Learning Goals/Objectives

Be able to read, comprehend, trace, adapt and create

Python code that:

- Catches general exceptions
- Catches value exceptions
- Outputs suitable error messages

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What Is An Exception?

- An exception is something that happens during a program's run that disrupts the flow of instructions.
- They usually produce error messages - these are generated by an **exception handler.**
- It's possible to code our own exception handlers to prevent the program crashing in certain circumstances.

```
Enter a number100
Traceback (most recent call last):
  File "/Users/anh/www/150/online/examples/readingErrorMessages.py", line 14, in
 <module>
    y = x + 10
TypeError: Can't convert 'int' object to str implicitly
>>>
```

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Basic Exception Handling

Exceptions - How To Code

```
try:
    Run this code in normal
  circumstances
except:
  Run this code when there is an
  exception
```

Exceptions - How To Code

```
name = “Dave”


try:
    print(name)
except:
  print(“The variable has not been
  assigned”)
```

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Exceptions - How To Code

```
try:
    print(name)
except:
  print(“The variable has not been
  assigned”)
```

Exceptions - How To Code

```
try:
    print(name)
except NameError:
  print("The variable has not been
  assigned")
except:
    print("Something else went wrong)
```

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Exceptions - How To Code

```
try:
    print(name)
except NameError:
  print("The variable has not been
  assigned")
except:
    print("Something else went wrong)
else:
    print("nothing went wrong")
```

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Exceptions - How To Code

```
try:
    print(name)
except NameError:
  print("The variable has not been assigned")
except:
    print("Something else went wrong)
else:
    print("Nothing went wrong")
finally:
    print("The try except has finished")
```

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Value Errors

Value Errors - How To Code

1. Cast the input to the desired data type.

```
try:
    num1 = int(input("Type a number
    between 1 and 10"))
except ValueError:
        print("Hey, that wasn't a
number!")
else:
        print("You typed " + num1)
```

2. Use 'ValueError' in your except.

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