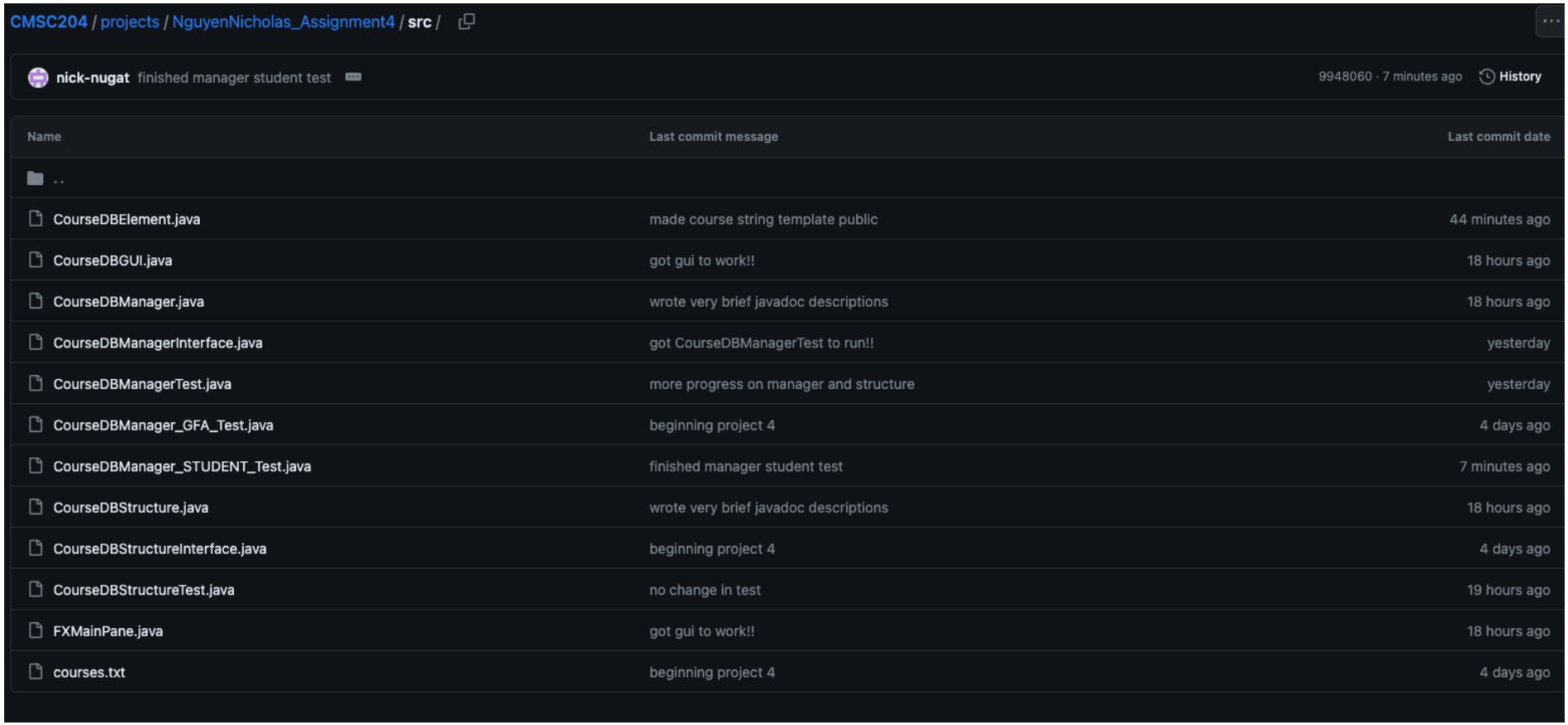
Final Assignment 4 Design

- Nicholas Nguyen
- CMSC204 GitHub Repository

GitHub screenshot



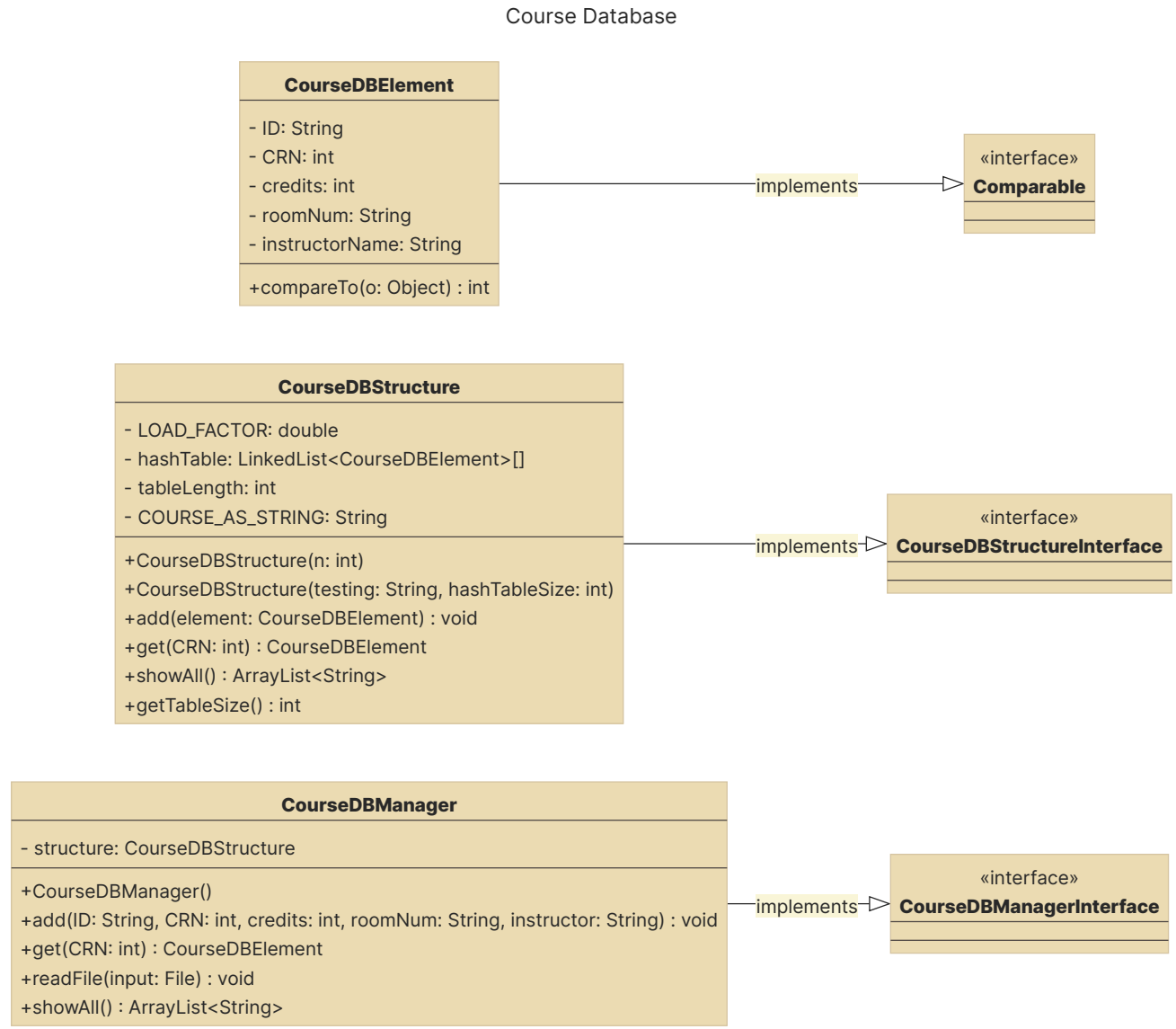
Learning experience

I enjoyed working on this project. I learned a good bit about concepts to use when implementing a database and especially about hashing and more about how it works.

I struggled with getting some tests to pass, as well as knowing what fields, methods, and constructors to have. Since there was no JavaDoc provided to follow like usual, I was a little thrown off, but I eventually got through it and found it to be nicer to learn by reading through the interfaces and figuring out how I may implement the methods listed in them.

I wouldn't really do anything differently next project; I feel like I did pretty well on this one.

UML diagram



Pseudocode

- `CourseDBElement`
  - blueprint for a course with attributes for the course id, crn number, room number, and instructor name
  - getters and setters for each attribute
- `CourseDBStructure`
  - represents a hash table with buckets

    - each hash code is based on the crn since unique to every course
- `CourseDBManager`
    - data manager class that allows users to read courses from a text file
    - uses `CourseDBStructure` quite a bit
        - calls some of its methods
    - can be used to enter data manually