



# Information Technology

Year 2020/2021

## Introduction to Programming


Programming in Python



1911

# Files

- Reading from a file
  - First create a text file called pi\_digits.txt

 jupyter pi\_digits.txt ✓ a few seconds ago

File Edit View Language



```
1 3.1415926535
2 8979323846
3 2643383279
```



1911

# Files

- Reading from a file
  - Reading the file pi\_digits

jupyter Untitled4 Last Checkpoint: 4 minutes ago (unsaved changes)

```
File Edit View Insert Cell Kernel Widgets Help
[Save] [New] [Close] [Copy] [Paste] [Up] [Down] [Run] [Stop] [Refresh] [Next] Code [Help]

In [2]: with open('pi_digits.txt') as file_object:
        contents = file_object.read()
        print(contents)


3.1415926535
8979323846
2643383279
```

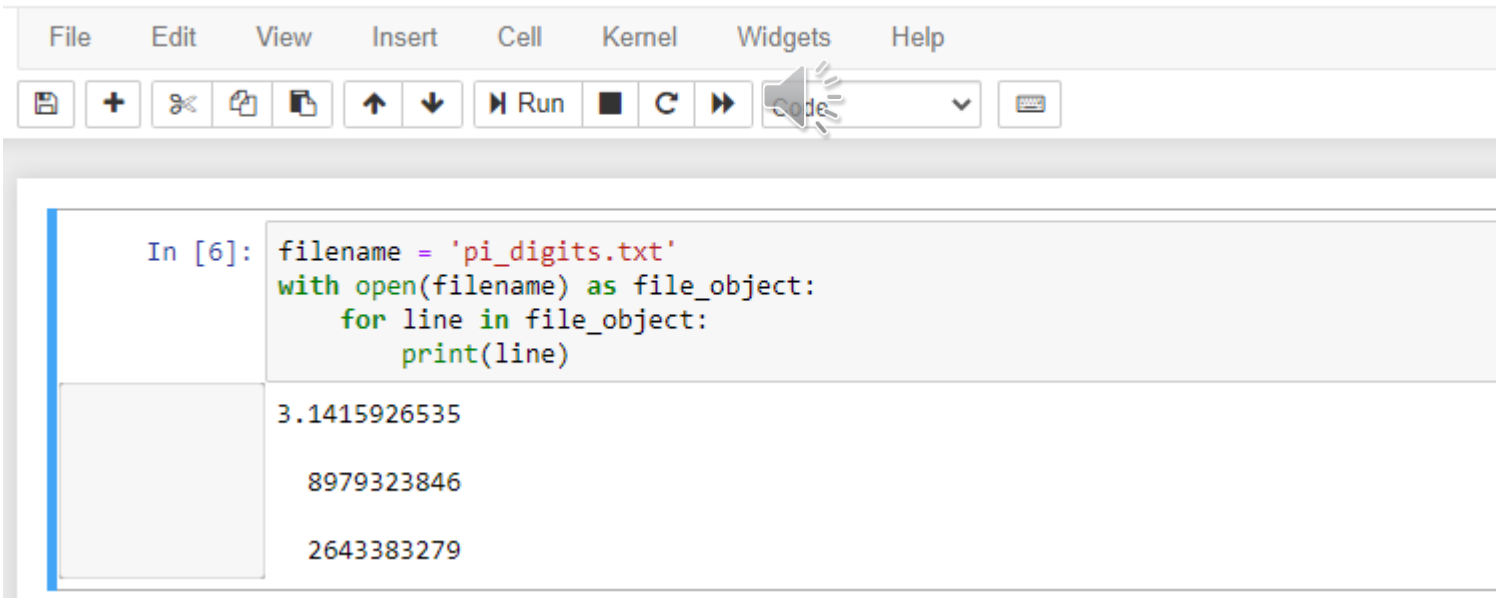


1911

# Files

- Reading from a file
  - Reading the file pi\_digits line per line

 jupyter Untitled4 Last Checkpoint: 10 minutes ago (autosaved)



The screenshot shows a Jupyter Notebook interface. At the top, there is a menu bar with options: File, Edit, View, Insert, Cell, Kernel, Widgets, and Help. Below the menu bar is a toolbar with icons for saving, adding, undo, redo, home, end, run, stop, refresh, and a dropdown menu currently set to 'Code'. The main area contains a code cell with the following Python code:

```
In [6]: filename = 'pi_digits.txt'
with open(filename) as file_object:
    for line in file_object:
        print(line)
```

Below the code cell, the output is displayed as three separate lines of text:

```
3.1415926535
8979323846
2643383279
```



1911

# Files

- Reading from a file
  - Reading the file pi\_digits line per line into a list

jupyter Untitled4 Last Checkpoint: 14 minutes ago (autosaved)

File Edit View Insert Cell Kernel Widgets Help

Code

```
In [7]: filename = 'pi_digits.txt'
with open(filename) as file_object:
    lines = file_object.readlines()
for line in lines:
    print(line.rstrip())
```


3.1415926535  
8979323846  
2643383279



1911

# Files

- Writing to a file
  - Will overwrite the existing file

 jupyter Untitled4 Last Checkpoint: 20 minutes ago (autosaved)

File Edit View Insert Cell  Widgets Help

        Run    Code 

```
In [8]: filename = 'example.txt'
with open(filename, 'w') as file_object:
    file_object.write("first line \n")
    file_object.write("second line\n")
```



1911

# Files

- Writing to a file
  - Will append the text to the existing file

jupyter Untitled4 Last Checkpoint: 23 minutes ago (unsaved changes)

```
In [9]: filename = 'example.txt'
with open(filename, 'a') as file_object:
    file_object.write("third line \n")
```