Screen Capture #1

Screen Capture #2

```
def calculate_future_value(monthly_investment, yearly_interest, years):
    # convert yearly values to monthly values
    monthly_interest_rate = yearly_interest / 11 / 100
    months = years * 12

# calculate future value
future_value = 0.0
for i in range(0, months):
    future_value += monthly_investment
    monthly_interest = future_value * monthly_interest_rate
    future_value += monthly_interest
return future_value
```

Screen Capture #3

Screen Capture #4

```
zmeyer@syn0095:~/Documents/projects/CIMP8A$ /usr/bin/env /usr/local/bin/python3
.9 /Users/zmeyer/.vscode/extensions/ms-python.python-2022.0.1814523869/pythonFil
es/lib/python/debugpy/launcher 58653 -- "/Users/zmeyer/Documents/projects/CIMP8A
/Week 4/future_value_2.py"
Welcome to the Future Value Calculator
Future Value = 8004.716457434104
```

Screen Capture #5

```
12
        def calculate future value(monthly investment, yearly interest, years):
  13
            # convert yearly values to monthly values
  14
            monthly_interest_rate = yearly_interest / 11 / 100
15
            months = years * 12
  16
  17
            # calculate future value
            future_value = 0.0
            for i in range(0, months):
  20
                future_value += monthly_investment
  21
                monthly interest = future value * monthly interest rate
                future_value += monthly_interest
  24
            return future_value
```

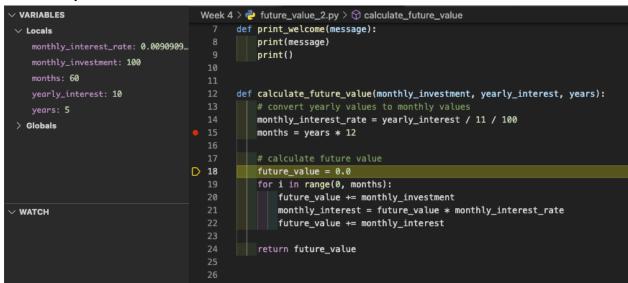
Screen Capture #6

```
VARIABLES
                                      Week 4 > ₱ future_value_2.py > ♥ calculate_future_value
                                             def print_welcome(message):

∨ Locals

                                                 print(message)
    monthly_interest_rate: 0.0090909...
                                                 print()
    monthly_investment: 100
    yearly_interest: 10
                                             def calculate_future_value(monthly_investment, yearly_interest, years):
    years: 5
 > Globals
                                                 monthly_interest_rate = yearly_interest / 11 / 100
                                    15
                                                 months = years * 12
                                                 future value = 0.0
                                                 for i in range(0, months)
```

Screen Capture #7



Extra Credit #1

```
Continue? (y/n): zmeyer@syn0095:~/Documents/projects/CIMP8A$ cd /Users/zmeyer/D /CIMP8A; /usr/bin/env /usr/local/bin/python3.9 /Users/zmeyer/.vscode/extensions /ms-python.python-2022.0.1814523869/pythonFiles/lib/python/debugpy/launcher 5090 3 -- "/Users/zmeyer/Documents/projects/CIMP8A/Week 4/tax.py" Sales Tax Calculator

Enter total: 99.99
Total after tax: 105.99
zmeyer@syn0095:~/Documents/projects/CIMP8A$
```

Extra Credit #2

```
/ms-python.python-2022.0.1814523869/pythonFiles/lib/python/debugpy/launcher 4921
7 -- "/Users/zmeyer/Documents/projects/CIMP8A/Week 4/guess_game.py"
Guess the number!
Enter the upper limit for the range of numbers: 100
I'm thinking of a number from 1 to 100
Your guess: 50
Too high.
Your guess: 25
Too low.
Your guess: 37
Too high.
Your guess: 30
Too low.
Your guess: 34
Too high.
Your guess: 32
Too high.
Your guess: 31
You guessed it in 7 tries.
Play again? (y/n): y
Enter the upper limit for the range of numbers: 10 I'm thinking of a number from 1 to 10
Your guess: 5
Too low.
Your guess: 7
You guessed it in 2 tries.
Play again? (y/n): n
Bye!
```