CSE 121 Lesson 17: 2D Arrays and Array Patterns

Matt Wang
Spring 2024


sli.do #cse121-17

Today’s playlist: CSE 121 lecture beats 24sp
Announcements & Reminders

• P3 due **Thursday May 30**\(^{th}\) at 11:59pm

• Fun news: for R7, any assignment can be resubmitted

• Final Exam: **Wednesday, June 5**\(^{th}\) from 2:30-4:20 in KNE 120
  • [Left-Handed Seating Requests Form](#), closes end-of-day Tuesday, May 28\(^{th}\)
  • Next week: focus on hand-writing!
  • (Matt does quick tour of website – prev final exams)
(2D)ays Above Average: `readData()`

How many days' data would you like to input? 3

Next day's data:
- Temperature in Seattle? 44
- Temperature in Tacoma? 40
- Temperature in Bothell? 43

Next day's data:
- Temperature in Seattle? 42
- Temperature in Tacoma? 40
- Temperature in Bothell? 44

Next day's data:
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(2D)ays Above Average: `computeAverages()`

How many days' data would you like to input? 3

The average values for each location were:

- Seattle: 42.667
- Tacoma: 40.333
- Bothell: 43.333

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Average of Seattle temperatures:

\[
\frac{44 + 42 + 42}{3} = 42.667
\]
(PCM) Common Ideas in Array Patterns

- Loop bounds
- Direction of traversal
- Indexing into an array
“Can you make a 2D array where each of the arrays are different lengths, or does it always have to be a square?”
“How can you implement both user inputs and arrays? The tallying made sort of sense to me, but not enough to know what it does.”

“How do deal with 2D arrays patterns?”
“Why aren't 2D arrays stored in a matrix like form if that is typically the desired behavior?”