

GitHub Link: https://github.com/Bryan-Lor/CSC-1500-Section-902/tree/main/Final%20Project

Bryan Lor

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