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Welcome to this session: Programming Best Practices

The session will start shortly...

Questions? Drop them in the chat.
We'll have dedicated moderators answering questions.

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What is Safeguarding?

Safeguarding refers to actions and measures aimed at protecting the human rights of adults, particularly vulnerable individuals, from abuse, neglect, and harm.

To report a safeguarding concern reach out to us via email:

safeguarding@hyperiondev.com

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Live Lecture Housekeeping:

- The use of disrespectful language is prohibited in the questions, this is a supportive, learning environment for all - please engage accordingly.
- No question is daft or silly - ask them!
- For all non-academic questions, please submit a query: www.hyperiondev.com/support
- To report a safeguarding concern reach out to us via email: safeguarding@hyperiondev.com
- If you are hearing impaired, please kindly use your computer's function through Google chrome to enable captions.

Stay Safe Series:

Mastering Online Safety One Week/step at a Time

While the digital world can be a wonderful place to make education and learning accessible to all, it is unfortunately also a space where harmful threats like online radicalisation, extremist propaganda, phishing scams, online blackmail and hackers can flourish.

As a component of this BootCamp the *Stay Safe Series* will/is designed to guide you through essential measures in order to protect yourself & your community from online dangers, whether they target your privacy, personal information or even attempt to manipulate your beliefs.

Shop Smart: Staying Safe with Online Purchases

- Ensure you have a secure connection.
- Use familiar merchants.
- Use secure passwords.
- Don’t make purchases on public connections.
- Make sure the payment method is secure.
- Look at online reviews.

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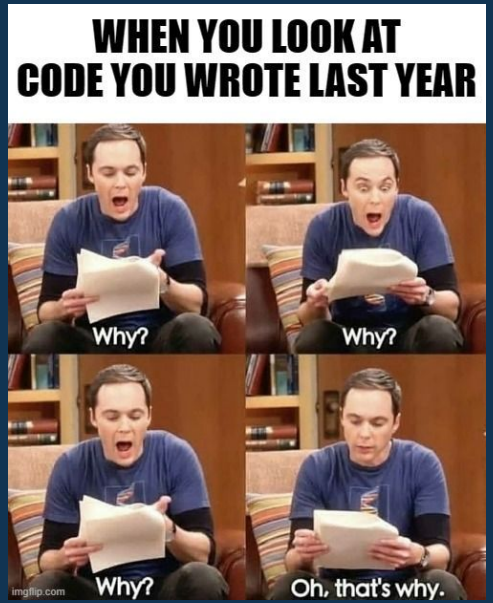
Best Practices



Learning Outcomes

- Identify general programming best practices.
- Apply Python-specific best practices in their projects.
- Recognise the importance of clean, maintainable, and efficient code.

Software Engineering

Why do you think readability is important in programming?

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Software Engineering

How do you decide when to add comments versus relying on clear code?

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Software Engineering

If you found a piece of your own code was inefficient but still functional, would you refactor it? Why or why not?

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Programming Best Practices

Code Readability

- Code should be clear
- Easy to read and understand

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Programming Best Practices

Commenting and Documentation

- Add meaningful comment to your code.
- Maintain clear documentation.

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Programming Best Practices

Version Control

- Use a version control system such as Git to ensure backups of projects.

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Programming Best Practices

Modularisation

- Break your code up into reusable functions and modules.

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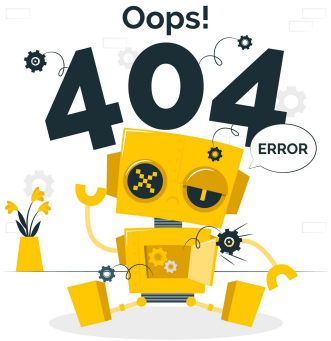
Programming Best Practices

Error Handling

- Implement error handling into your code to create robust systems.



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Key Python Practices

Following PEP 8

- PEP 8 is the official style guide for Python.

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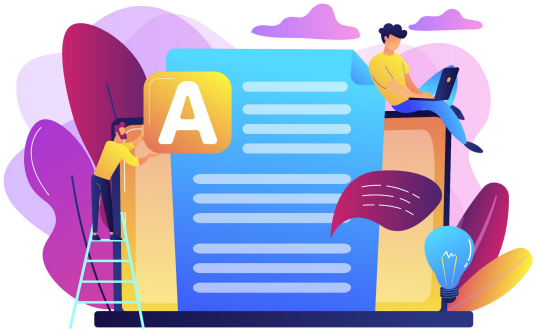
Key Python Practices

Naming Conventions

- Be clear and consistent with variable and function naming conventions.
- Be sure to use snake case. E.g my_variable



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Key Python Practices

Using Virtual Environments

- Isolate your project and their dependencies.

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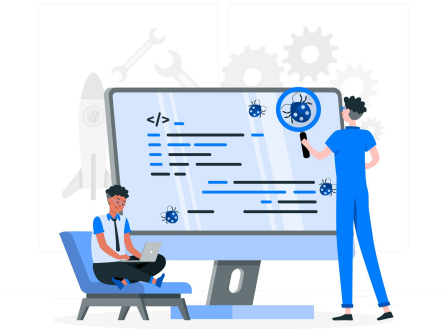
Key Python Practices

Linters

- Using linters will help improve code style and well as ensure best practices are being followed.



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Polls

Please have a look at the poll notification and select an option.

What is the primary reason for following coding standards like PEP 8?

A. To make code run faster
B. To improve readability and consistency
C. To make code look colourful in an IDE
D. To avoid using comments altogether

Polls

Please have a look at the poll notification and select an option.

What is the recommended practice for naming variables in Python?

A. Use random letters and numbers
B. Use descriptive and meaningful names
C. Use uppercase letters for all variables
D. Use single letters like x, y, z for all variables

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Recap

- Best practices will help you write clean, maintainable, and efficient code, whether working alone or in a team.
- Use version control to ensure backups of your projects.
- Use meaningful comments and keep documentation up to date.
- Use style guide and Linter to improve code quality.

Q & A SECTION

Please use this time to ask any questions relating to the topic, should you have any.


Thank you
for attending
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