

# Python Set Operations

Unit 5: Dictionary, List, Set, String and Tuple  
Lecture 39: Python Set Operations

# Agenda

- Union ( $\cup$ )
- Intersection ( $\cap$ )
- Difference ( $-$ )
- Symmetric Difference ( $\hat{\cup}$ )

# Deep Dive: Union (—)

Understanding the core mechanics of Union (—).  
Memory complexity and time complexity considerations.  
Common edge cases in Python.

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# Deep Dive: Intersection (&)

Understanding the core mechanics of Intersection (&).  
Memory complexity and time complexity considerations.  
Common edge cases in Python.

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# Deep Dive: Difference (-)

Understanding the core mechanics of Difference (-).  
Memory complexity and time complexity considerations.  
Common edge cases in Python.

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# Deep Dive: Symmetric Difference (^)

Understanding the core mechanics of Symmetric Difference (^).  
Memory complexity and time complexity considerations.  
Common edge cases in Python.

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# Deep Dive: Union (—)

Understanding the core mechanics of Union (—).  
Memory complexity and time complexity considerations.  
Common edge cases in Python.

# Deep Dive: Intersection (&)

Understanding the core mechanics of Intersection (&).  
Memory complexity and time complexity considerations.  
Common edge cases in Python.

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# Deep Dive: Difference (-)

Understanding the core mechanics of Difference (-).  
Memory complexity and time complexity considerations.  
Common edge cases in Python.

# Deep Dive: Symmetric Difference (^)

Understanding the core mechanics of Symmetric Difference (^).  
Memory complexity and time complexity considerations.  
Common edge cases in Python.

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# Summary

- Review of key concepts.
- Best practices and Pythonic idioms.
- Common pitfalls avoided.

# Next Lecture Preview

Next up: Tuple Built-in Functions: Creating Tuples, Accessing Tuple  
- Preparation reading recommended.