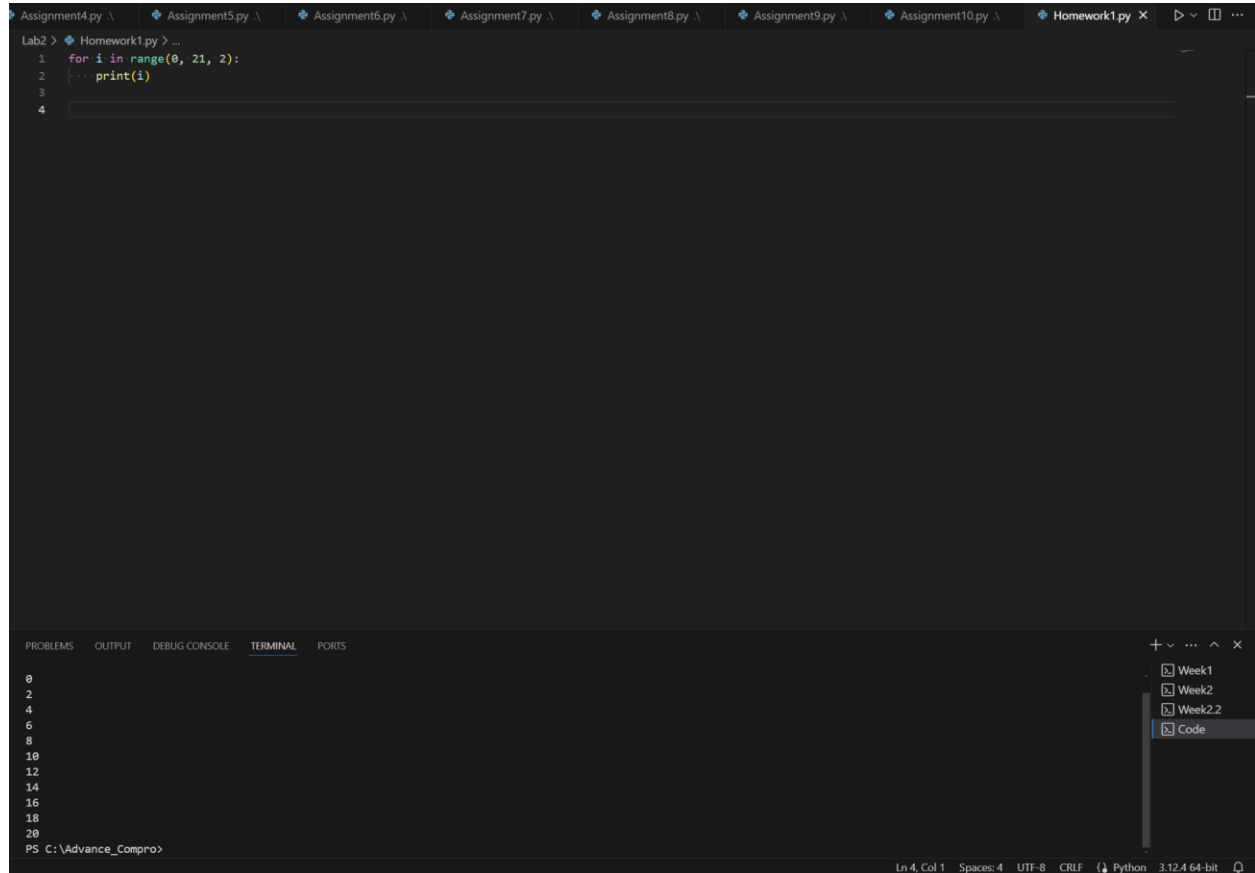


Homework Week 3

1.



The screenshot shows a Visual Studio Code editor window with a dark theme. The top bar displays several open files: Assignment4.py, Assignment5.py, Assignment6.py, Assignment7.py, Assignment8.py, Assignment9.py, Assignment10.py, and Homework1.py. The active file, Homework1.py, contains the following Python code:

```
Lab2 > Homework1.py > ...
1  for i in range(0, 21, 2):
2      print(i)
3
4
```

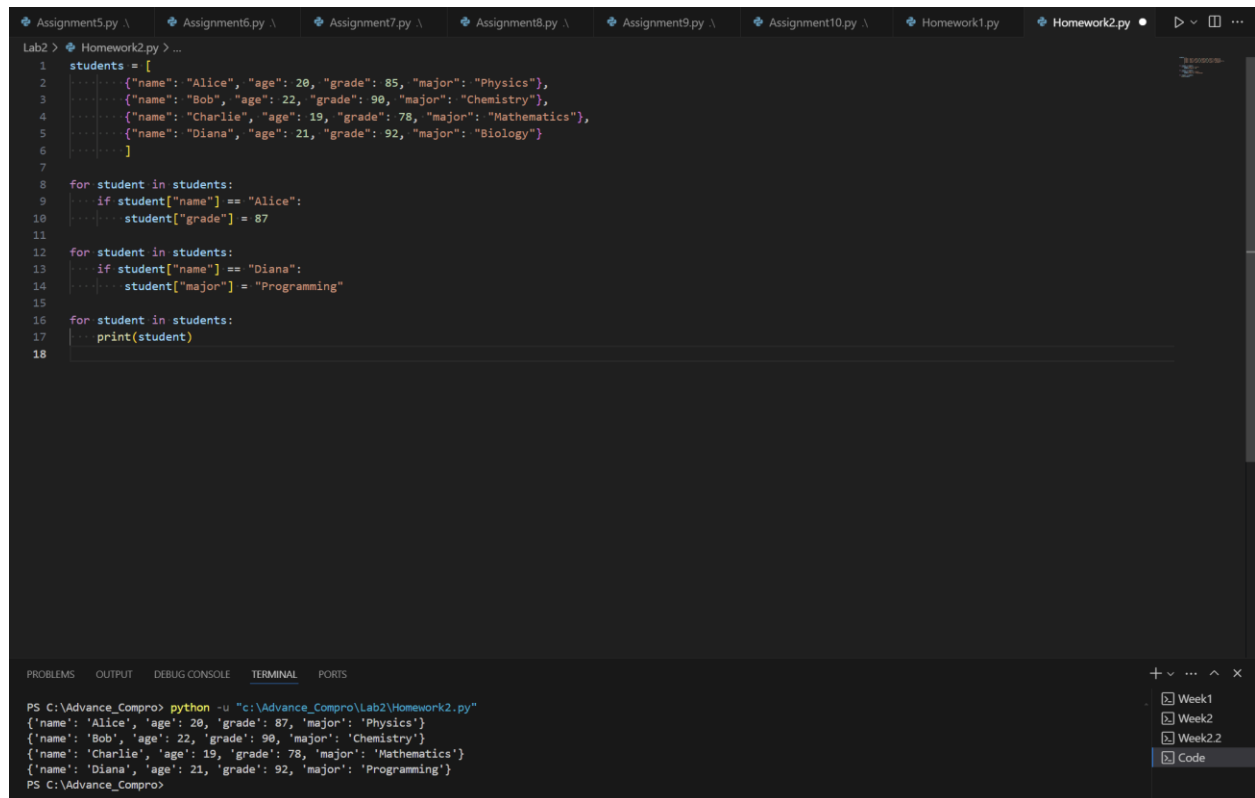
The bottom panel of the editor shows the 'TERMINAL' tab, which displays the output of the script:

```
0
2
4
6
8
10
12
14
16
18
20
PS C:\Advance_Compro>
```

On the right side of the bottom panel, there is a file explorer showing a directory structure with folders for Week1, Week2, Week2.2, and a file named Code.

At the bottom right of the editor, the status bar indicates the current position: Ln 4, Col 1, with settings for Spaces: 4, UTF-8, CRLF, Python, and 3.12.4 64-bit.

2.



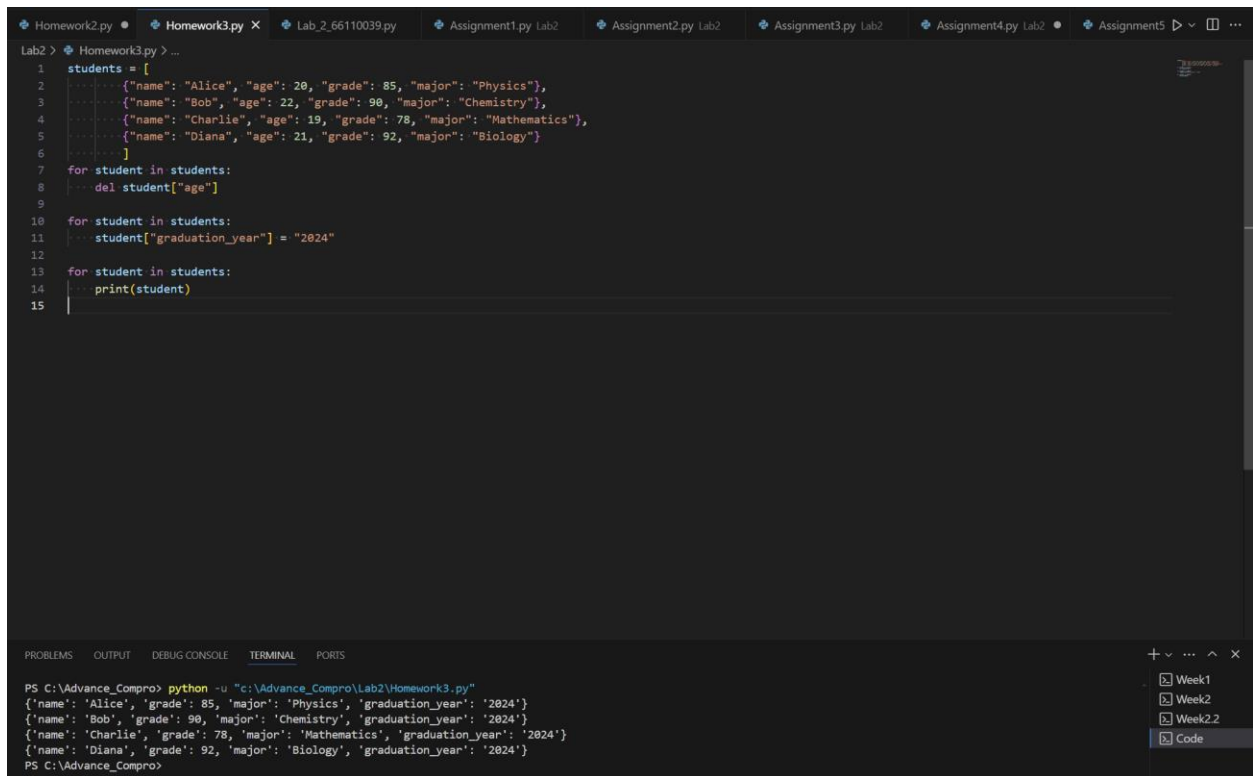
The image shows a Visual Studio Code editor window with a Python file named `Homework2.py` open. The code defines a list of student dictionaries and uses loops with conditional checks to filter and print specific students. The terminal at the bottom shows the command to run the script and the resulting output, which lists the details of Alice, Bob, Charlie, and Diana.

```
1 students = [  
2     {'name': 'Alice', 'age': 20, 'grade': 85, 'major': 'Physics'},  
3     {'name': 'Bob', 'age': 22, 'grade': 90, 'major': 'Chemistry'},  
4     {'name': 'Charlie', 'age': 19, 'grade': 78, 'major': 'Mathematics'},  
5     {'name': 'Diana', 'age': 21, 'grade': 92, 'major': 'Biology'}  
6 ]  
7  
8 for student in students:  
9     if student['name'] == 'Alice':  
10         student['grade'] = 87  
11  
12 for student in students:  
13     if student['name'] == 'Diana':  
14         student['major'] = 'Programming'  
15  
16 for student in students:  
17     print(student)  
18
```

Terminal Output:

```
PS C:\Advance_Compro> python -u "C:\Advance_Compro\Lab2\Homework2.py"  
{'name': 'Alice', 'age': 20, 'grade': 87, 'major': 'Physics'}  
{'name': 'Bob', 'age': 22, 'grade': 90, 'major': 'Chemistry'}  
{'name': 'Charlie', 'age': 19, 'grade': 78, 'major': 'Mathematics'}  
{'name': 'Diana', 'age': 21, 'grade': 92, 'major': 'Programming'}  
PS C:\Advance_Compro>
```

3.



The image shows a Visual Studio Code editor window with a Python file named `Homework3.py` open. The script defines a list of student dictionaries, iterates through them to remove the 'age' key and add a 'graduation_year' key with the value '2024', and then prints the modified list. The terminal at the bottom shows the command `python -u "c:\Advance_Copro\Lab2\Homework3.py"` and the resulting output, which is a list of dictionaries with the 'age' key removed and 'graduation_year' added.

```
1 students = [  
2     {'name': 'Alice', 'age': 20, 'grade': 85, 'major': 'Physics'},  
3     {'name': 'Bob', 'age': 22, 'grade': 90, 'major': 'Chemistry'},  
4     {'name': 'Charlie', 'age': 19, 'grade': 78, 'major': 'Mathematics'},  
5     {'name': 'Diana', 'age': 21, 'grade': 92, 'major': 'Biology'}  
6 ]  
7 for student in students:  
8     del student["age"]  
9  
10 for student in students:  
11     student["graduation_year"] = "2024"  
12  
13 for student in students:  
14     print(student)  
15
```

```
PS C:\Advance_Copro> python -u "c:\Advance_Copro\Lab2\Homework3.py"  
{'name': 'Alice', 'grade': 85, 'major': 'Physics', 'graduation_year': '2024'}  
{'name': 'Bob', 'grade': 90, 'major': 'Chemistry', 'graduation_year': '2024'}  
{'name': 'Charlie', 'grade': 78, 'major': 'Mathematics', 'graduation_year': '2024'}  
{'name': 'Diana', 'grade': 92, 'major': 'Biology', 'graduation_year': '2024'}  
PS C:\Advance_Copro>
```