Creat new file

```
# Creating a new file in write mode
with open("new_file.txt", "w") as file:
    file.write("This is a new file created by Python!\n")
```

```
# Creating a new file only if it doesn't exist
with open("new_file.txt", "x") as file:
    file.write("This is a new file created by Python!\n")


# NOTE:
#       This mode is used to create a new file, but if the file already exists, it will raise a FileExistsError.
#       So, if "new_file.txt" does not exist, it will be created, and you'll be able to write to it.
```

```
---------------------------------------------------------------------------
FileExistsError                           Traceback (most recent call last)
<ipython-input-32-d480b1064b70> in <cell line: 2>()
      1 # Creating a new file only if it doesn't exist
----> 2 with open("new_file.txt", "x") as file:
      3     file.write("This is a new file created by Python!\n")
      4
      5

FileExistsError: [Errno 17] File exists: 'new_file.txt'
```

Next steps: Explain error

Open exist file

```
# Opening a file in read mode
file = open("new_file.txt", "r")

# Opening a file in write mode
file = open("new_file.txt", "w")

# Opening a file in append mode
file = open("new_file.txt", "a")


# NOTE:
#       Each call to open() will close the file opened by the previous call and open it again with the new mode.
#       In this case, the file will be open on mode 'a'.
```

For multiple purposes, you can use:

- "r+" for read/write mode
- "a+" for append/read mode.

```
# Opening a file in read/write mode
file = open("new_file.txt", "r+")

# # Opening a file in append/read mode
# file = open("new_file.txt", "a+")
```

Reading from an 'open' File

```
# Reading the entire file
content = file.read()

# Reading a single line
line = file.readline()

# Reading all lines into a list
lines = file.readlines()
```

```
print(content)
```

```
This is a new file created by Python!
```

Wright to exist file

```
file.write("Hello, World!\n")
```

Close file

```
file.close()
```

'With' block

```
with open("new_file.txt", "r") as file:
    content = file.read()
    print(content)     # Do something with the content

# File is automatically closed when exiting the 'with' block
```

```
 This is a new file created by Python!
```

Examples

```
# Example 1

with open("Example.txt", "w") as file:
    file.write("Hello World!\n")

file = open("Example.txt", "r")
content = file.read()
print(content)

file.close()
```

```
 Hello World!
```

```
# Example 2:

file = open("Example.txt", "a")
file.write("Adding information\n")
# file.close()

file = open("Example.txt", "r")
content = file.read()
print(content)

file.close()
```

```
 Hello World!
 Adding information
```

```
# Example 3

file = open("Example.txt", "w")
file.write("Run Over information\n")
# file.close()

file = open("Example.txt", "r")
content = file.read()
print(content)

file.close()
```

```
 Run Over information
```

```

```