CPSC 319
Data Structures, Algorithms, and Their Applications

Winter 2024

File I/O Basics:

- Java offers robust tools for reading from and writing to files.
- Key classes include:
    FileReader
    BufferedReader
    FileWriter
    BufferedWriter
- FileReader and FileWriter for character-oriented I/O.
- BufferedReader and BufferedWriter for efficient buffered reading/writing.

Reading from a File:

- Use FileReader or BufferedReader to read character data.

- readLine() in BufferedReader reads one line at a time.

- Handle exceptions using try-catch blocks.

Writing to a File:

- Use FileWriter or BufferedWriter to write character data.

- write() and newLine() methods for writing content.

- Ensure proper exception handling.

Exception Handling:

- Handle IOException for potential file-related errors.

- Gracefully manage exceptions to prevent application crashes.

Sample Question 1:

- Write a Java code that reads an odd positive integer n from "input_diamond.txt" and writes a diamond pattern with size n into "output_diamond.txt" using the * character.

- Test case:

  n = 3 ->

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