Intro to Higher Order Functions

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CS8 – Computational Structures in Data Science

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Lecture 3

Feb 8, 2016

Administrative issues

- **Tues lab session to help bio 1al**

- **Homework 2 due Tuesday**

- **Project 1 Cuke going out soon**
  - **First part is homework liks**

Computational Concepts Toolbox

- **Data type: values, literals, operations,**
  - e.g., int, float, string
- **Expressions, Call expression**
- **Variables**
- **Assignment Statement**
- **Sequences: tuple, list**
- **Data structures**
- **Tuple assignment**
- **Call Expressions**
- **Function Definition Statement**
- **Conditional Statement**
- **Iteration:**
  - data-driven (list comprehension)
  - control-driven (for statement)
  - while statement

Computational Concepts today

- **Higher Order Functions**

- **Functions as Values**

- **Functions with functions as argument**

- **Assignment of function values**

- **Higher order function patterns**
  - **Map, Filter, Reduce**

- **Function factories – create and return functions**

Big Idea: Software Design Patterns