



আন্তর্জাতিক ইসলামী বিশ্ববিদ্যালয় চট্টগ্রাম
الجامعة الإسلامية العالمية شيتاغونغ
International Islamic University Chittagong

LAB REPORT

COURSE TITLE : Programming with Python

SUBMITTED TO : Abdullahil Kafi
Assistant Professor
Department of CSE, IIUC

SUBMITTED BY :

NAME : Ameer Hamzah Daiyan

ID NO : C231185

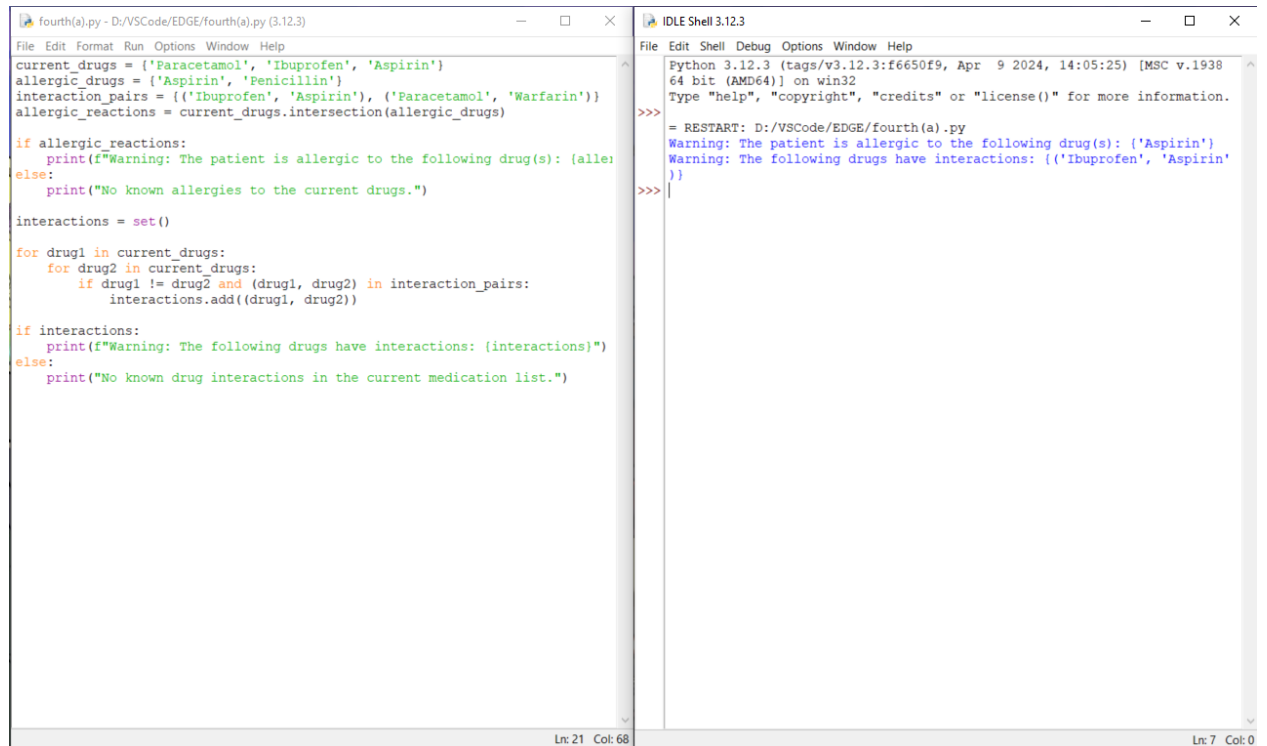
SEMESTER : 4th

DEPARTMENT : Computer Science and Engineering

DATE OF SUBMISSION : 16th December, 2024.

REMARK:

a) Drug finding using set



The image shows a VS Code editor window with a Python script named `fourth(a).py` and an IDLE Shell window showing the execution output.

Python Script (`fourth(a).py`):

```
current_drugs = {'Paracetamol', 'Ibuprofen', 'Aspirin'}
allergic_drugs = {'Aspirin', 'Penicillin'}
interaction_pairs = (('Ibuprofen', 'Aspirin'), ('Paracetamol', 'Warfarin'))
allergic_reactions = current_drugs.intersection(allergic_drugs)

if allergic_reactions:
    print(f"Warning: The patient is allergic to the following drug(s): {allergic_reactions}")
else:
    print("No known allergies to the current drugs.")

interactions = set()

for drug1 in current_drugs:
    for drug2 in current_drugs:
        if drug1 != drug2 and (drug1, drug2) in interaction_pairs:
            interactions.add((drug1, drug2))

if interactions:
    print(f"Warning: The following drugs have interactions: {interactions}")
else:
    print("No known drug interactions in the current medication list.")
```

IDLE Shell Output:

```
Python 3.12.3 (tags/v3.12.3:f6650f9, Apr 9 2024, 14:05:25) [MSC v.1938
64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: D:/VSCODE/EDGE/fourth(a).py
Warning: The patient is allergic to the following drug(s): {'Aspirin'}
Warning: The following drugs have interactions: (('Ibuprofen', 'Aspirin'
))
>>>
```

The status bar at the bottom indicates the current line and column: `Ln: 21 Col: 68` for the script and `Ln: 7 Col: 0` for the shell.

b) Students record with dictionary

The image shows a Python IDE with two panes. The left pane contains a Python script defining a dictionary of student records and printing it. The right pane shows the output of the script, which is a formatted dictionary representation of the data.

```
fourth(b).py - D:/VSCode/EDGE/fourth(b).py (3.12.3)
File Edit Format Run Options Window Help
students = {}
students['Daiyan'] = {'Name': 'Ameer Hamzah Daiyan', 'Gender': 'Male', 'Department': 'Computer Science and Engineering', 'Matric ID': 'C231184', 'Name': 'Ameer Hamzah Daiyan', 'Gender': 'Male', 'Semester': '4th'}
students['Moaz'] = {'Name': 'Muhammad Moaz', 'Gender': 'Male', 'Department': 'Computer Science and Engineering', 'Matric ID': 'C231187', 'Name': 'Muhammad Moaz', 'Gender': 'Male', 'Semester': '4th'}
students['Safayet'] = {'Name': 'Kazi Muhammad Safayet Khan Shourov', 'Gender': 'Male', 'Department': 'Computer Science and Engineering', 'Matric ID': 'C231181', 'Name': 'Kazi Muhammad Safayet Khan Shourov', 'Gender': 'Male', 'Semester': '4th'}
students['Miraz'] = {'Name': 'Muhammad Mohiul Islam Miraz', 'Gender': 'Male', 'Department': 'Computer Science and Engineering', 'Matric ID': 'C231197', 'Name': 'Muhammad Mohiul Islam Miraz', 'Gender': 'Male', 'Semester': '4th'}
students['Ibrahim'] = {'Name': 'Muhammad Ibrahim Abdullah', 'Gender': 'Male', 'Department': 'Computer Science and Engineering', 'Matric ID': 'C231183', 'Name': 'Muhammad Ibrahim Abdullah', 'Gender': 'Male', 'Semester': '4th'}
students['Junaid'] = {'Name': 'Muhammad Junaid Mahmud', 'Gender': 'Male', 'Department': 'Computer Science and Engineering', 'Matric ID': 'C231189', 'Name': 'Muhammad Junaid Mahmud', 'Gender': 'Male', 'Semester': '4th'}
students['Ahnaf'] = {'Name': 'Mostafa Ahnaf Hossain', 'Gender': 'Male', 'Department': 'Computer Science and Engineering', 'Matric ID': 'C231185', 'Name': 'Mostafa Ahnaf Hossain', 'Gender': 'Male', 'Semester': '4th'}

import pprint
pprint.pprint(students)
```

Python 3.12.3 (tags/v3.12.3:f6650f9, Apr 9 2024, 14:05:25) [MSC v.1938 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

```
>>>
= RESTART: D:/VSCode/EDGE/fourth(b).py
{'Ahnaf': {'Department': 'Computer Science and Engineering', 'Gender': 'Male', 'Matric ID': 'C231184', 'Name': 'Mostafa Ahnaf Hossain', 'Semester': '4th'}, 'Daiyan': {'Department': 'Computer Science and Engineering', 'Gender': 'Male', 'Matric ID': 'C231185', 'Name': 'Ameer Hamzah Daiyan', 'Semester': '4th'}, 'Ibrahim': {'Department': 'Computer Science and Engineering', 'Gender': 'Male', 'Matric ID': 'C231183', 'Name': 'Muhammad Ibrahim Abdullah', 'Semester': '4th'}, 'Junaid': {'Department': 'Computer Science and Engineering', 'Gender': 'Male', 'Matric ID': 'C231189', 'Name': 'Muhammad Junaid Mahmud', 'Semester': '4th'}, 'Miraz': {'Department': 'Computer Science and Engineering', 'Gender': 'Male', 'Matric ID': 'C231197', 'Name': 'Muhammad Mohiul Islam Miraz', 'Semester': '4th'}, 'Moaz': {'Department': 'Computer Science and Engineering', 'Gender': 'Male', 'Matric ID': 'C231187', 'Name': 'Muhammad Moaz', 'Semester': '4th'}, 'Safayet': {'Department': 'Computer Science and Engineering', 'Gender': 'Male', 'Matric ID': 'C231181', 'Name': 'Kazi Muhammad Safayet Khan Shourov', 'Semester': '4th'}}
>>>
```

Ln: 12 Col: 0

Ln: 40 Col: 0