601.220 Intermediate Programming

Spring 2023, Day 36 (April 21st)

Today's agenda

- Exercise 35 review
- Work on final project

Reminders/Announcements

- Final project due by 11pm on **Friday, April 28th**

Exercise 35 review

Checking whether file was opened successfully in `readFile` function:

```cpp
std::ifstream fin(filename);
if (!fin.is_open()) {
  throw std::ios_base::failure("could not open file");
}
```

Exercise 35 review

Handling the exception in `main`:

```cpp
std::vector<int> numbers;
try {
  numbers = readFile(argv[1]);
  // ...code to print out the values in the vector...
  return 0;
} catch (std::ios_base::failure &ex) {
  std::cerr << "Error: " << ex.what() << "\n";
  return 1;
}
```
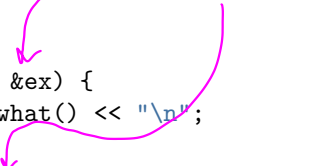
Exercise 35 review

Seeing what happens when `readFile` reads non-integer data:

```
$ ./exceptionExercise nonIntData.txt
Error: File contains non-integer data!
```

Handling `std::invalid_argument` in main:

catch by reference

```cpp
try {
  // code calling readFile
} catch (std::ios_base::failure &ex) {
  std::cerr << "Error: " << ex.what() << "\n";
  return 1;
} catch (std::invalid_argument &ex) {// <-- another catch block
  std::cerr << "Error: " << ex.what() << "\n";
  return 1;
}
```

Work on final project

Let us know if you have any questions!

Notes

Notes

Notes

Notes

Notes