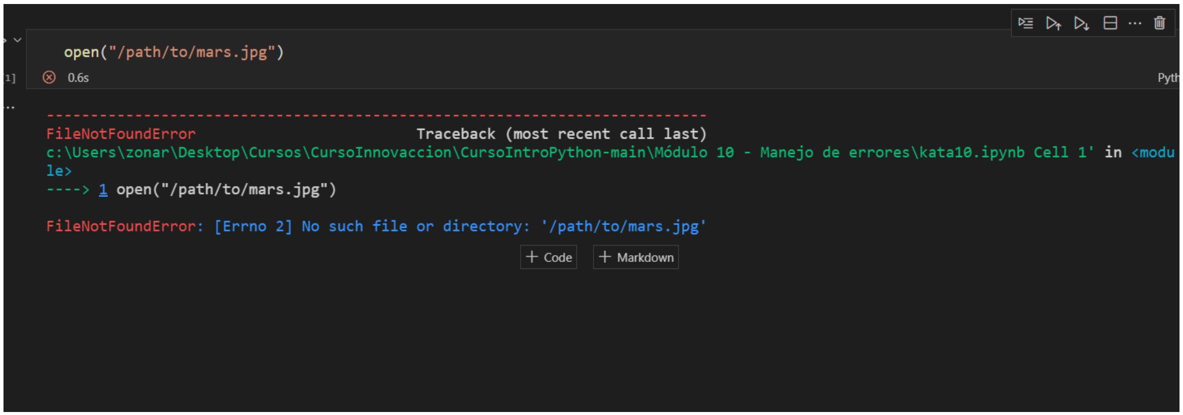
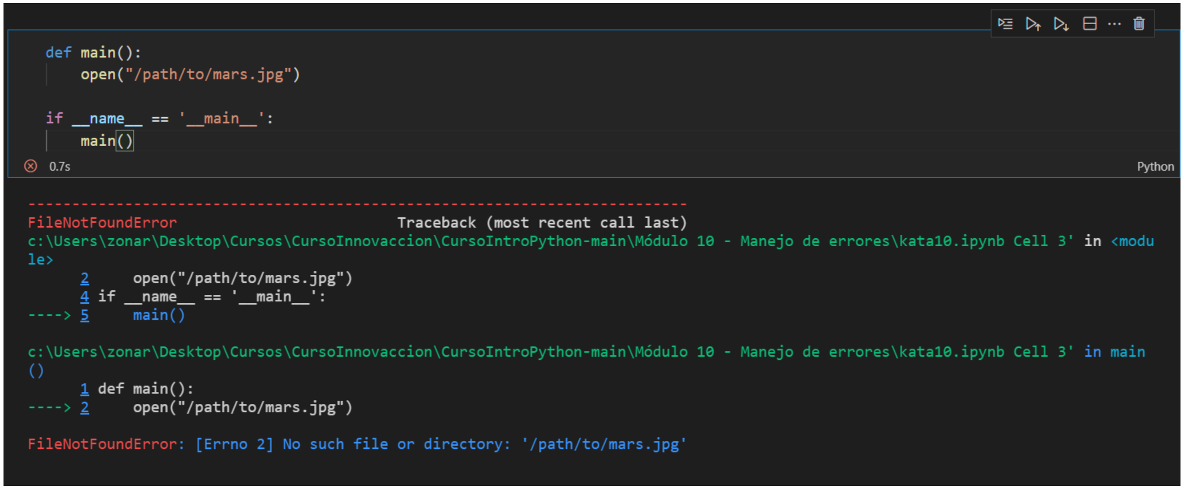


```
open("/path/to/mars.jpg")
```

```
---------------------------------------------------------------------------
FileNotFoundError                         Traceback (most recent call last)
c:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroPython-main\Módulo 10 - Manejo de errores\kata10.ipynb Cell 1' in <modu
le>
----> 1 open("/path/to/mars.jpg")

FileNotFoundError: [Errno 2] No such file or directory: '/path/to/mars.jpg'
```



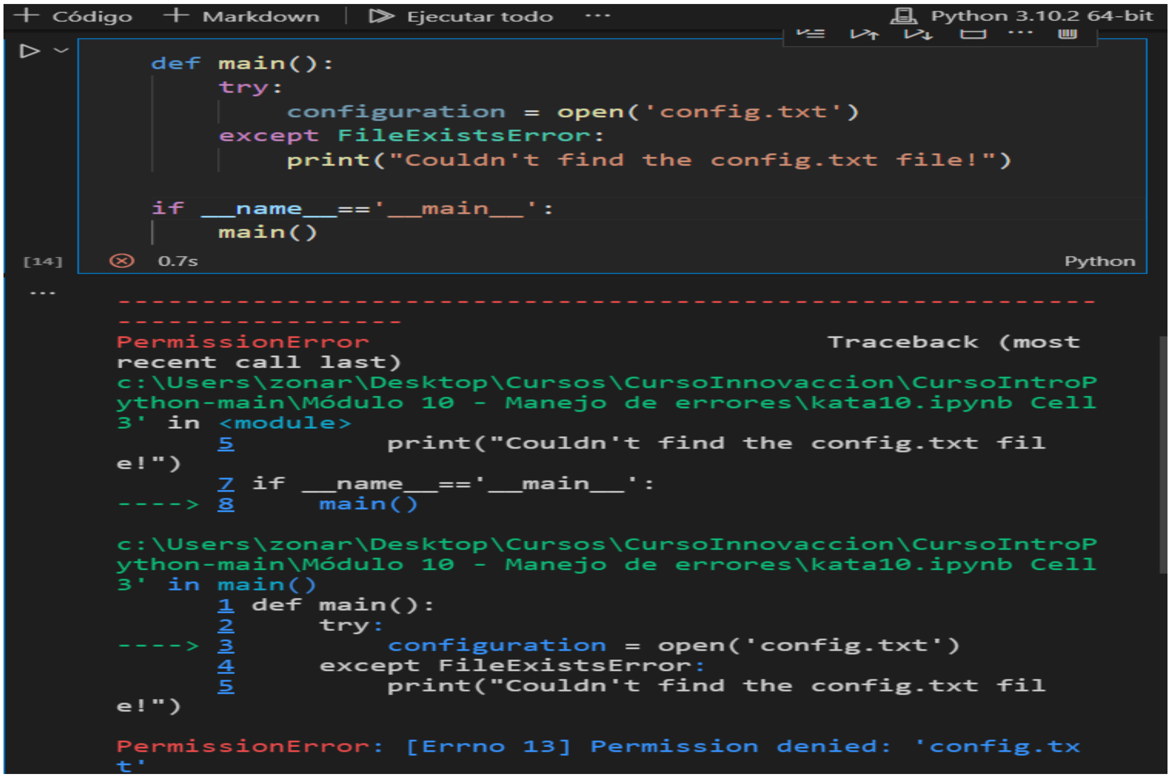
```
def main():
    open("/path/to/mars.jpg")

if __name__ == '__main__':
    main()
```

```
---------------------------------------------------------------------------
FileNotFoundError                         Traceback (most recent call last)
c:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroPython-main\Módulo 10 - Manejo de errores\kata10.ipynb Cell 3' in <modu
le>
      2     open("/path/to/mars.jpg")
      4 if __name__ == '__main__':
----> 5     main()

c:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroPython-main\Módulo 10 - Manejo de errores\kata10.ipynb Cell 3' in main
()
      1 def main():
----> 2     open("/path/to/mars.jpg")

FileNotFoundError: [Errno 2] No such file or directory: '/path/to/mars.jpg'
```



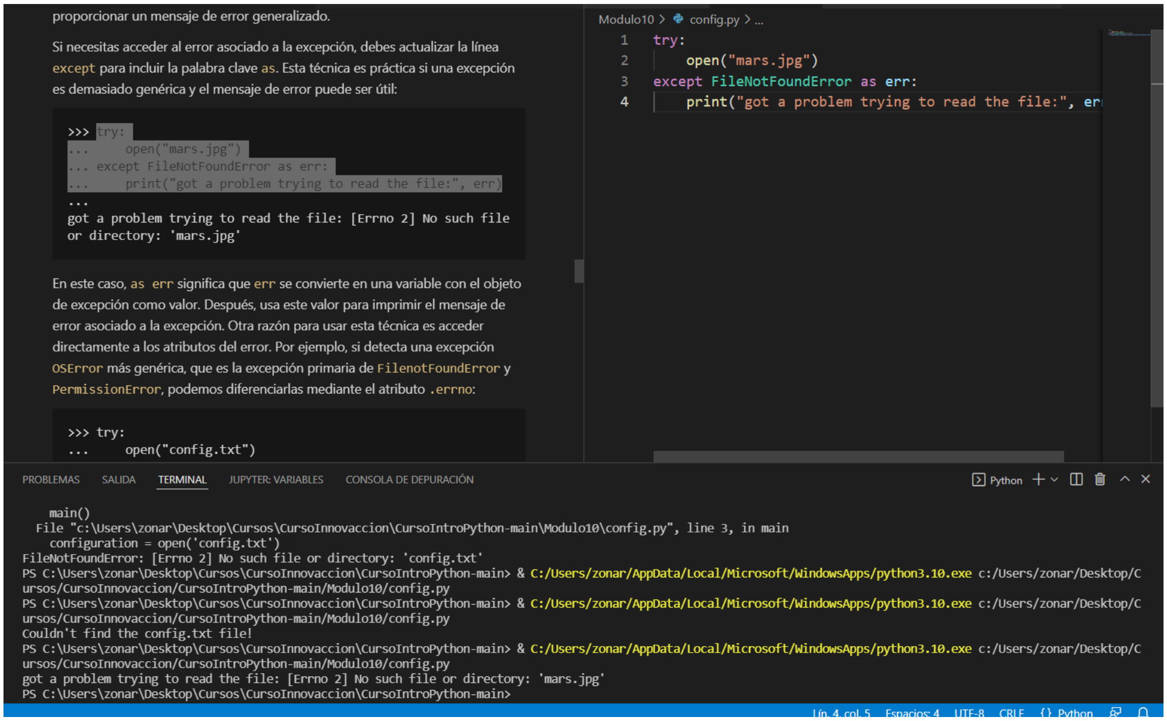
```
def main():
    try:
        configuration = open('config.txt')
    except FileExistsError:
        print("Couldn't find the config.txt file!")

if __name__=='__main__':
    main()
```

```
---------------------------------------------------------------------------
PermissionError                           Traceback (most
recent call last)
c:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroP
ython-main\Módulo 10 - Manejo de errores\kata10.ipynb Cell
3' in <module>
      5         print("Couldn't find the config.txt fil
e!")
      7 if __name__=='__main__':
----> 8     main()

c:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroP
ython-main\Módulo 10 - Manejo de errores\kata10.ipynb Cell
3' in main()
      1 def main():
      2     try:
----> 3         configuration = open('config.txt')
      4     except FileExistsError:
      5         print("Couldn't find the config.txt fil
e!")

PermissionError: [Errno 13] Permission denied: 'config.tx
t'
```



proporcionar un mensaje de error generalizado.

Si necesitas acceder al error asociado a la excepción, debes actualizar la línea `except` para incluir la palabra clave `as`. Esta técnica es práctica si una excepción es demasiado genérica y el mensaje de error puede ser útil:

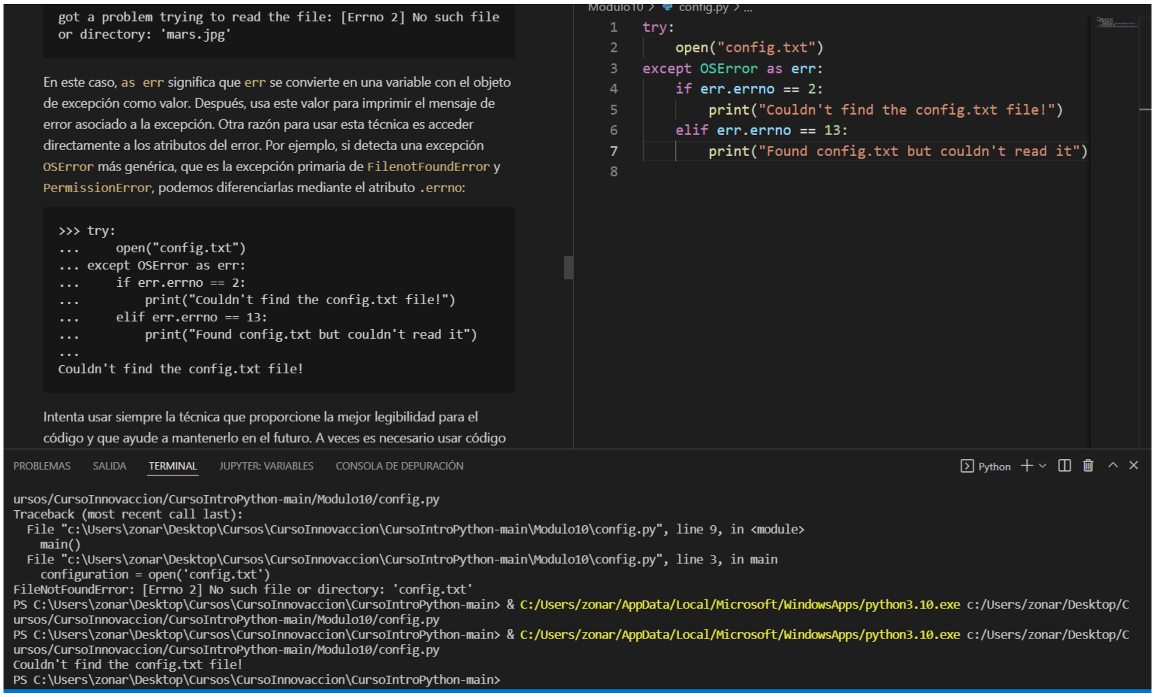
```
>>> try:
...     open("mars.jpg")
... except FileNotFoundError as err:
...     print("got a problem trying to read the file:", err)
...
got a problem trying to read the file: [Errno 2] No such file
or directory: 'mars.jpg'
```

En este caso, `as err` significa que `err` se convierte en una variable con el objeto de excepción como valor. Después, usa este valor para imprimir el mensaje de error asociado a la excepción. Otra razón para usar esta técnica es acceder directamente a los atributos del error. Por ejemplo, si detecta una excepción `OSError` más genérica, que es la excepción primaria de `FilenotFoundError` y `PermissionError`, podemos diferenciarlas mediante el atributo `.errno`:

```
>>> try:
...     open("config.txt")
```

```
try:
    open("mars.jpg")
except FileNotFoundError as err:
    print("got a problem trying to read the file:", er
```

```
    main()
  File "c:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroPython-main\Modulo10\config.py", line 3, in main
    configuration = open('config.txt')
FileNotFoundError: [Errno 2] No such file or directory: 'config.txt'
PS C:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroPython-main> & C:/Users/zonar/AppData/Local/Microsoft/WindowsApps/python3.10.exe c:/Users/zonar/Desktop/C
ursos/CursoInnovaccion/CursoIntroPython-main/Modulo10/config.py
PS C:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroPython-main> & C:/Users/zonar/AppData/Local/Microsoft/WindowsApps/python3.10.exe c:/Users/zonar/Desktop/C
ursos/CursoInnovaccion/CursoIntroPython-main/Modulo10/config.py
Couldn't find the config.txt file!
PS C:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroPython-main> & C:/Users/zonar/AppData/Local/Microsoft/WindowsApps/python3.10.exe c:/Users/zonar/Desktop/C
ursos/CursoInnovaccion/CursoIntroPython-main/Modulo10/config.py
got a problem trying to read the file: [Errno 2] No such file or directory: 'mars.jpg'
PS C:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroPython-main>
```



```
got a problem trying to read the file: [Errno 2] No such file
or directory: 'mars.jpg'
```

En este caso, `as err` significa que `err` se convierte en una variable con el objeto de excepción como valor. Después, usa este valor para imprimir el mensaje de error asociado a la excepción. Otra razón para usar esta técnica es acceder directamente a los atributos del error. Por ejemplo, si detecta una excepción `OSError` más genérica, que es la excepción primaria de `FilenotFoundError` y `PermissionError`, podemos diferenciarlas mediante el atributo `.errno`:

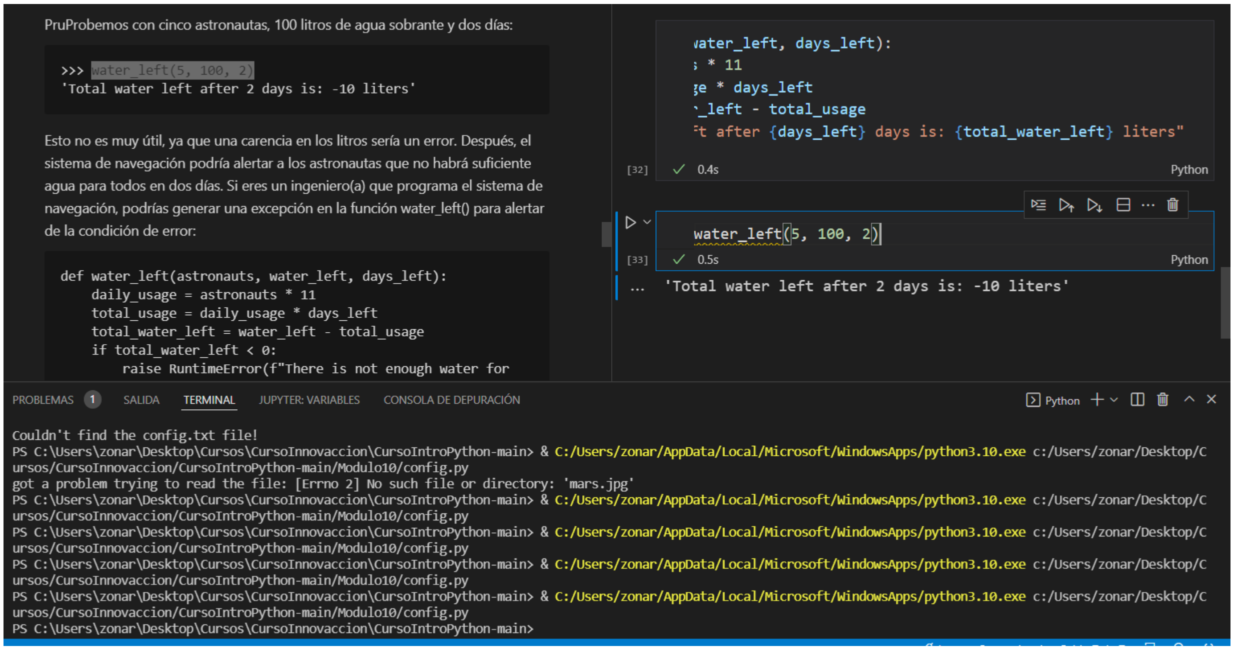
```
>>> try:
...     open("config.txt")
... except OSError as err:
...     if err.errno == 2:
...         print("Couldn't find the config.txt file!")
...     elif err.errno == 13:
...         print("Found config.txt but couldn't read it")
...
Couldn't find the config.txt file!
```

Intenta usar siempre la técnica que proporcione la mejor legibilidad para el código y que ayude a mantenerlo en el futuro. A veces es necesario usar código

```
try:
    open("config.txt")
except OSError as err:
    if err.errno == 2:
        print("Couldn't find the config.txt file!")
    elif err.errno == 13:
        print("Found config.txt but couldn't read it")

```

```
ursos/CursoInnovaccion/CursoIntroPython-main/Modulo10/config.py
Traceback (most recent call last):
  File "c:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroPython-main\Modulo10\config.py", line 9, in <module>
    main()
  File "c:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroPython-main\Modulo10\config.py", line 3, in main
    configuration = open('config.txt')
FileNotFoundError: [Errno 2] No such file or directory: 'config.txt'
PS C:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroPython-main> & C:/Users/zonar/AppData/Local/Microsoft/WindowsApps/python3.10.exe c:/Users/zonar/Desktop/C
ursos/CursoInnovaccion/CursoIntroPython-main/Modulo10/config.py
PS C:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroPython-main> & C:/Users/zonar/AppData/Local/Microsoft/WindowsApps/python3.10.exe c:/Users/zonar/Desktop/C
ursos/CursoInnovaccion/CursoIntroPython-main/Modulo10/config.py
Couldn't find the config.txt file!
PS C:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroPython-main>
```



PruProbemos con cinco astronautas, 100 litros de agua sobrante y dos días:

```
>>> water_left(5, 100, 2)
'Total water left after 2 days is: -10 liters'
```

Esto no es muy útil, ya que una carencia en los litros sería un error. Después, el sistema de navegación podría alertar a los astronautas que no habrá suficiente agua para todos en dos días. Si eres un ingeniero(a) que programa el sistema de navegación, podrías generar una excepción en la función water_left() para alertar de la condición de error:

```
def water_left(astronauts, water_left, days_left):
    daily_usage = astronauts * 11
    total_usage = daily_usage * days_left
    total_water_left = water_left - total_usage
    if total_water_left < 0:
        raise RuntimeError(f"There is not enough water for
```

```
ıater_left, days_left):
; * 11
ge * days_left
·_left - total_usage
't after {days_left} days is: {total_water_left} liters"
```

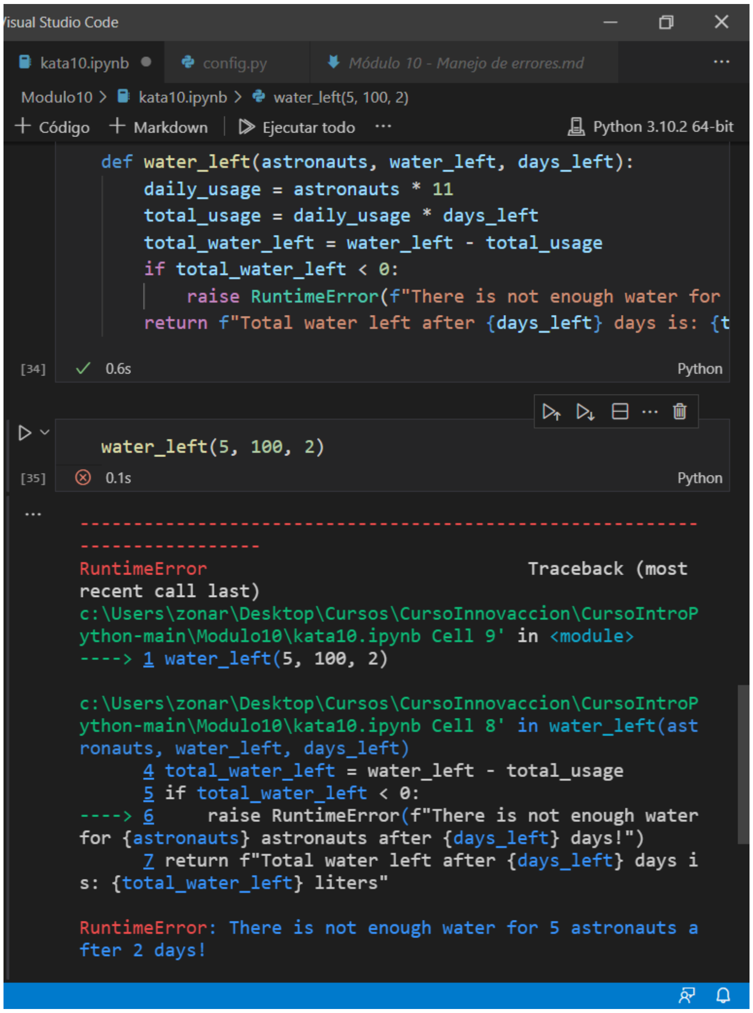
[32] ✓ 0.4s Python

```
water_left(5, 100, 2)
```

[33] ✓ 0.5s Python

```
... 'Total water left after 2 days is: -10 liters'
```

```
Couldn't find the config.txt file!
PS C:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroPython-main> & C:/Users/zonar/AppData/Local/Microsoft/WindowsApps/python3.10.exe c:/Users/zonar/Desktop/C
ursos/CursoInnovaccion/CursoIntroPython-main/Modulo10/config.py
got a problem trying to read the file: [Errno 2] No such file or directory: 'mars.jpg'
PS C:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroPython-main> & C:/Users/zonar/AppData/Local/Microsoft/WindowsApps/python3.10.exe c:/Users/zonar/Desktop/C
ursos/CursoInnovaccion/CursoIntroPython-main/Modulo10/config.py
PS C:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroPython-main> & C:/Users/zonar/AppData/Local/Microsoft/WindowsApps/python3.10.exe c:/Users/zonar/Desktop/C
ursos/CursoInnovaccion/CursoIntroPython-main/Modulo10/config.py
PS C:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroPython-main> & C:/Users/zonar/AppData/Local/Microsoft/WindowsApps/python3.10.exe c:/Users/zonar/Desktop/C
ursos/CursoInnovaccion/CursoIntroPython-main/Modulo10/config.py
PS C:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroPython-main> & C:/Users/zonar/AppData/Local/Microsoft/WindowsApps/python3.10.exe c:/Users/zonar/Desktop/C
ursos/CursoInnovaccion/CursoIntroPython-main/Modulo10/config.py
PS C:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroPython-main>
```



```
def water_left(astronauts, water_left, days_left):
    daily_usage = astronauts * 11
    total_usage = daily_usage * days_left
    total_water_left = water_left - total_usage
    if total_water_left < 0:
        raise RuntimeError(f"There is not enough water for
    return f"Total water left after {days_left} days is: {t
```

[34] ✓ 0.6s Python

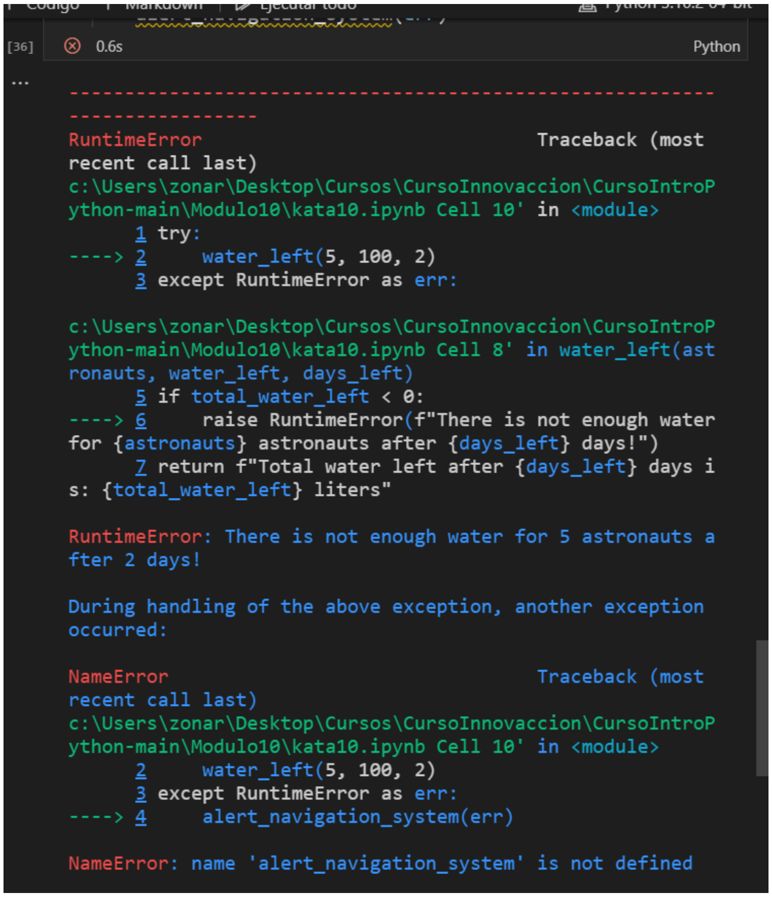
```
water_left(5, 100, 2)
```

[35] ⊗ 0.1s Python

```
---------------------------------------------------------------
-----------------
RuntimeError                              Traceback (most
recent call last)
c:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroP
ython-main\Modulo10\kata10.ipynb Cell 9' in <module>
----> 1 water_left(5, 100, 2)

c:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroP
ython-main\Modulo10\kata10.ipynb Cell 8' in water_left(ast
ronauts, water_left, days_left)
      4 total_water_left = water_left - total_usage
      5 if total_water_left < 0:
----> 6     raise RuntimeError(f"There is not enough water
for {astronauts} astronauts after {days_left} days!")
      7 return f"Total water left after {days_left} days i
s: {total_water_left} liters"

RuntimeError: There is not enough water for 5 astronauts a
fter 2 days!
```



```
---------------------------------------------------------------------------
RuntimeError                              Traceback (most recent call last)
c:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroPython-main\Modulo10\kata10.ipynb Cell 10' in <module>
      1 try:
----> 2     water_left(5, 100, 2)
      3 except RuntimeError as err:

c:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroPython-main\Modulo10\kata10.ipynb Cell 8' in water_left(astronauts, water_left, days_left)
      5 if total_water_left < 0:
----> 6     raise RuntimeError(f"There is not enough water for {astronauts} astronauts after {days_left} days!")
      7 return f"Total water left after {days_left} days is: {total_water_left} liters"

RuntimeError: There is not enough water for 5 astronauts after 2 days!

During handling of the above exception, another exception occurred:

NameError                                 Traceback (most recent call last)
c:\Users\zonar\Desktop\Cursos\CursoInnovaccion\CursoIntroPython-main\Modulo10\kata10.ipynb Cell 10' in <module>
      2     water_left(5, 100, 2)
      3 except RuntimeError as err:
----> 4     alert_navigation_system(err)

NameError: name 'alert_navigation_system' is not defined
```