7

Python Quick Tips

Try/Except Statements

Python Quick Tips #7

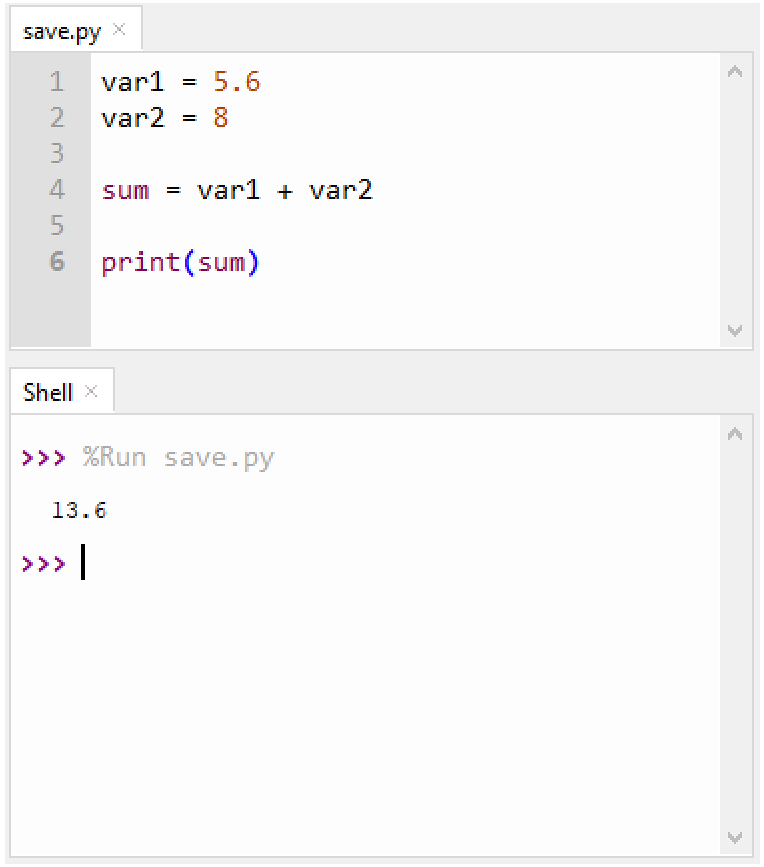
Try/Except Statements

Errors

Errors must be **anticipated** and **handled**

Example

OK



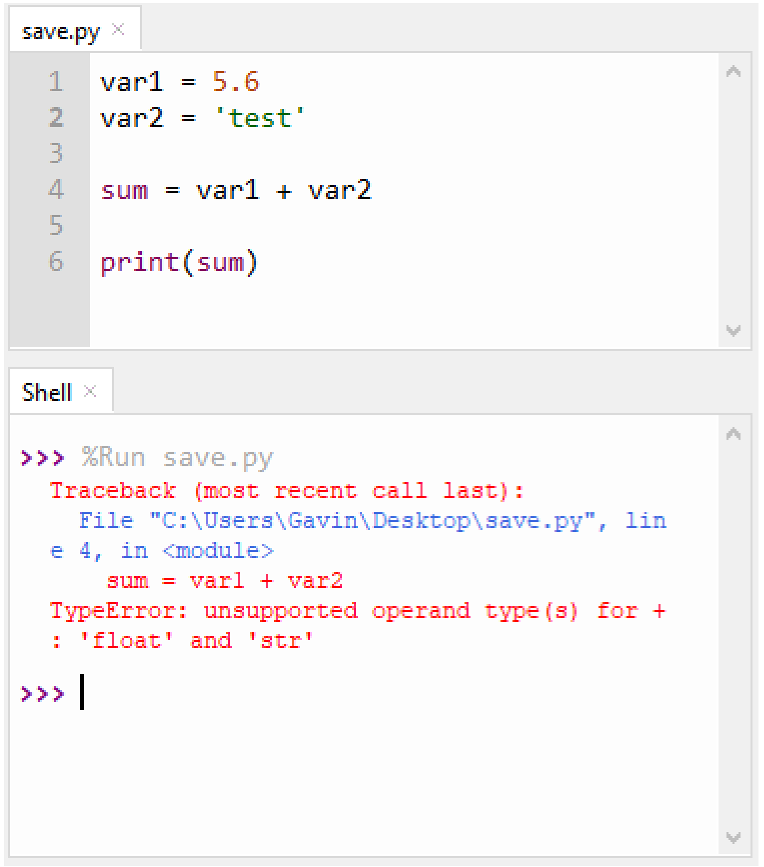
save.py

```
var1 = 5.6
var2 = 8

sum = var1 + var2

print(sum)
```

Shell

```
>>> %Run save.py
  13.6
>>> 
```

Error



save.py

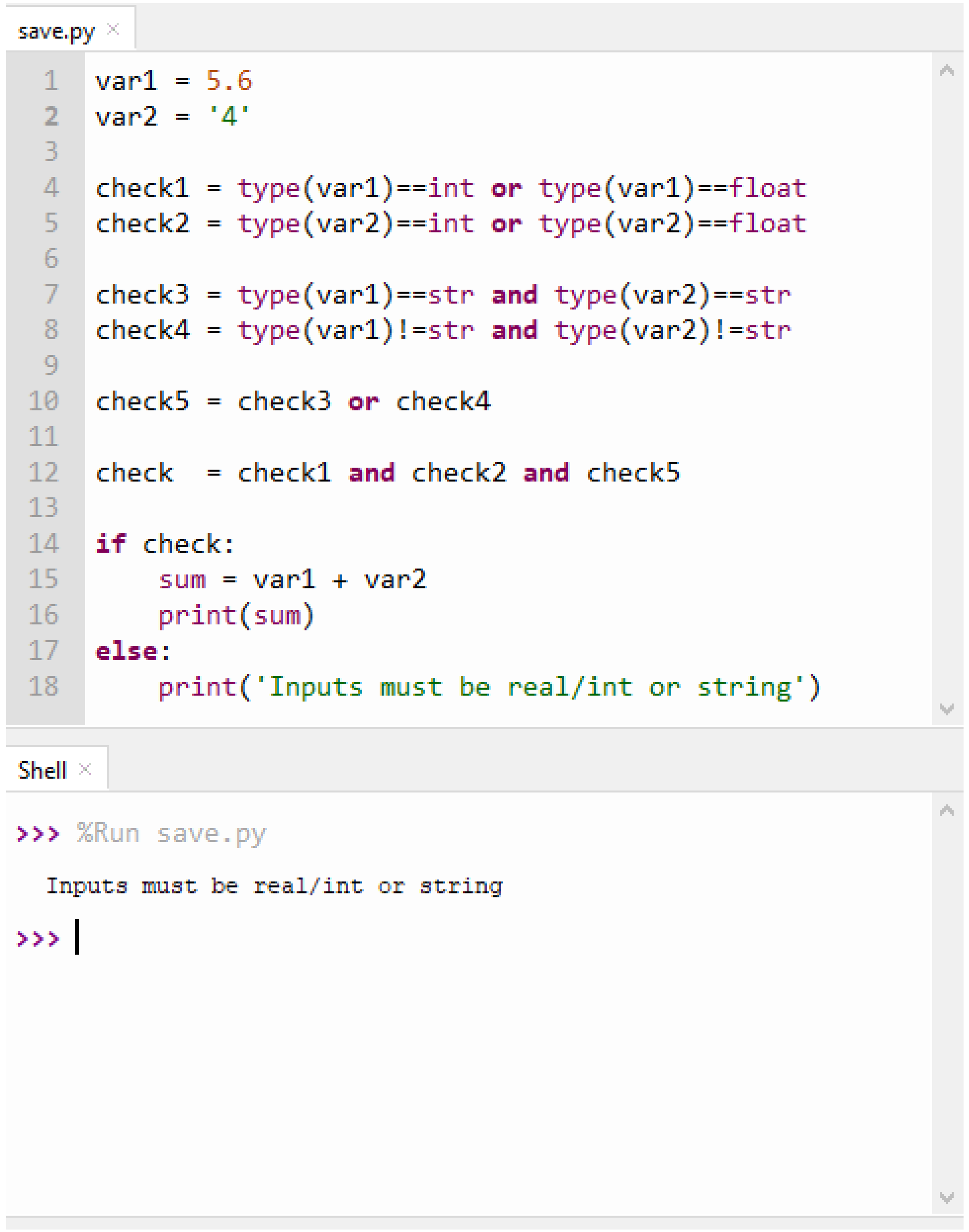
```
var1 = 5.6
var2 = 'test'

sum = var1 + var2

print(sum)
```

Shell

```
>>> %Run save.py
  Traceback (most recent call last):
    File "C:\Users\Gavin\Desktop\save.py", lin
  e 4, in <module>
      sum = var1 + var2
  TypeError: unsupported operand type(s) for +
  : 'float' and 'str'
>>> 
```

Using If

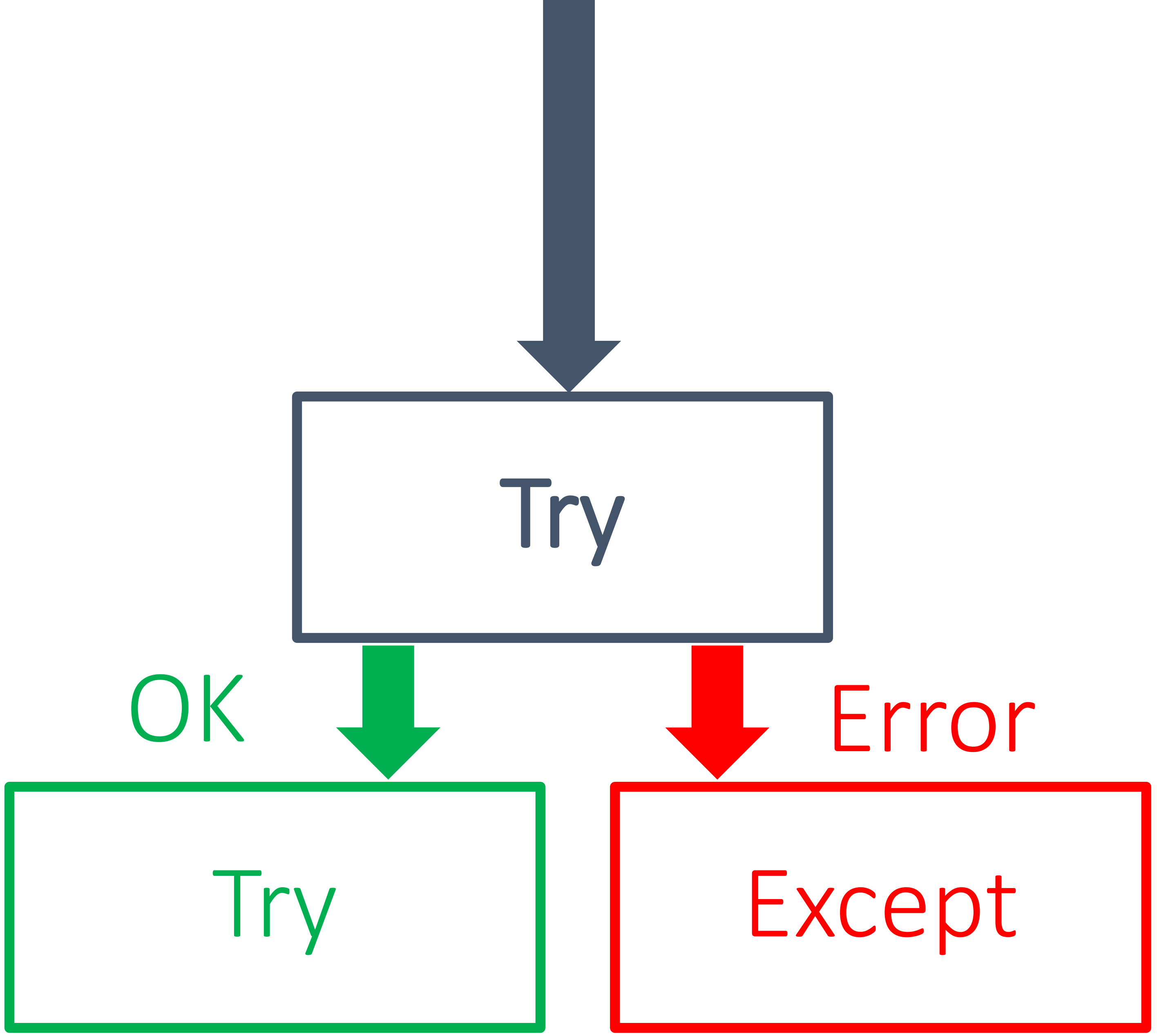
= Yuck!



```python
var1 = 5.6
var2 = '4'

check1 = type(var1)==int or type(var1)==float
check2 = type(var2)==int or type(var2)==float

check3 = type(var1)==str and type(var2)==str
check4 = type(var1)!=str and type(var2)!=str

check5 = check3 or check4

check  = check1 and check2 and check5

if check:
    sum = var1 + var2
    print(sum)
else:
    print('Inputs must be real/int or string')
```

```
>>> %Run save.py

  Inputs must be real/int or string

>>> 
```

Try/Except



Try/Except Statements

Syntax

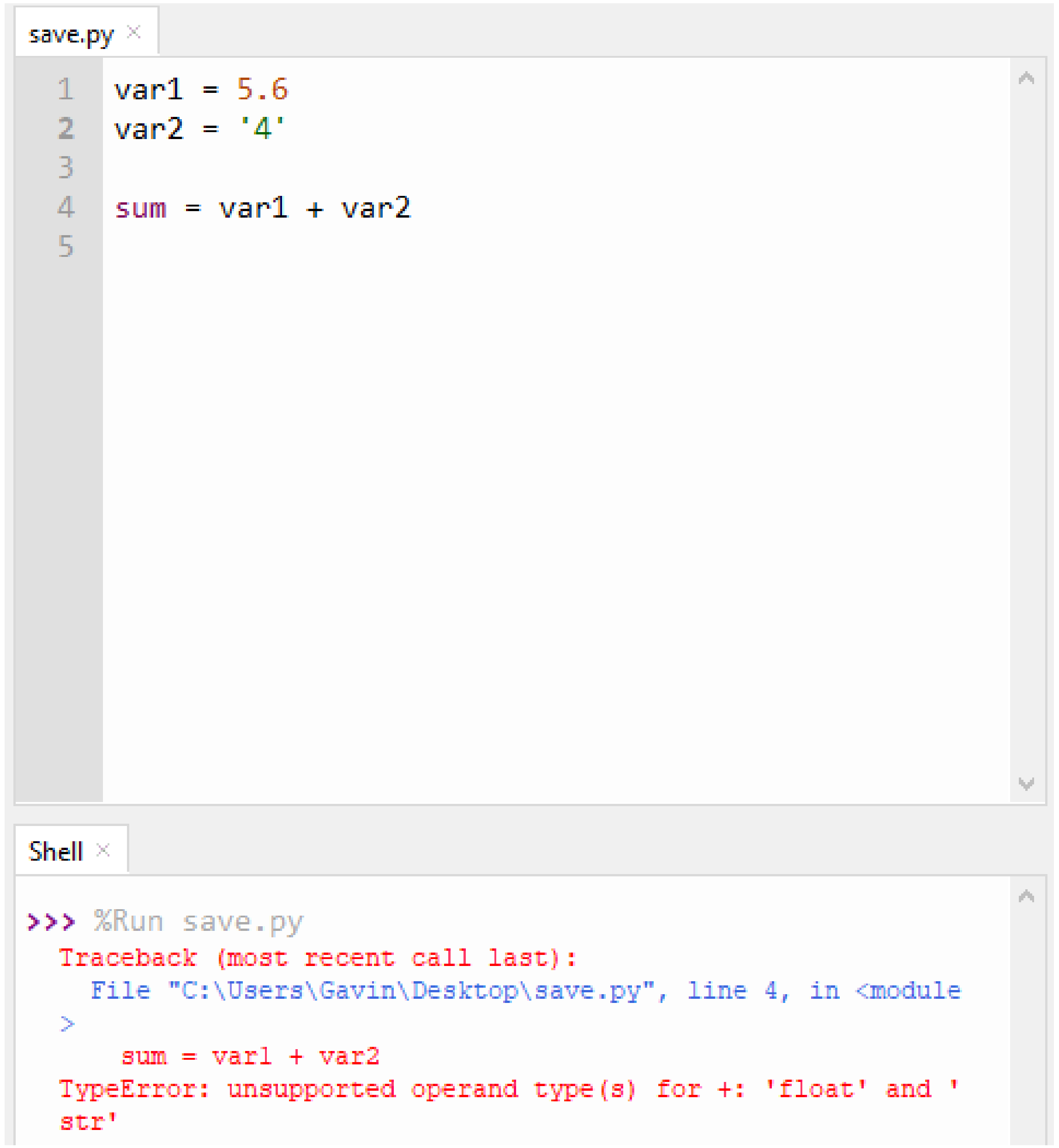
try:

(tab)test (no error)

except:

(tab)unless (error)

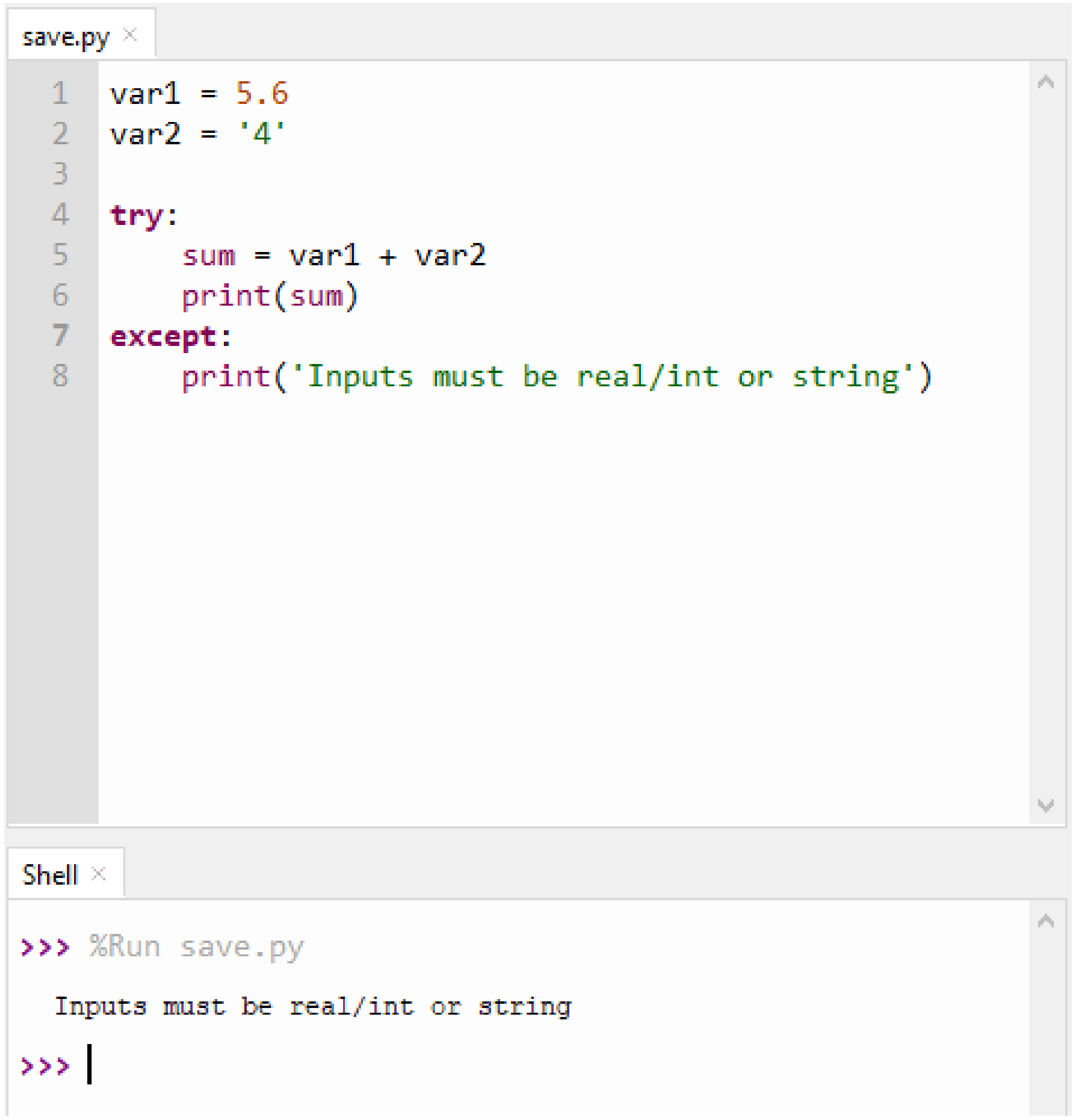
Unhandled



```
var1 = 5.6
var2 = '4'

sum = var1 + var2

```

```
>>> %Run save.py
  Traceback (most recent call last):
    File "C:\Users\Gavin\Desktop\save.py", line 4, in <module
  >
      sum = var1 + var2
  TypeError: unsupported operand type(s) for +: 'float' and '
  str'
```

Handled!



```
var1 = 5.6
var2 = '4'

try:
    sum = var1 + var2
    print(sum)
except:
    print('Inputs must be real/int or string')
```

```
>>> %Run save.py
  Inputs must be real/int or string
>>>
```

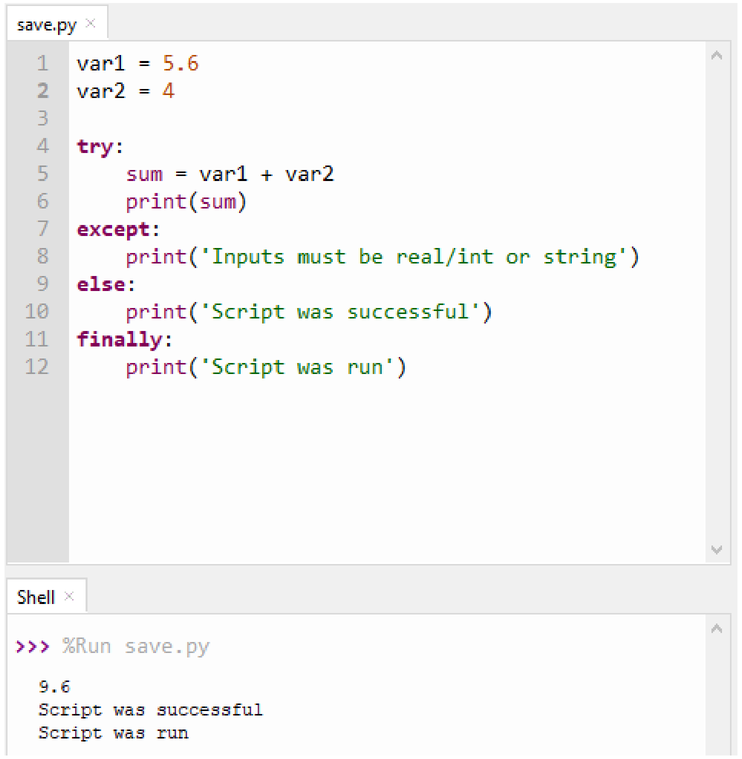
Else/Finally

We can also add

```
else:
(tab)this (no error)
finally:
(tab)that (either way)
```

Example

OK



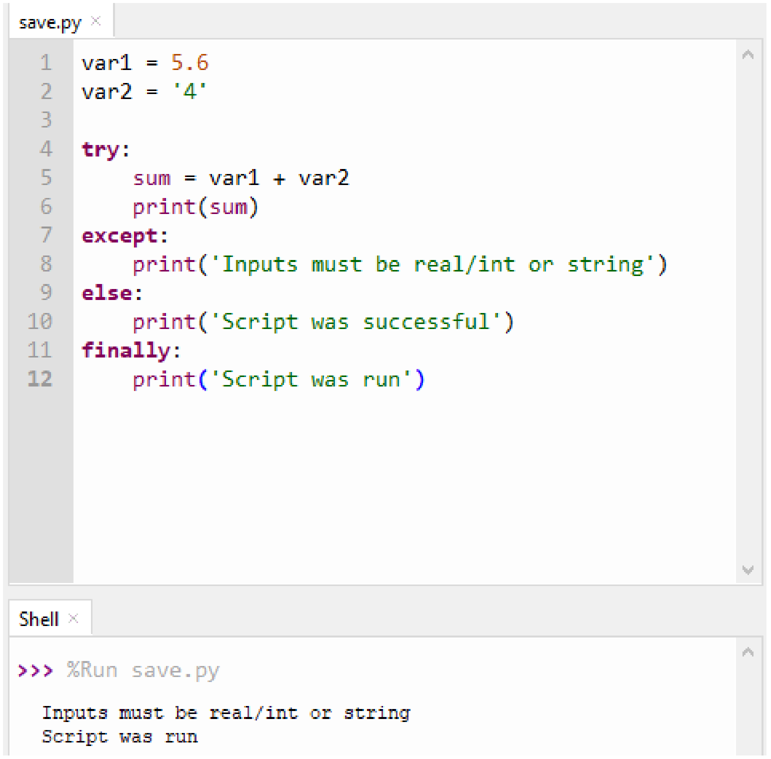
save.py

```python
var1 = 5.6
var2 = 4

try:
    sum = var1 + var2
    print(sum)
except:
    print('Inputs must be real/int or string')
else:
    print('Script was successful')
finally:
    print('Script was run')
```

Shell

```
>>> %Run save.py

  9.6
  Script was successful
  Script was run
```

Error



save.py

```python
var1 = 5.6
var2 = '4'

try:
    sum = var1 + var2
    print(sum)
except:
    print('Inputs must be real/int or string')
else:
    print('Script was successful')
finally:
    print('Script was run')
```

Shell

```
>>> %Run save.py

  Inputs must be real/int or string
  Script was run
```

Next on #8

Loops (for/while)

7

Python Quick Tips

Try/Except Statements