**Module 7: Critical Thinking Assignment**

Chioma Chance

CSC500

07/26/2024

# Introduction

For this assignment, I was asked to create 3 sets of dictionaries that contained the same (key) course numbers that each mapped to different values of: Room Number, Professor, and Meeting Time. Upon creating the dictionaries, I then built a function that could prompt the user to input a course number, that will then display each value. I also used the try/except method that we learned in chapter 7 of zybooks to alert the user if they imputed an invalid option.

## Creating Python Programs

**Pseudocode:**

START

1. Define a dictionary 'room\_number' with key-value pairs:

- 'CSC101': 3004

- 'CSC102': 4501

- 'CSC103': 6755

- 'NET110': 1244

- 'COM241': 1411

2. Define a dictionary 'instructors' with key-value pairs:

- 'CSC101': 'Haynes'

- 'CSC102': 'Alvarado'

- 'CSC103': 'Rich'

- 'NET110': 'Burke'

- 'COM241': 'Lee'

3. Define a dictionary 'meeting\_time' with key-value pairs:

- 'CSC101': '8:00 a.m.'

- 'CSC102': '9:00 a.m.'

- 'CSC103': '10:00 a.m.'

- 'NET110': '11:00 a.m.'

- 'COM241': '1:00 p.m.'

4. Define function 'courseInfo':

a. Prompt user for input:

PRINT 'Enter course number (CSC101, CSC102, CSC103, NET110, COM241): '

READ input into variable 'course\_number'

b. Try to execute the following block:

i. Retrieve 'room' from 'room\_number' using 'course\_number' as key

ii. Retrieve 'instructor' from 'instructors' using 'course\_number' as key

iii. Retrieve 'time' from 'meeting\_time' using 'course\_number' as key

iv. PRINT 'Room Number: ', room

v. PRINT 'Course Instructor: ', instructor

vi. PRINT 'Meeting Time: ', time

c. Except when a 'KeyError' occurs:

i. PRINT 'Invalid option. Please select a valid option.'

ii. PRINT 'Courses: CSC101, CSC102, CSC103, NET110, COM241'

5. Call 'courseInfo' function

END

**Source code:**

# Creating Python Programs

'''

Key-Value Pairs: Room Number

'''

room\_number = {

    'CSC101': 3004,

    'CSC102': 4501,

    'CSC103': 6755,

    'NET110': 1244,

    'COM241': 1411

}

'''

Key-Value Pairs: Instructors

'''

instructors = {

    'CSC101': 'Haynes',

    'CSC102': 'Alvarado',

    'CSC103': 'Rich',

    'NET110': 'Burke',

    'COM241': 'Lee'

}

'''

Key-Value Pairs: Meeting Time

'''

meeting\_time = {

    'CSC101': '8:00 a.m.',

    'CSC102': '9:00 a.m.',

    'CSC103': '10:00 a.m.',

    'NET110': '11:00 a.m.',

    'COM241': '1:00 p.m.'

}

# Create function to handle the mapping

def courseInfo():

    course\_number = input(

        'Enter course number (CSC101, CSC102, CSC103, NET110, COM241):\n')

    # use try/except to only allow user to select within the choices

    try:

        room = room\_number[course\_number]

        instructor = instructors[course\_number]

        time = meeting\_time[course\_number]

        # print statements

        print(f'Room Number: {room}')

        print(f'Course Instructor: {instructor}')

        print(f'Meeting Time: {time}')

    except KeyError:

        # user can choose from given courses

        print('Invalid option. Please select a valid option')

        print('Courses: CSC101, CSC102, CSC103, NET110, COM241')

# call the function

courseInfo()

## Screenshots

**A screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generatedA screenshot of a computer program

Description automatically generatedA screenshot of a computer program

Description automatically generated**

# **GIT repository link**

<https://github.com/Ch1T1me/CSC500.git>

# **Challenges**

For this assignment, I didn’t really have any challenges. It was more of a fun review for me. It did take a while to jumpstart my brain and remember how to format a dictionary (I was forgetting to use ‘’ around the key and value). After I corrected that, creating the rest of the code was simple. I even used the method of try/except that we just learned in chapter 7 within my code.

# **References**

1. ZyBooks. "Chapter 7: Dictionaries and Sets." *Programming in Python 3*. ZyBooks. <https://www.zybooks.com>. Accessed 26 July 2024.
2. Python Software Foundation. "Errors and Exceptions." Python 3 Documentation. <https://docs.python.org/3/tutorial/errors.html>. Accessed 26 July 2024.
3. Python Software Foundation. "The try statement." Python 3 Documentation. <https://docs.python.org/3/reference/compound_stmts.html#the-try-statement>. Accessed 26 July 2024.