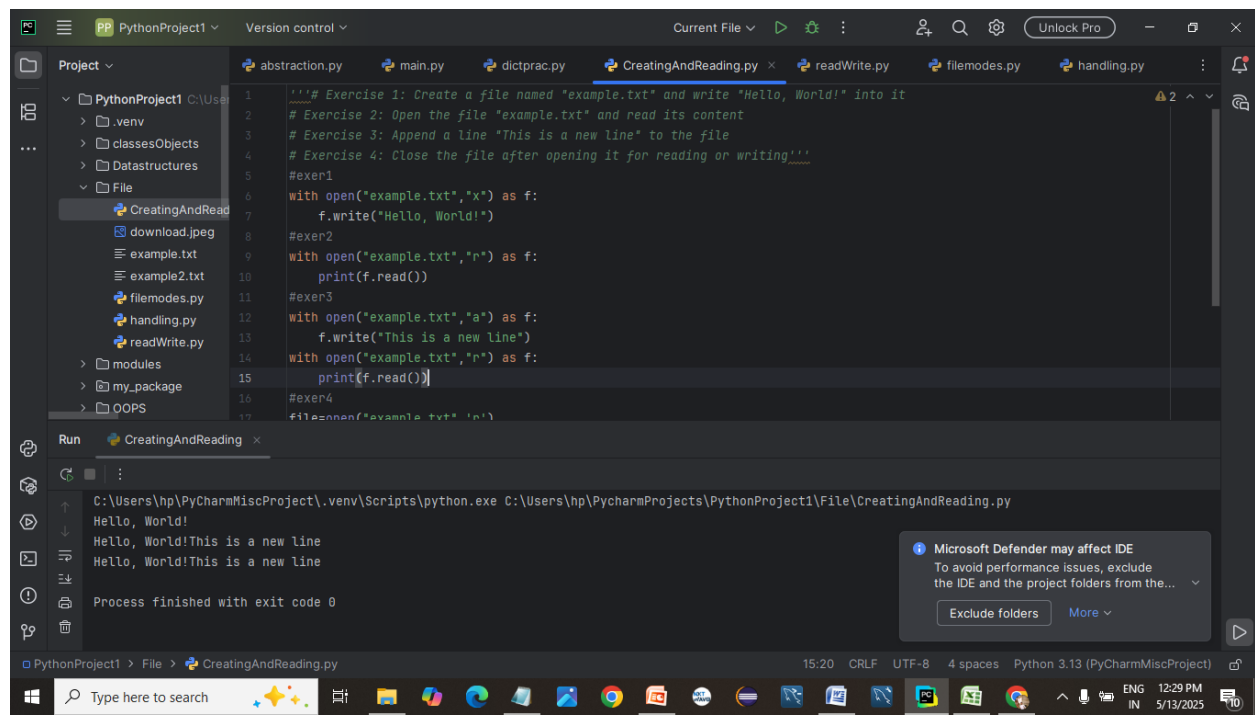


# Hands-on File Handling

```
'''# Exercise 1: Create a file named "example.txt" and write "Hello, World!"
into it
# Exercise 2: Open the file "example.txt" and read its content
# Exercise 3: Append a line "This is a new line" to the file
# Exercise 4: Close the file after opening it for reading or writing'''
#exer1
with open("example.txt","x") as f:
    f.write("Hello, World!")
#exer2
with open("example.txt","r") as f:
    print(f.read())
#exer3
with open("example.txt","a") as f:
    f.write("This is a new line")
with open("example.txt","r") as f:
    print(f.read())
#exer4
file=open("example.txt",'r')
content=file.read()
print(content)
file.close()
```

## Output )



The screenshot displays the PyCharm IDE interface. The top toolbar includes buttons for running and debugging. The 'Project' sidebar on the left shows the file structure, with 'example.txt' and 'example2.txt' visible under the 'File' folder. The main editor window shows the code from the previous block, with line numbers 1 through 17. The 'Run' console at the bottom shows the output of the script: 'Hello, World!', 'Hello, World!This is a new line', and 'Hello, World!This is a new line'. A notification from Microsoft Defender is visible in the bottom right corner.

```
Run C:\Users\hp\PyCharmMiscProject\.venv\Scripts\python.exe C:\Users\hp\PyCharmProjects\PythonProject1\File\CreatingAndReading.py
Hello, World!
Hello, World!This is a new line
Hello, World!This is a new line
Process finished with exit code 0
```

```

# Exercise 5: Open a file in 'w' mode and write a list of strings to it
# Exercise 6: Open a file in 'r' mode and read its content line by line
# Exercise 7: Use 'rb' mode to read binary data from a file

#exer5
with open("example.txt","w") as f:
    f.write("This is first line\n")
    f.write("This is second line\n")
    f.write("This is third line\n")
    f.write("This is fourth line\n")
    f.write("This is fifth line\n")
    f.write("This is sixth line\n")
    f.write("This is seventh line\n")

#exer6
with open("example.txt","r") as f:
    for i in f:
        print(i,end=" ")

#exer7
with open("download.jpeg","rb") as f:
    print(f.read())

```

## Output

```

C:\Users\hp\PyCharmMiscProject\.venv\Scripts\python.exe C:\Users\hp\PyCharmProjects\PythonProject1\File\filemodes.py
This is first line
This is second line
This is third line
This is fourth line
This is fifth line
This is sixth line
This is seventh line
b'\xff\xd8\xff\xe0\x00\x10JFIF\x00\x01\x00\x00\x00\x01\x00\x00\xff\xdb\x00\x84\x00t\x06\x07\x12\x12\x15\x10\x12\x10\x16\x16\x15\x17\x18'
Process finished with exit code 0

```

```
'''Exercise 8: Try to open a non-existent file in 'r' mode
# ➤ Catch the FileNotFoundError and print a custom error message'''

try:
    with open("example.txt","r") as f:
        print(f.read())
    with open("xyz.txt","r") as f:
        print(f.read())
except FileNotFoundError:
    print("File is not available in your directory!!!")
```

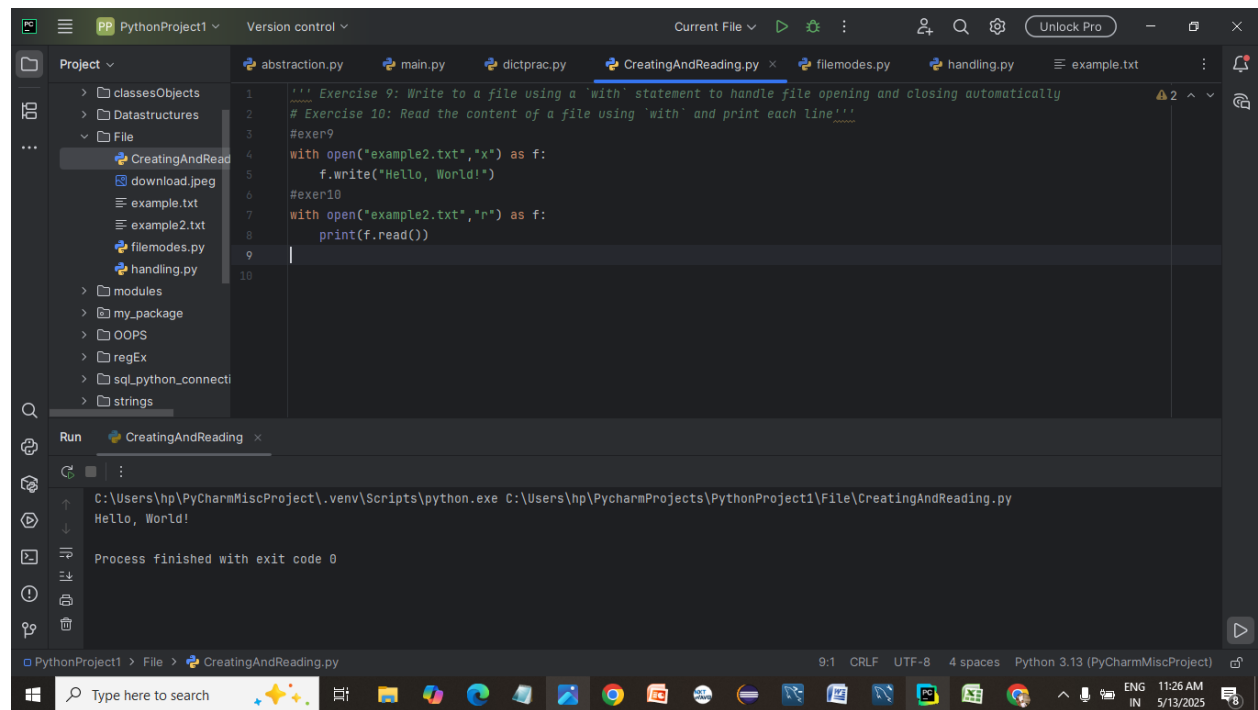
## Output )

The screenshot shows the PyCharm IDE interface. The top toolbar includes icons for file operations, search, and running code. The 'Project' sidebar on the left shows a file tree with folders like 'classesObjects', 'Datastructures', and 'File'. The 'File' folder is expanded, showing files like 'CreatingAndRead.py', 'download.jpeg', 'example.txt', 'filemodes.py', and 'handling.py'. The 'handling.py' file is open in the editor, displaying the code from the previous block. The 'Run' console at the bottom shows the execution output: 'This is first line' through 'This is seventh line', followed by the custom error message 'File is not available in your directory!!!' and 'Process finished with exit code 0'. The status bar at the bottom indicates the file encoding (UTF-8), indentation (4 spaces), and the Python version (3.13).

```
PythonProject1 > File > handling.py
11:1 CRLF UTF-8 4 spaces Python 3.13 (PyCharmMiscProject)
```

```
''' Exercise 9: Write to a file using a `with` statement to handle file
opening and closing automatically
# Exercise 10: Read the content of a file using `with` and print each line'''
#exer9
with open("example2.txt","x") as f:
    f.write("Hello, World!")
#exer10
with open("example2.txt","r") as f:
    print(f.read())
```

## Output )



```

list1=["python strings\n","python list\n","python files\n"]
with open("stringslist.txt",'w+') as file:
    for each_line in list1:
        file.write(each_line)

    file.seek(0)
    for line in file:
        print(line)
#exer12
with open("stringslist.txt",'r') as file:
    count=0
    for line in file:
        if "python" in line:
            count+=1
    print(count)
# exercise 13
import csv
students = [
    ["abhiijith", "A"],["sai", "C"],["vedantham", "B"]
]
with open("students.csv", 'w', newline='') as file:
    writer = csv.writer(file)
    writer.writerows(students)
with open("students.csv", 'r') as file:
    reader = csv.reader(file)
    for row in reader:
        print(row)

```

## Output)

The screenshot shows the PyCharm IDE interface. The top toolbar includes buttons for running and debugging. The left sidebar shows the project structure with files like 'stringslist.txt' and 'students.csv'. The main editor displays the code from the previous block. The bottom pane shows the output of the script, which matches the expected output from the code: 'python strings', 'python list', 'python files', a count of 3, and the CSV data rows. A notification from Microsoft Defender is visible in the bottom right corner.

```

C:\Users\hp\PyCharmMiscProject\.venv\Scripts\python.exe C:\Users\hp\PyCharmProjects\PythonProject1\File\read_and_write.py
python strings
python list
python files
3
['abhiijith', 'A']
['sai', 'C']
['vedantham', 'B']
Process finished with exit code 0

```

```

'''Exercise 14: Rename a file "old_name.txt" to "new_name.txt"
# Exercise 15: Delete a file "example.txt" after confirming it exists'''
#exercise 14
import os
old_name="students.csv"
new_name="changed.csv"
if os.path.exists(old_name):
    os.rename(old_name,new_name)
    print(f"renamed {old_name} to {new_name}")
else:
    print(f"file {old_name} does not exists")
#exercise 15
file_delete="rough.txt"
if os.path.exists(file_delete):
    os.remove(file_delete)
    print(f" file {file_delete} is deleted")
else:
    print(f"file {file_delete} does not exists")

```

## Output )

The screenshot shows the PyCharm IDE interface. The top toolbar includes buttons for running and debugging. The left sidebar shows a project tree with files like 'changed.csv', 'example.txt', and 'rough.txt'. The main editor window displays the Python code from the previous block. The bottom pane shows the 'Run' output, which contains the following text:

```

C:\Users\hp\PyCharmMiscProject\venv\Scripts\python.exe C:\Users\hp\PyCharmProjects\PythonProject1\File\rename_and_del.py
renamed students.csv to changed.csv
file rough.txt does not exists
Process finished with exit code 0

```

A notification from Microsoft Defender is visible in the bottom right corner, stating: "Microsoft Defender may affect IDE. To avoid performance issues, exclude the IDE and the project folders from the...".

```
'''# Exercise 16: Get the absolute path of a file
# Exercise 17: Check if a file exists before attempting to read it'''
#exercise 16
import os
file_name="example.txt"
absolute_path=os.path.abspath(file_name)
print("absoulte path is :",absolute_path)
#exercise 17
file_name = "example.txt"
if os.path.exists(file_name):
    with open(file_name, "r") as file:
        content = file.read()
        print("File content:\n", content)
else:
    print(f"File '{file_name}' does not exist.")
```

**Output )**

The screenshot shows the PyCharm IDE interface. The top toolbar includes buttons for running and debugging. The left sidebar shows the project structure with files like 'absolute\_Path.py', 'changed.csv', 'download.jpeg', 'example.txt', 'example2.txt', 'filemodes.py', 'handling.py', 'read\_and\_write.p', 'readWrite.py', 'rename\_and\_del.i', and 'stringslist.txt'. The main editor window displays the Python code from the previous block. The 'Run' console at the bottom shows the output of the script: 'absoulte path is : C:\Users\hp\PycharmProjects\PythonProject1\File\example.txt', 'File content:', 'python strings', 'python list', and 'python files'. Below the console, it states 'Process finished with exit code 0'. A notification from Microsoft Defender is visible in the bottom right corner, stating 'Microsoft Defender may affect IDE' and 'To avoid performance issues, exclude the IDE and the project folders from the...'. The taskbar at the bottom shows various application icons and the system clock indicating 1:01 PM on 5/13/2025.