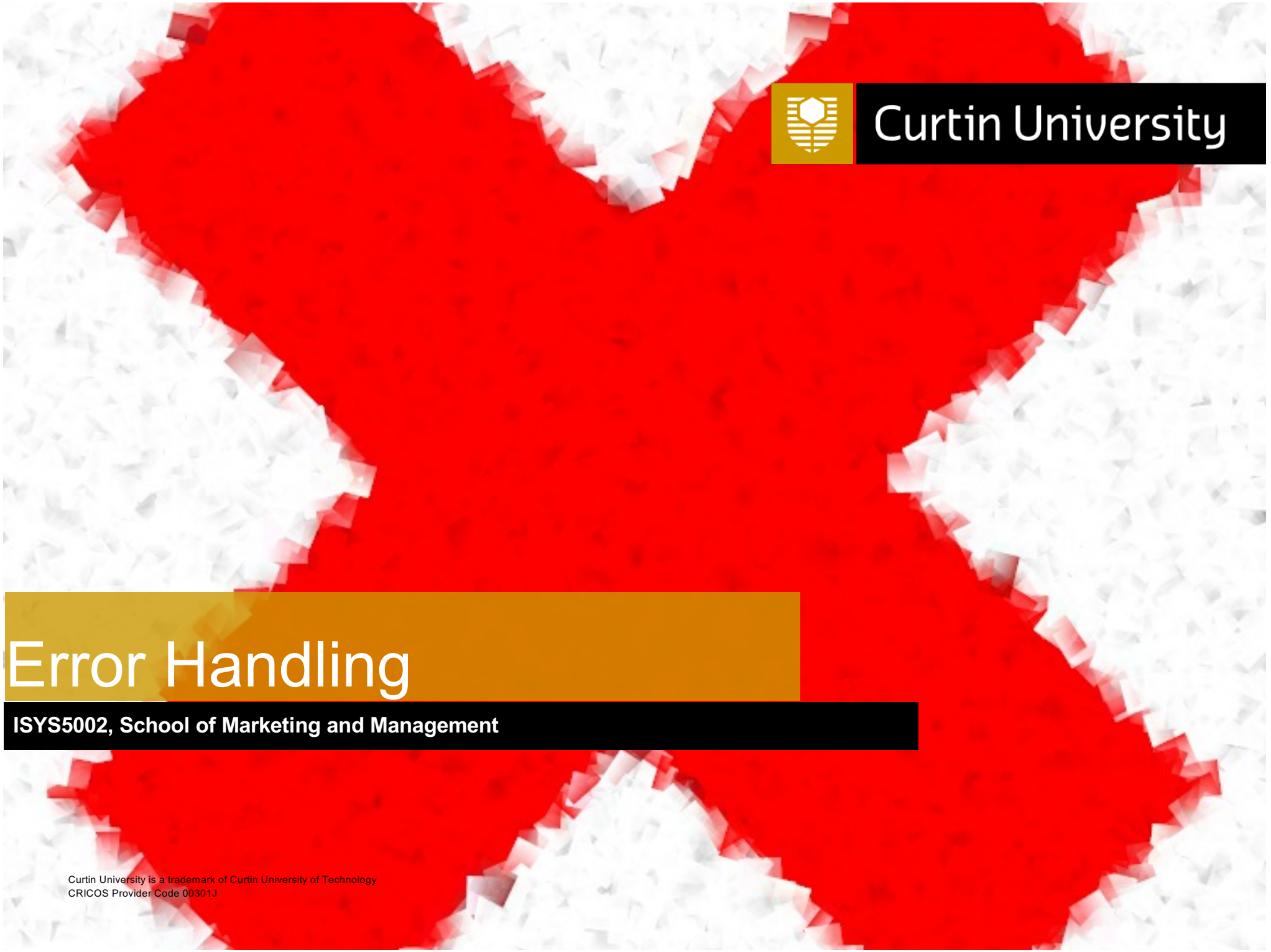

Error Handling

ISYS5002, School of Marketing and Management

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Curtin University

I acknowledge the traditional custodians of the land on which I work and live, and recognise their continuing connection to land, water and community. I pay respect to elders past, present and emerging.

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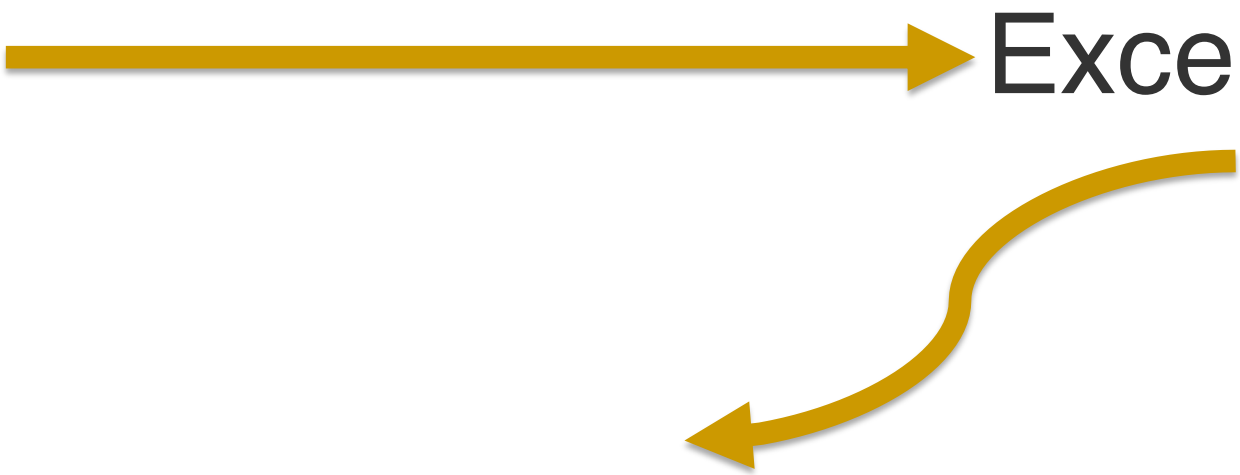


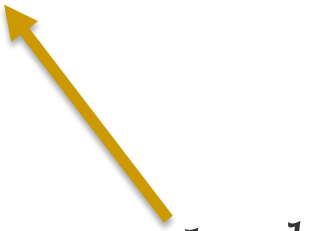
Exception Object:
- Description
- Traceback

```
for count in [5,4,3,2,1]
  print(count)
```

```
  File "<ipython-input-25-d442a8547899>", line 1
    for count in [5,4,3,2,1]
                             ^
SyntaxError: invalid syntax
```

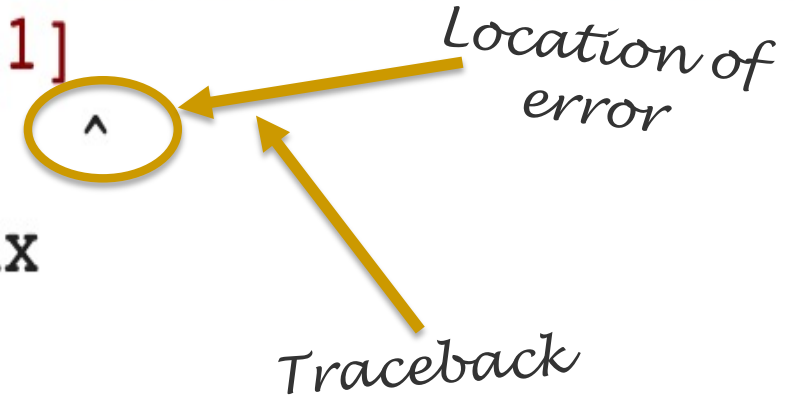
```
for count in [5,4,3,2,1]
  print(count)
```

```
  File "<ipython-input-25-d442a8547899>", line 1
    for count in [5,4,3,2,1]
                             ^
SyntaxError: invalid syntax
```



```
for count in [5,4,3,2,1]
  print(count)
```

```
  File "<ipython-input-25-d442a8547899>", line 1
    for count in [5,4,3,2,1]
                  ^
SyntaxError: invalid syntax
```



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```
for count in [5,4,3,2,1]
  print(count)
```

```
  File "<ipython-input-25-d442a8547899>", line 1
    for count in [5,4,3,2,1]
                 ^
SyntaxError: invalid syntax
```

Location of error

Traceback

Description

```
for count in [5,4,3,2,1]
  print(count)
```

```
  File "<ipython-input-25-d442a8547899>", line 1
    for count in [5,4,3,2,1]
                 ^
SyntaxError: invalid syntax
```

Location of error

Traceback

Exception Type

Description

```
1/0
```

```
---------------------------------------------------------------------------
ZeroDivisionError                         Traceback (most recent call last)
<ipython-input-26-9e1622b385b6> in <module>()
----> 1 1/0

ZeroDivisionError: division by zero
```

```
1/0
```

```
---------------------------------------------------------------------------
ZeroDivisionError                         Traceback (most recent call last)
<ipython-input-26-9e1622b385b6> in <module>()
----> 1 1/0

ZeroDivisionError: division by zero
```

Exception Type

```
with open('readme.txt') as f:
    lines = f.readlines()
```

```
---------------------------------------------------------------------------
FileNotFoundError                         Traceback (most recent call last)
<ipython-input-27-ec76974b55a1> in <module>()
----> 1 with open('readme.txt') as f:
      2     lines = f.readlines()

FileNotFoundError: [Errno 2] No such file or directory: 'readme.txt'
```

```
with open('readme.txt') as f:
    lines = f.readlines()
```

```
---------------------------------------------------------------------------
FileNotFoundError                         Traceback (most recent call last)
<ipython-input-27-ec76974b55a1> in <module>()
----> 1 with open('readme.txt') as f:
      2     lines = f.readlines()

FileNotFoundError: [Errno 2] No such file or directory: 'readme.txt'
```

Exception Type

```
age = int(input("How old are you?"))
```

```
How old are you?ten
---------------------------------------------------------------------------
ValueError                                Traceback (most recent call last)
<ipython-input-24-f7a714c57d43> in <module>()
----> 1 age = int(input("How old are you?"))

ValueError: invalid literal for int() with base 10: 'ten'
```

SEARCH STACK OVERFLOW

```
age = int(input("How old are you?"))
```

```
How old are you?ten
---------------------------------------------------------------------------
ValueError                                Traceback (most recent call last)
<ipython-input-24-f7a714c57d43> in <module>()
----> 1 age = int(input("How old are you?"))

ValueError: invalid literal for int() with base 10: 'ten'
```

SEARCH STACK OVERFLOW

Exception Type

```
try:
    with open('readme.txt') as f:
        lines = f.readlines()
except FileNotFoundError:
    lines = "Umm... can't find the file"

print(lines)
```

```
Umm... can't find the file
```

Create a new block to 'try' the problem code

```
try:
    with open('readme.txt') as f:
        lines = f.readlines()
except FileNotFoundError:
    lines = "Umm... can't find the file"

print(lines)
```

```
Umm... can't find the file
```

Block to run if something goes wrong

Create a new block to 'try' the problem code

```
try:
    with open('readme.txt') as f:
        lines = f.readlines()
except FileNotFoundError:
    lines = "Umm... can't find the file"

print(lines)
```

```
Umm... can't find the file
```

Block to run if something goes wrong

Create a new block to 'try' the problem code

The 'something'

```
try:
    with open('readme.txt') as f:
        lines = f.readlines()
except FileNotFoundError:
    lines = "Umm... can't find the file"

print(lines)
```

```
Umm... can't find the file
```

Error Handling

- Exceptions
  - SyntaxError (fix, don't use try/exception)
  - ZeroDivisionError
  - FileNotFoundError
  - ValueError
  - Many others
- try/except block (simple)
- try/except/else/finally (advanced)