Programming, Problem Solving, and Algorithms

CPSC 203, 2024 W2
(January – April 2025)
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Lecture 03

Announcements

- Lab 1 is due by Thursday January 16 at noon
  - Or by Saturday January 18 at noon for 80% credit
- Attendance at the staffed lab times is optional
  - See pinned Piazza post “Lab attendance policy and schedule” for times and locations
- POTW 1 is due Sunday January 19 at noon
  - Or by Tuesday January 21 at noon for 80% credit
- Test 1 in the CBTF Thursday January 16 to Monday January 20 inclusive
  - See https://cbtf.ubc.ca for information about the CBTF
  - Open Monday – Saturday (closed Sundays)
  - I will post to Piazza when bookings open
- All deadlines can be found on PrairieLearn

Last Class

- Algorithms and programming have existed for centuries
  - Long before the invention of modern electronic computer hardware
- Although motivated by real-world problems, our goal in CPSC 203 will be a simplified / elegant / abstract version to allow reuse
  - This goal applies to our description of the problem, our algorithmic solution, and our analysis of that algorithm
- In CPSC 203 we will analyze the resource cost of programs
  - Quantify cost in terms of a parameterization of the size of the input
  - Correctness still matters, but some solutions cost too much to be useful
- All of the data in a computer is really a binary (base 2) number
  - Well designed data definitions allow us to represent any kind of information

Today’s Plan…

1. Announcements! (10 mins)
2. Lab 1 (5 mins)
3. Problems of the Week 1 & 2 (5 mins)
4. Review of Python (50 mins)
    - Today: Common Python data types, maybe conditionals
    - Thursday: Loops, functions, objects & error handling

Lab 1
(5 min)

Problems of the Week 1 and 2 (5 mins)

Review of Python (50 mins)