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# Types of Errors

SKILLS FOR LIFE
SKILLS BOOTCAMPS

Department for Education

# Software Engineering Lecture Housekeeping

- The use of disrespectful language is prohibited in the questions, this is a supportive, learning environment for all - please engage accordingly. **(FBV: Mutual Respect.)**
- No question is daft or silly - **ask them!**
- There are **Q&A sessions** midway and at the end of the session, should you wish to ask any follow-up questions. Moderators are going to be answering questions as the session progresses as well.
- If you have any questions outside of this lecture, or that are not answered during this lecture, please do submit these for upcoming Open Classes. You can submit these questions here: **Open Class Questions**

# **Software Engineering Lecture Housekeeping** cont.

- For all **non-academic questions**, please submit a query: www.hyperiondev.com/support

- Report a **safeguarding** incident: www.hyperiondev.com/safeguardreporting

- We would love your **feedback** on lectures: Feedback on Lectures

# Progression Criteria

### ✅ Criterion 1: Initial Requirements

- Complete 15 hours of Guided Learning Hours and the first four tasks within two weeks.

### ✅ Criterion 2: Mid-Course Progress

- Software Engineering: Finish 14 tasks by week 8.
- Data Science: Finish 13 tasks by week 8.

### ✅ Criterion 3: Post-Course Progress

- Complete all mandatory tasks by 24th March 2024.
- Record an Invitation to Interview within 4 weeks of course completion, or by 30th March 2024.
- Achieve 112 GLH by 24th March 2024.

### ✅ Criterion 4: Employability

- Record a Final Job Outcome within 12 weeks of graduation, or by 23rd September 2024.

# Lecture Objectives

1. Identify and categorise different types of errors in Python.
2. Explain the causes and effects of various error types.
3. Implement effective error handling techniques to manage errors in Python.

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# Recap on Iteration

# Poll:

## Assessment

# We all make mistakes :)

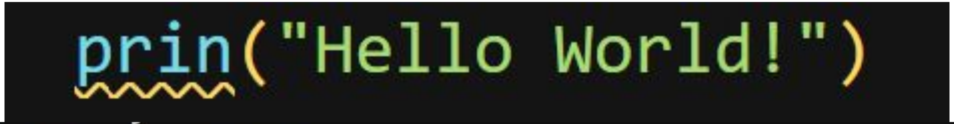
★ No programmer is perfect, and we’re going to make a lot of mistakes in our journey – and that is perfectly okay!

★ What separates the good programmers from the rest is the ability to find and debug errors that they encounter.

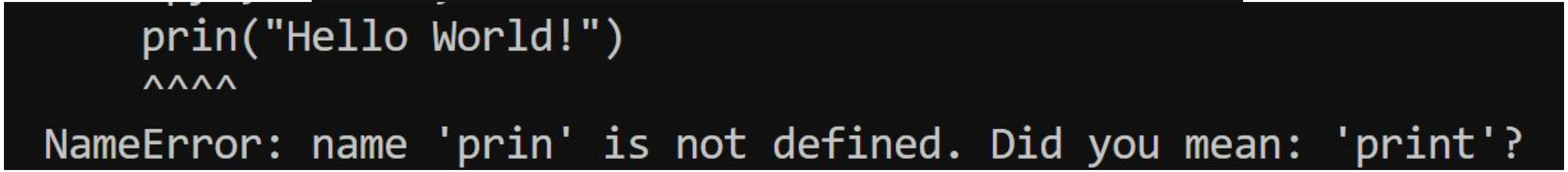
# Syntax Errors

- Some of the easiest errors to fix… usually
- Mainly caused by typos in code or Python specific keywords that were misspelled or rules that were not followed.
- When incorrect syntax is detected, Python will stop running and display an error message.

# Syntax Errors

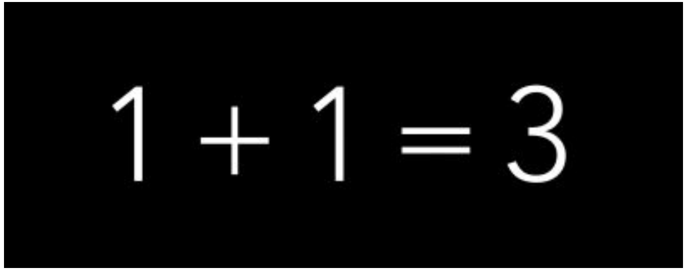


```
prin("Hello World!")
```



```
    prin("Hello World!")
    ^^^^
NameError: name 'prin' is not defined. Did you mean: 'print'?
```

# Logical Errors



$1 + 1 = 3$

# Logical Errors

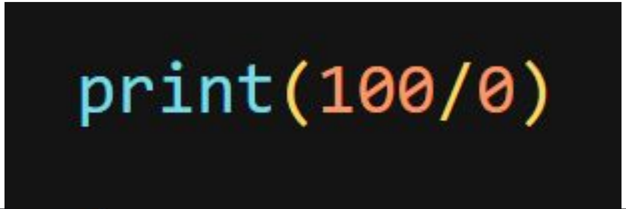
★ Logical errors occur when your program is running, but the output you are receiving is not what you are expecting.

★ The code could be typed incorrectly, or perhaps an important line has been omitted, or the instructions given to the program have been coded in the wrong order.

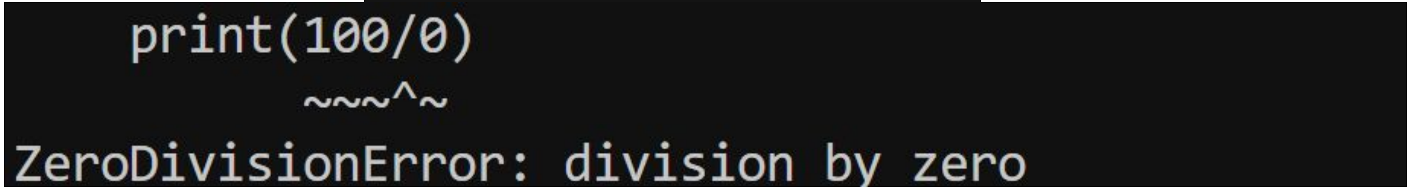
# Question:

What kind of error occurs when you misspell a keyword, such as for or if ?

# Runtime Errors



```
print(100/0)
```



```
    print(100/0)
          ~~~^~
ZeroDivisionError: division by zero
```

# Challenge:

Correct the following syntax error:

```
prnt(“Hello World’)
```

# Poll:

# Assessment

# Wrapping Up

## Error Handling

A process of dealing with errors that may occur during the execution of a program.

## Types of Errors

Syntax, runtime and logical errors.

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Questions around Error Types

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## Thank you for joining

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