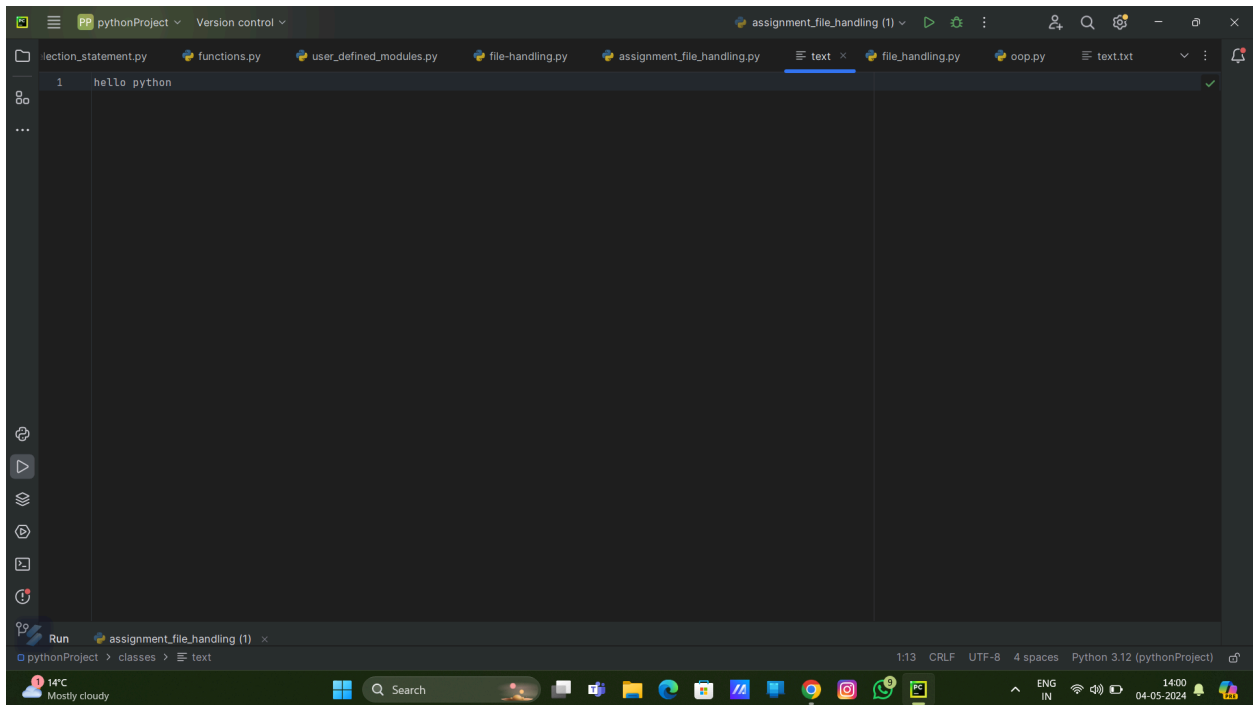
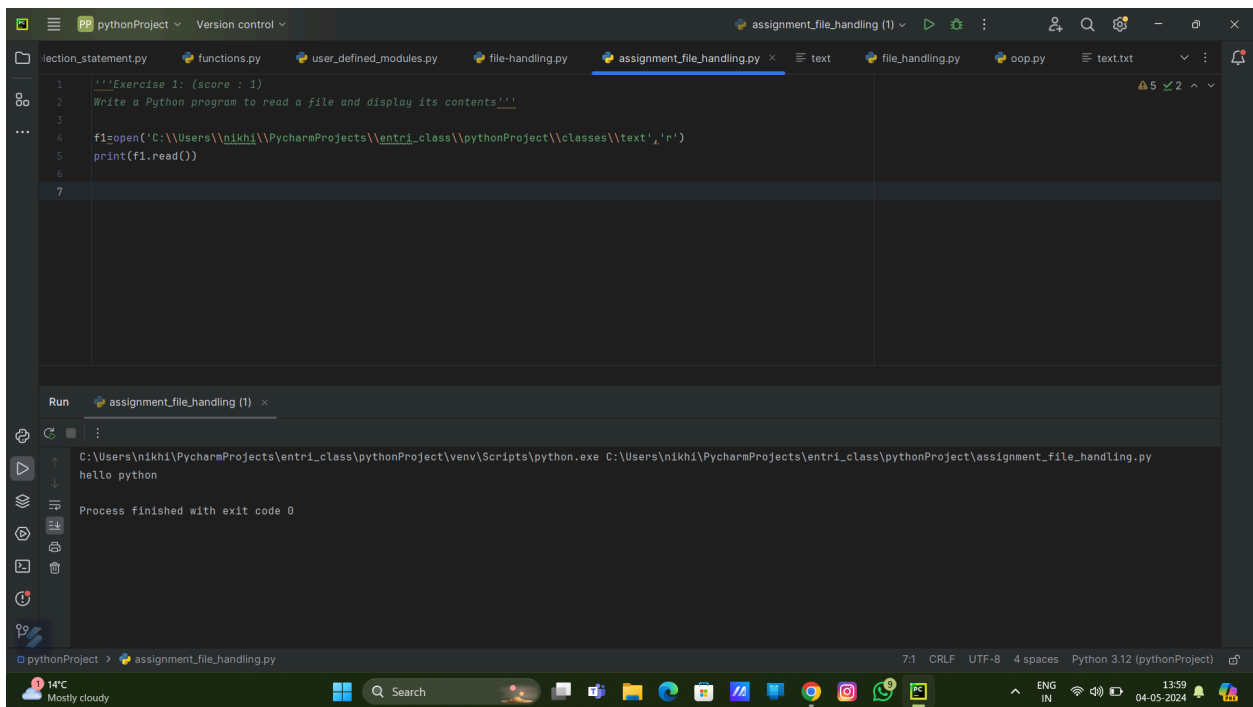


## Exercise 1: (score : 1)

Write a Python program to read a file and display its contents



The screenshot shows a code editor window with a dark theme. The file explorer on the left shows a project named 'pythonProject' with several files: 'lection\_statement.py', 'functions.py', 'user\_defined\_modules.py', 'file-handling.py', 'assignment\_file\_handling.py', 'text', 'file\_handling.py', 'oop.py', and 'text.txt'. The 'text' file is open in the editor, showing a single line of text: 'hello python'.



The screenshot shows the same code editor window, but now the 'assignment\_file\_handling.py' file is open. The code in the file is as follows:

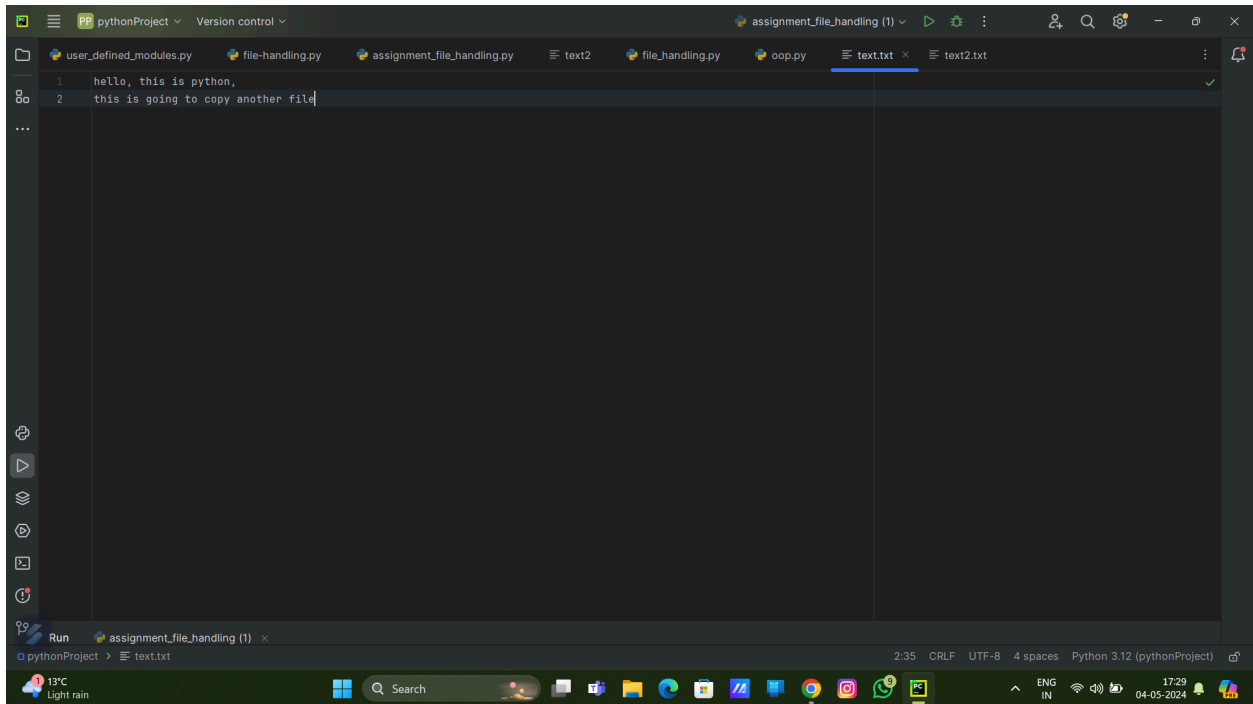
```
1 '''Exercise 1: (score : 1)
2 Write a Python program to read a file and display its contents'''
3
4 f=open('C:\\Users\\nikhi\\PycharmProjects\\entri_class\\pythonProject\\classes\\text', 'r')
5 print(f1.read())
6
7
```

Below the code editor, the 'Run' console shows the output of the program:

```
Run assignment_file_handling (1) x
C:\Users\nikhi\PycharmProjects\entri_class\pythonProject\venv\Scripts\python.exe C:\Users\nikhi\PycharmProjects\entri_class\pythonProject\assignment_file_handling.py
hello python
Process finished with exit code 0
```

## Exercise 2: (score : 1)

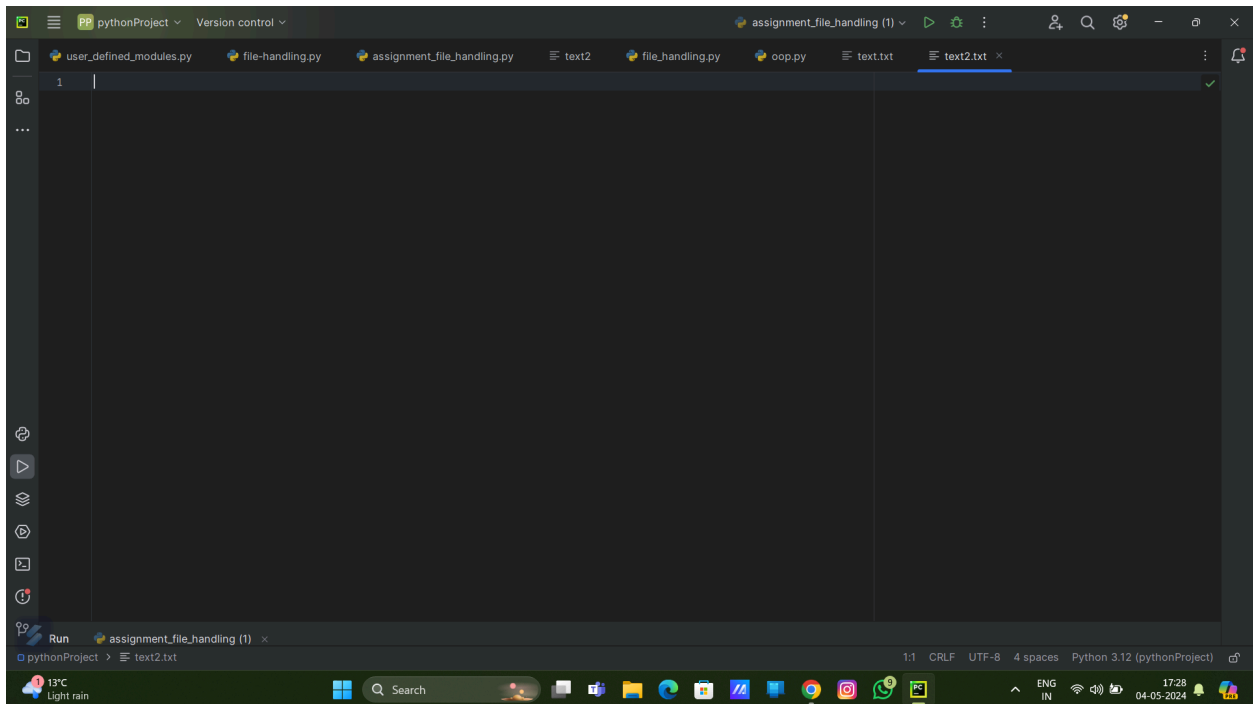
Write a Python program to copy the contents of one file to another file



The screenshot shows a code editor window with the following tabs: user\_defined\_modules.py, file-handling.py, assignment\_file\_handling.py, text2, file\_handling.py, oop.py, text.txt, and text2.txt. The active tab is text.txt, which contains the following code:

```
1 hello, this is python,  
2 this is going to copy another file
```

The bottom status bar indicates the file encoding is UTF-8, line endings are CRLF, and the Python version is 3.12.



The screenshot shows the same code editor window with the same tabs as the previous image. The active tab is now text2.txt, which is currently empty. The bottom status bar indicates the file encoding is UTF-8, line endings are CRLF, and the Python version is 3.12.

The screenshot shows the PyCharm IDE with the 'assignment\_file\_handling.py' file open. The code is as follows:

```
1 '''Exercise 2: (score : 1)
2 Write a Python program to copy the contents of one file to another file'''
3
4
5 import shutil
6 f1=input('enter source file name:')
7 f2=input('enter target file name:')
8 shutil.copy(f1,f2)
9
10 f1=open('text.txt','r')
11 f2=open('text2.txt','r')
12 print(f1.read())
13 print(f2.read())
14
15
16
17
```

The Run console shows the following output:

```
Run assignment_file_handling (1) x
C:\Users\nikhil\PycharmProjects\entri_class\pythonProject\venv\Scripts\python.exe C:\Users\nikhil\PycharmProjects\entri_class\pythonProject\assignment_file_handling.py
enter source file name:text.txt
enter target file name:text2.txt
hello, this is python,
this is going to copy another file
hello, this is python,
this is going to copy another file
Process finished with exit code 0
```

The status bar at the bottom indicates the file encoding is UTF-8, 4 spaces, and Python 3.12 (pythonProject). The system tray shows a temperature of 13°C, light rain, and the date 04-05-2024.

The screenshot shows the PyCharm IDE with the 'text2.txt' file open. The contents of the file are:

```
1 hello, this is python,
2 this is going to copy another file
```

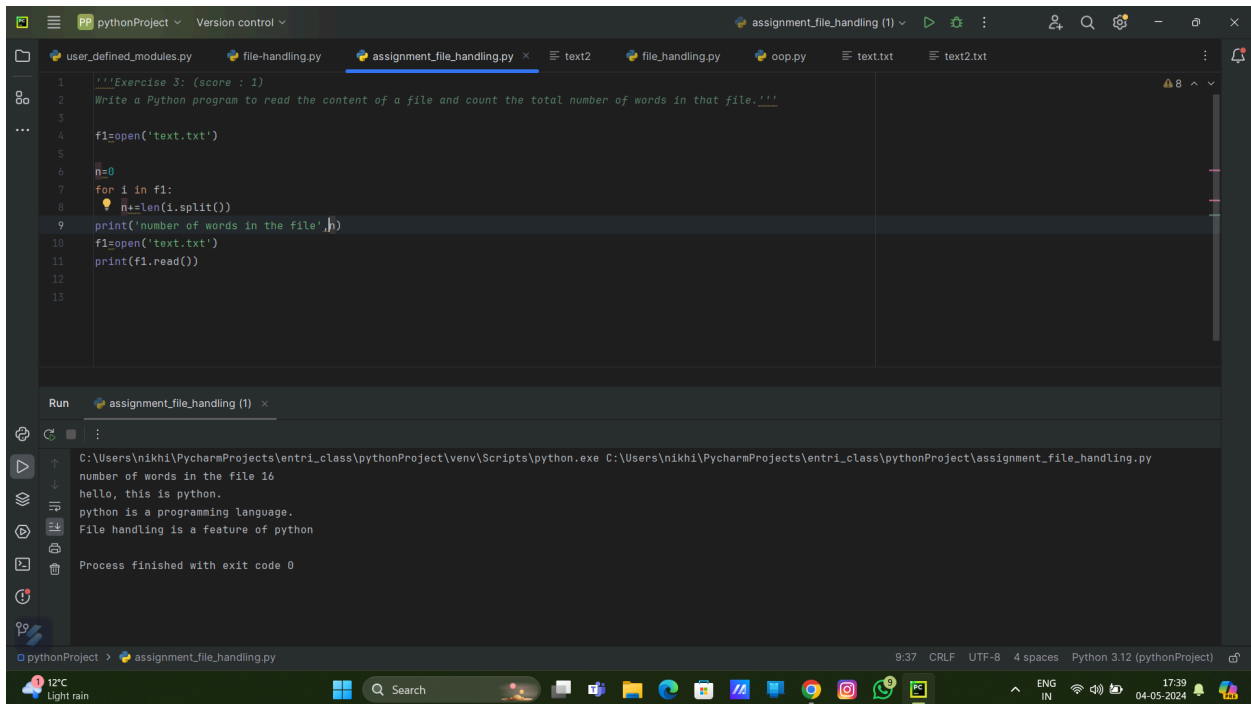
The Run console shows the following output:

```
Run assignment_file_handling (1) x
C:\Users\nikhil\PycharmProjects\entri_class\pythonProject\venv\Scripts\python.exe C:\Users\nikhil\PycharmProjects\entri_class\pythonProject\assignment_file_handling.py
enter source file name:text.txt
enter target file name:text2.txt
hello, this is python,
this is going to copy another file
hello, this is python,
this is going to copy another file
Process finished with exit code 0
```

The status bar at the bottom indicates the file encoding is UTF-8, 4 spaces, and Python 3.12 (pythonProject). The system tray shows a temperature of 13°C, light rain, and the date 04-05-2024.

### Exercise 3: (score : 1)

Write a Python program to read the content of a file and count the total number of words in that file.



The screenshot shows the PyCharm IDE with a project named 'pythonProject'. The file explorer on the left shows several files: 'user\_defined\_modules.py', 'file-handling.py', 'assignment\_file\_handling.py' (selected), 'text2', 'file\_handling.py', 'oop.py', 'text.txt', and 'text2.txt'. The main editor displays the code for 'assignment\_file\_handling.py'.

```
1 """Exercise 3: (score : 1)
2 Write a Python program to read the content of a file and count the total number of words in that file."""
3
4 f1=open('text.txt')
5
6 n=0
7 for i in f1:
8     n+=len(i.split())
9 print('number of words in the file',n)
10 f1=open('text.txt')
11 print(f1.read())
12
13
```

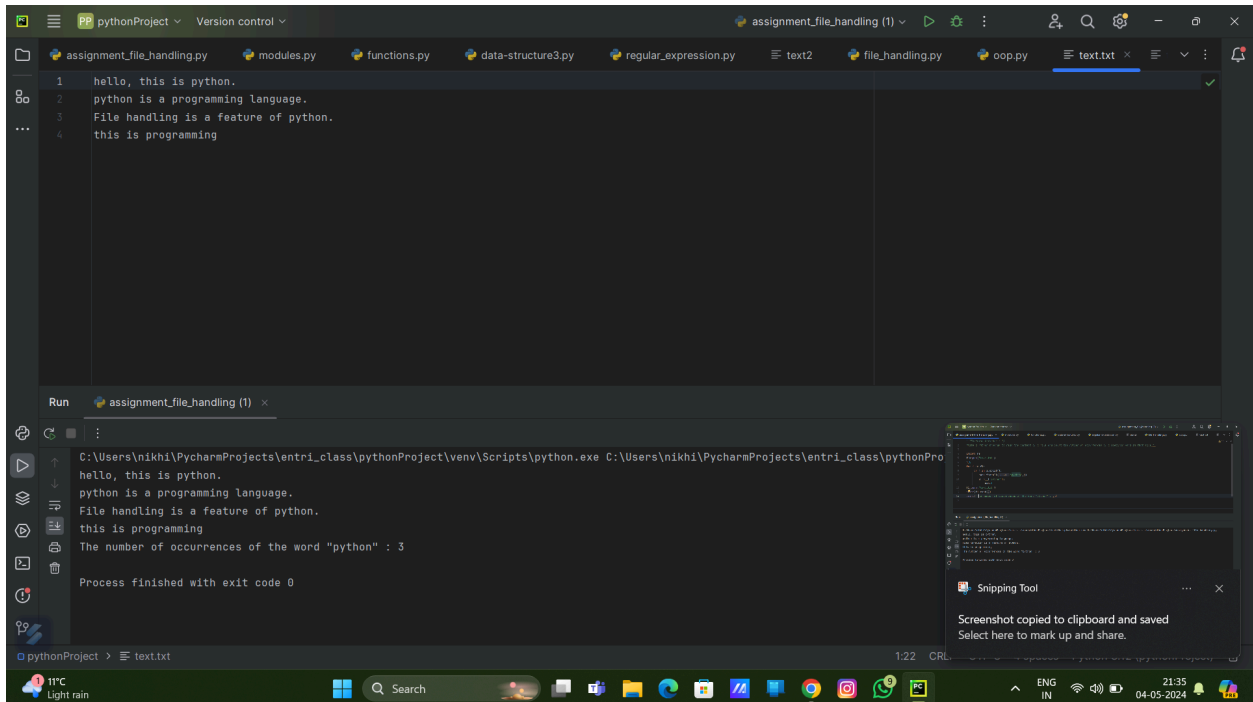
The Run console at the bottom shows the output of the program:

```
Run assignment_file_handling (1) x
C:\Users\nikhi\PycharmProjects\entri_class\pythonProject\venv\Scripts\python.exe C:\Users\nikhi\PycharmProjects\entri_class\pythonProject\assignment_file_handling.py
number of words in the file 16
hello, this is python.
python is a programming language.
File handling is a feature of python
Process finished with exit code 0
```

The status bar at the bottom indicates the file encoding is UTF-8, the line length is 9.37, and the Python version is 3.12.

#### Exercise 4:(score : 1)

Write a Python program to read the content of a file and count the number of occurrences of a specific word in that file



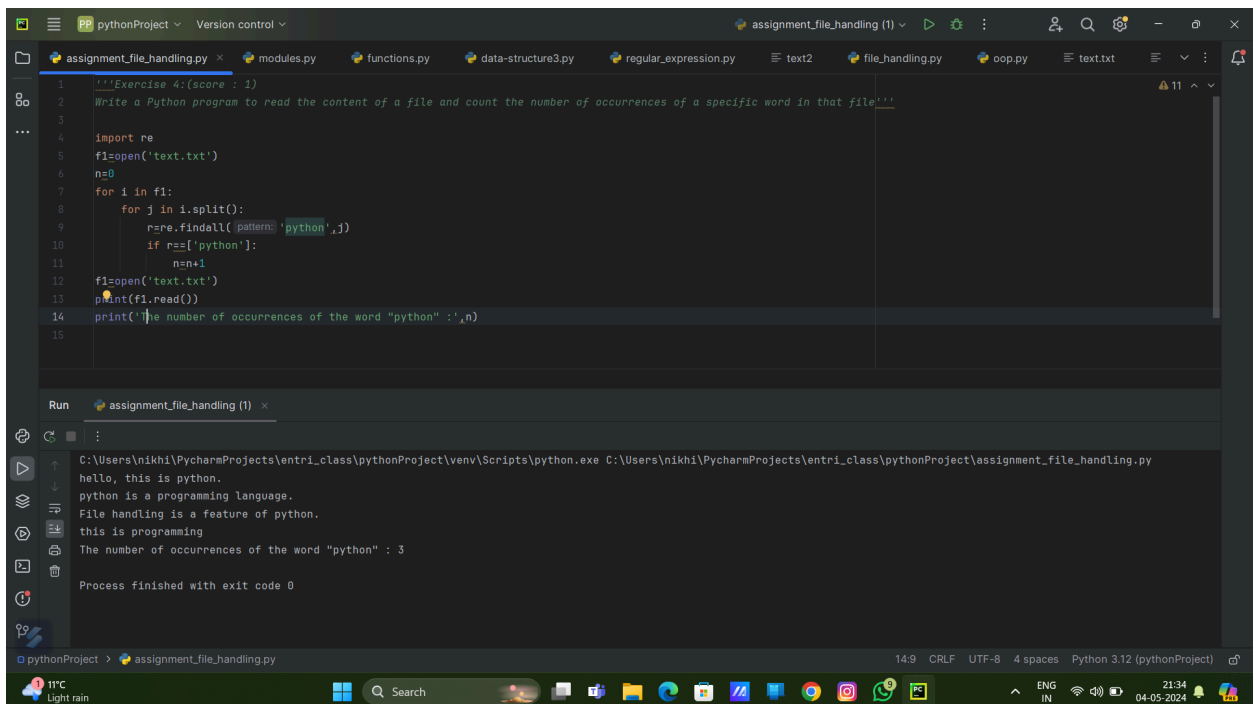
The screenshot shows the PyCharm IDE with a file named `text.txt` open. The file contains the following text:

```
1 hello, this is python.
2 python is a programming language.
3 File handling is a feature of python.
4 this is programming
```

The Run console shows the output of the program:

```
hello, this is python.
python is a programming language.
File handling is a feature of python.
this is programming
The number of occurrences of the word "python" : 3
Process finished with exit code 0
```

A Snipping Tool window is also visible in the bottom right corner, indicating a screenshot was taken.



The screenshot shows the PyCharm IDE with a file named `assignment_file_handling.py` open. The code is as follows:

```
1 """Exercise 4:(score : 1)
2 Write a Python program to read the content of a file and count the number of occurrences of a specific word in that file"""
3
4 import re
5 f1=open('text.txt')
6 n=0
7 for i in f1:
8     for j in i.split():
9         r=re.findall(pattern='python',j)
10        if r==['python']:
11            n=n+1
12        f1=open('text.txt')
13        print(f1.read())
14 print('The number of occurrences of the word "python" :',n)
15
```

The Run console shows the output of the program:

```
hello, this is python.
python is a programming language.
File handling is a feature of python.
this is programming
The number of occurrences of the word "python" : 3
Process finished with exit code 0
```

The status bar at the bottom indicates the file encoding is UTF-8 and the Python version is 3.12.

Exercise 5: (score : 1)

Write a Python program that prompts the user to input a string and converts it to an integer. Use try-except blocks to handle any exceptions that might occur

```
'''Exercise 5: (score : 1)
Write a Python program that prompts the user to input a string and converts it
to an integer.
Use try-except blocks to handle any exceptions that might occur'''

s=input(':')
try :
    w = int(s)
    print(w)
    print('converted to integer')
except :
    print('its a word')
```

C:\Users\nikhi\PycharmProjects\entri\_class\pythonProject\venv\Scripts\python.exe

C:\Users\nikhi\PycharmProjects\entri\_class\pythonProject\assignment\_file\_handling.py

:string

its a word

Process finished with exit code 0

C:\Users\nikhi\PycharmProjects\entri\_class\pythonProject\venv\Scripts\python.exe

C:\Users\nikhi\PycharmProjects\entri\_class\pythonProject\assignment\_file\_handling.py

:6

6

converted to integer

Process finished with exit code 0

Exercise 6: (score : 1)

Write a Python program that prompts the user to input a list of integers and raises an exception if any of the integers in the list are negative.

```
'''Exercise 6: (score : 1)
Write a Python program that prompts the user to input a list of integers
and raises an exception if any of the integers in the list are negative.'''

n=int(input('enter range of list: '))
l=[]
try:
    for i in range (1,n+1):
        print('enter',i,'integer',end='')
        s=int(input(':'))
        if s<0:
            raise ValueError
        l.append(s)

    print(l)
except ValueError:print('negative number is not acceptable')
```

C:\Users\nikhi\PycharmProjects\entri\_class\pythonProject\venv\Scripts\python.exe

C:\Users\nikhi\PycharmProjects\entri\_class\pythonProject\assignment\_file\_handling.py

enter range of list: 6

enter 1 integer:11

enter 2 integer:-2

negative number is not acceptable

Process finished with exit code 0

C:\Users\nikhi\PycharmProjects\entri\_class\pythonProject\venv\Scripts\python.exe

C:\Users\nikhi\PycharmProjects\entri\_class\pythonProject\assignment\_file\_handling.py

enter range of list: 5

enter 1 integer:11

enter 2 integer:45

enter 3 integer:7

enter 4 integer:8

enter 5 integer:6

[11, 45, 7, 8, 6]

Process finished with exit code 0

### Exercise 7: (score : 1)

Write a Python program that prompts the user to input a list of integers and computes the average of those integers. Use try-except blocks to handle any exceptions that might occur. Use the finally clause to print a message indicating that the program has finished running.

```
'''Exercise 7: (score : 1)
Write a Python program that prompts the user to input a list of integers and
computes the average of those integers.
Use try-except blocks to handle any exceptions that might occur.
use the finally clause to print a message indicating that the program has
finished running.'''

n=int(input('enter range of list: '))
l=[]
a=0
try:
    for i in range (1,n+1):
        print('enter',i,'integer',end='')
        s=int(input(':'))
        assert s>0
        if s==str:
            raise Exception

        a+=s
        l.append(s)
    print(l)
    average=a/n
    print('Average of input list: ',average)

except AssertionError:print('input might be an integer')
except Exception:print('input might be an integer')
finally:print('The program has finished running')
```

C:\Users\nikhi\PycharmProjects\entri\_class\pythonProject\venv\Scripts\python.exe

C:\Users\nikhi\PycharmProjects\entri\_class\pythonProject\assignment\_file\_handling.py

enter range of list: 5

enter 1 integer:4

enter 2 integer:3

enter 3 integer:5

enter 4 integer:8



enter 5 integer:7  
[4, 3, 5, 8, 7]  
Average of input list: 5.4  
The program has finished running

Process finished with exit code 0

C:\Users\nikhi\PycharmProjects\entri\_class\pythonProject\venv\Scripts\python.exe  
C:\Users\nikhi\PycharmProjects\entri\_class\pythonProject\assignment\_file\_handling.py  
enter range of list: 5  
enter 1 integer:2  
enter 2 integer:-10  
input might be an integer  
The program has finished running

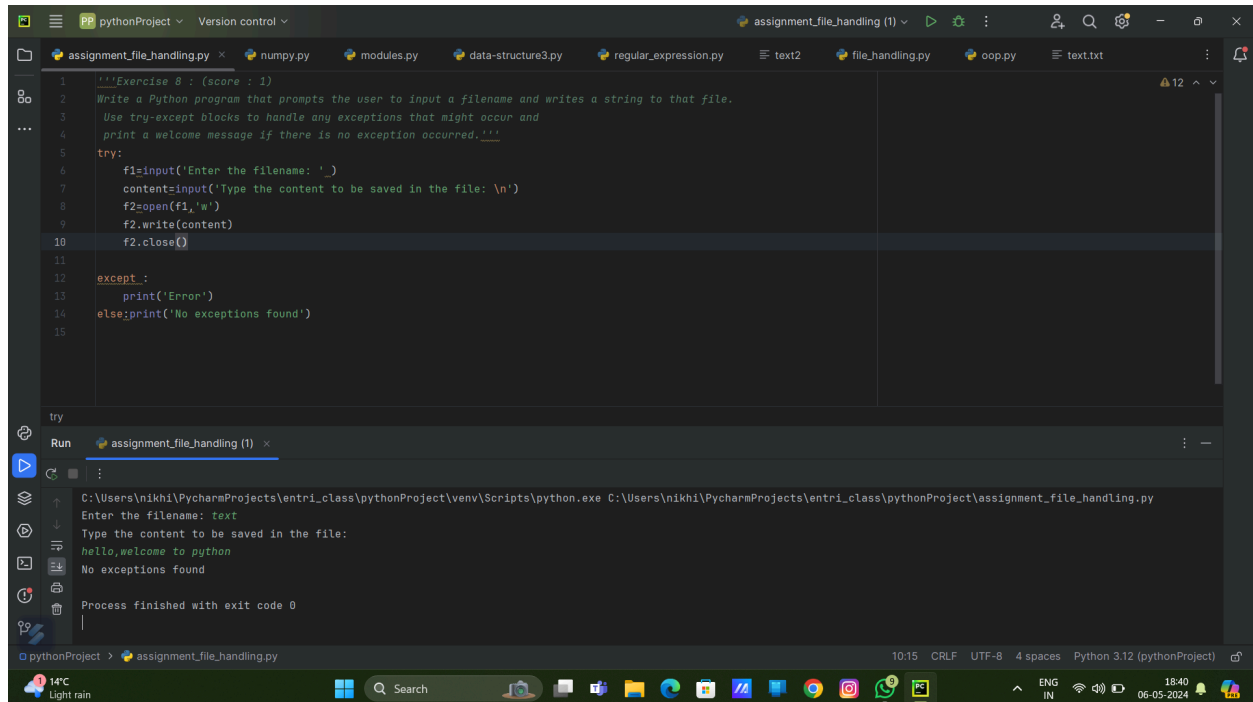
Process finished with exit code 0

C:\Users\nikhi\PycharmProjects\entri\_class\pythonProject\venv\Scripts\python.exe  
C:\Users\nikhi\PycharmProjects\entri\_class\pythonProject\assignment\_file\_handling.py  
enter range of list: 5  
enter 1 integer:10  
enter 2 integer:jhj  
input might be an integer  
The program has finished running

Process finished with exit code 0

### Exercise 8 : (score : 1)

Write a Python program that prompts the user to input a filename and writes a string to that file. Use try-except blocks to handle any exceptions that might occur and print a welcome message if there is no exception occurred.



```
1 '''Exercise 8 : (score : 1)
2 Write a Python program that prompts the user to input a filename and writes a string to that file.
3 Use try-except blocks to handle any exceptions that might occur and
4 print a welcome message if there is no exception occurred.'''
5 try:
6     f1=input('Enter the filename: ')
7     content=input('Type the content to be saved in the file: \n')
8     f2=open(f1,'w')
9     f2.write(content)
10    f2.close()
11
12 except:
13     print('Error')
14 else:print('No exceptions found')
15
```

Run assignment\_file\_handling (1) x

C:\Users\nikhil\PycharmProjects\entri\_class\pythonProject\venv\Scripts\python.exe C:\Users\nikhil\PycharmProjects\entri\_class\pythonProject\assignment\_file\_handling.py

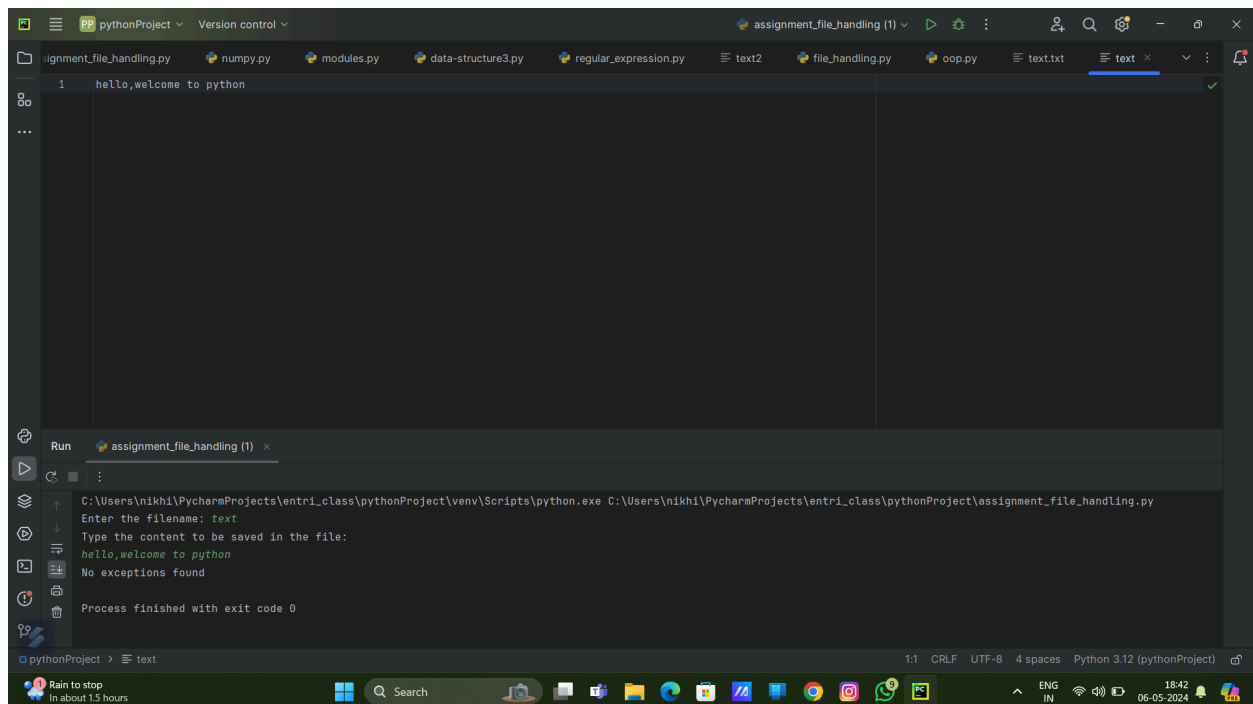
Enter the filename: text

Type the content to be saved in the file:

hello,welcome to python

No exceptions found

Process finished with exit code 0



```
1 hello,welcome to python
```

Run assignment\_file\_handling (1) x

C:\Users\nikhil\PycharmProjects\entri\_class\pythonProject\venv\Scripts\python.exe C:\Users\nikhil\PycharmProjects\entri\_class\pythonProject\assignment\_file\_handling.py

Enter the filename: text

Type the content to be saved in the file:

hello,welcome to python

No exceptions found

Process finished with exit code 0

Exercise 9 : (score : 1)

Build a program to manage a university's course catalog. You want to define a base class `Course` that has the following properties:

`course_code`: a string representing the course code (e.g., "CS101")

`course_name`: a string representing the course name (e.g., "Introduction to Computer Science")

`credit_hours`: an integer representing the credit hours for the course (e.g., 3)

You also want to define two subclasses `CoreCourse` and `ElectiveCourse`, which inherit from the `Course` class.

`CoreCourse` should have an additional property `required_for_major` which is a boolean representing whether the course is required for a particular major.

`ElectiveCourse` should have an additional property `elective_type` which is a string representing the type of elective (e.g., "general", "technical", "liberal arts").

```
'''Exercise 9 : (score : 1)
Build a program to manage a university's course catalog. You want to define a
base class Course that has the following properties:
course_code: a string representing the course code (e.g., "CS101")
course_name: a string representing the course name (e.g., "Introduction to
Computer Science")
credit_hours: an integer representing the credit hours for the course (e.g.,
3)
You also want to define two subclasses CoreCourse and ElectiveCourse, which
inherit from the Course class.
CoreCourse should have an additional property required_for_major which is a
boolean representing whether the course is required for a particular major.
ElectiveCourse should have an additional property elective_type which is a
string representing the type of elective (e.g., "general", "technical",
"liberal arts").'''

class Course:
    def course_details(self, course_code, course_name, credit_hours):
        self.course_code=course_code
        self.course_name=course_name
        self.credit_hours=credit_hours
        print('course code:', course_code)
        print('course_name:', course_name)
        print('credit hours:', credit_hours)

class CoreCourse(Course):
    def __init__(self, course_code, course_name, credit_hours):
        super().course_details(course_code, course_name, credit_hours)
    def required(self, r):
        if r==1:
            print('major course required')
        else: print('major course is not required')

class ElectiveCourse(Course):
```

```

def __init__(self, course_code, course_name, credit_hours, elective_type):
    super().course_details(course_code, course_name, credit_hours)
    self.elective_type=elective_type
    print('elective subject is', elective_type)
code=input('enetr course code:')
course=input('enetr course name')
credit=input('enter credit hours:')
try:
    required=input('enter whether the course is required or not?')
    c=CoreCourse(course_code, course_name, credit)
    if required.lower()=='yes':
        c.required(1)
    elif required.lower()=='no':
        c.required(0)
    else:print('enter a valid input')
    elective_type=input('enter the elective subject: ')
    electivecourse=ElectiveCourse(course_code, course_name, credit, elective_type)
except Exception as error:print('some error occured please try again',error)

```

C:\Users\nikhi\PycharmProjects\entri\_class\pythonProject\venv\Scripts\python.exe

C:\Users\nikhi\PycharmProjects\entri\_class\pythonProject\assignment\_file\_handling.py

enetr course code:CS101

enetr course nameINTRODUCTION TO COMPUTER SCIENCE

enter credit hours:3

enter whether the course is required or not?YES

course code: CS101

course\_name: INTRODUCTION TO COMPUTER SCIENCE

credit hours: 3

major course required

enter the elective subject: GENERAL

course code: CS101

course\_name: INTRODUCTION TO COMPUTER SCIENCE

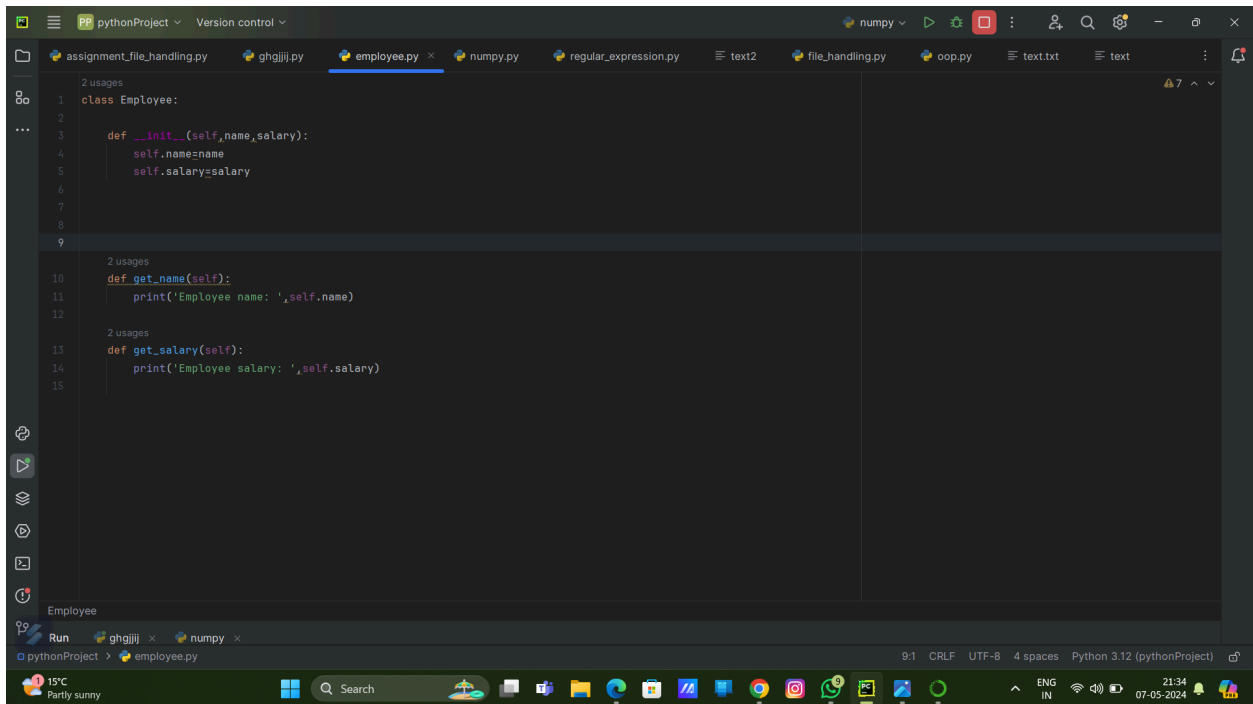
credit hours: 3

elective subject is GENERAL

Process finished with exit code 0

Exercise 10: (score : 1)

Create a Python module named `employee` that contains a class `Employee` with attributes `name`, `salary` and methods `get_name()` and `get_salary()`. Write a program to use this module to create an object of the `Employee` class and display its name and salary.



```
1 class Employee:
2
3     def __init__(self, name, salary):
4         self.name = name
5         self.salary = salary
6
7
8
9
10 def get_name(self):
11     print('Employee name: ', self.name)
12
13 def get_salary(self):
14     print('Employee salary: ', self.salary)
15
```

```
'''Exercise 10: (score : 1)
Create a Python module named employee that contains a class Employee with
attributes name, salary and methods get_name() and get_salary().
Write a program to use this module to create an object of the Employee class
and display its name and salary.'''
```

```
import employee as e
E1=e.Employee('Akhil',40000)
E2=e.Employee('Arun',25000)
print('Employee details')
print(E1.get_name(),'\t',E1.get_salary())
print(E2.get_name(),'\t',E2.get_salary())
```

C:\Users\nikhi\PycharmProjects\entri\_class\pythonProject\venv\Scripts\python.exe

C:\Users\nikhi\PycharmProjects\entri\_class\pythonProject\classes\numpy.py

Employee details

Employee name: Akhil

Employee salary: 40000

None None

Employee name: Arun

Employee salary: 25000

None None

Process finished with exit code 0