

Programming and Database Fundamentals for Data Scientists

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Recap

What have we seen so far?

- ▶ Python lists
- ▶ Manipulating lists

Decision Structures

- ▶ Any computer program specifies a *sequence* of actions that the computer must take
- ▶ Often, one might need to “break the flow”
- ▶ This can be done using **Control Structures**
 - ▶ Decision structures
 - ▶ `if`, `if-else`, `if-elif-else`
 - ▶ `try-except`
 - ▶ Loops
 - ▶ `for`, `while`

Loops

- ▶ `for <var> in <sequence>: <body>`
- ▶ The sequence can be any data structure that allows iterations over it, e.g., lists
- ▶ `while <condition>: <body>`

Types of Loops

- ▶ Definite loops
- ▶ Indefinite loops
- ▶ Interactive loops
- ▶ File loops
- ▶ Nested loops
- ▶ Post-Test loops
- ▶ Sentinel loops

Quick Boolean Algebra Primer

- ▶ Boolean expressions are heavily used to deal with control structures
- ▶ Key logical statements – and, or, not
- ▶ Order of precedence: not \gg and \gg or

References