Devious Debugging – Common Issues

• Make sure to put your **netID** in YourNetID.txt, not your UIN
• The netID in YourNetID.txt must be present upon completing the last step for the hash to generate
JSON Testing

- Tests should cover your code, **not** GSON's parsing functionality
- Tests should cover
  - Everyone: Filtering & Analysis methods
  - Some of you: Any public methods created for visualization / data access
- Think of edge-case inputs to your functions
Filter Function

- Name: Patrick  Courses: [126]
- Name: Jason  Courses: [126, 374]
- Name: Josh  Courses: [126]

filterByModNameFirstLetter("j", arr)

- Name: Jason  Courses: [126, 374]
- Name: Josh  Courses: [126]
Analysis Function

findModMostCoursesTaught(arr)

- Name: Patrick
  Courses: [126]

- Name: Jason
  Courses: [126, 374]

- Name: Josh
  Courses: [126]
Visualization

• Completely up to you
• Charts, word clouds, mosaics, etc.
• For charts, explore JFreeChart
Something... else?

• If you have mad Java skills and want to do something with your JSON, go for it.
• E.g.: taking in a sheet music JSON and playing the notes with MIDI
Looking for interesting JSONs?

https://github.com/jdorfman/awesome-json-datasets
Code Review Digest – Magic Numbers

• Magic numbers: "numbers without obvious meaning"
  • To *always* get the next element
    • arr[i + 1]
  • To get the n-th next element:
    • arr[i + 1]
    • arr[i + 6];
    • arr[i + OFFSET]
• Total numbers of cubes in a Rubik's cube
  • 27
  • 3 * 3 * 3
  • CUBE_LENGTH * CUBE_LENGTH * CUBE_LENGTH
Code Review Digest – final

• final keyword denotes a constant variable
• If class-level variable declared final, the variable cannot be changed across instances of the class
  • Therefore, must also be used with static
  • Google Java Style Guide 5.2.4
Code Review Digest – Conditional Nesting

• Try to flatten out your logic as much as possible
• Splitting into multiple functions can be more readable
• Don't be like this developer and repeat logic; use appropriate control flow
Visit the pinned thread on Campuswire to ask your questions.
If you see a question you'd like to hear the answer to, upvote it.