

Exam #3 - CMSC132 (Summer 2022)

Time: The exam will be posted on Tuesday June , 21 at 1 PM (afternoon), and due the same day, Tuesday June , 21, at 2:20 PM (afternoon).

Content: You will design one class with a 1-D array of int and a focus on 3 things:

1. `compareTo` method to make the class be a `Comparable`
See here: <https://docs.oracle.com/en/java/javase/17/docs/api/java.base/java/lang/Comparable.html>
Do not confuse this with `Interface Comparator<T>` which will NOT be on exam 3.
2. `clone` method to make the class be a `Cloneable`
See here: <https://docs.oracle.com/en/java/javase/17/docs/api/java.base/java/lang/Cloneable.html>
Needs to be a deep copy, not a shallow copy.
3. Iterator to make the class be an `Iterable<Integer>`
See here: <https://docs.oracle.com/en/java/javase/17/docs/api/java.base/java/lang/Iterable.html>
You can use either local class or anonymous class syntax to implement this. Make sure to review the concept of initialization blocks as that might help you with the implementation.

To prepare, make sure you have watched and understand concepts & examples covered in all videos posted from the start of the term up to and including W5L1.

I will give you the `toString()` and the constructor. All you have to do to pass the first release test is to simply get the file to compile. You will get 60 points for this!!!!
After this, all you need to do is to earn the other 40 points via passing tests that focus on the methods you have to write.

Details:

- The exam is designed to be completed in 1 hour and 20 min (class time), but there will be a 10-minute grace period. In other words, it will not be marked late until 2:30. Do not wait till 2:30 to turn it in. Submit by 2:20!
- There will be a 15 minute late period. You can turn it in up to 2:45 with a -10 penalty. Use as an absolute last resort. Anything after 2:45 is recorded as a zero.
- Did you install the correct version of Eclipse and course management software on your computer at the start of the semester?
http://www.cs.umd.edu/~nelson/eclipse/install_spr_2022/
- If you don't have this exact Eclipse setup and you are not able to submit the exam, that will not be a valid reason for an extension.
- The exam will be posted similar to a class project. You will write code in an Eclipse project and submit as usual. It will be posted at 1PM on piazza.

- You can only post clarification questions in Piazza on exam day and a CMSC 132 staff member will reply. You should post as a private post and we will make it public or update the FAQ if others can benefit from the answer. As a student, do not answer any piazza post on exam day. Debugging questions, why code is not compiling, why is code not passing a test, are invalid questions to post in Piazza.
- Posting of any kind of code in Piazza (or any other public platform), during the exam period, represents an academic integrity violation and will be reported as such.
- You must work by yourself. Sharing of exam solutions represents an academic integrity violation and will be reported as such. Submissions can be checked with cheating detection software.
- You can use class resources (lecture notes, lecture/lab examples, videos, etc.), but no other resources (e.g., code from the web).
- All submissions must be done via the submit server (no e-mail). The highest scoring submission on the submit server will be downloaded for manual TA grading purposes (you can submit as many times as you want before the deadline).
- The exam may be graded based on submit server tests (release and secret) and code inspection (e.g. Style, following rules, etc.). The exact rubric will not be available before the exam. Just follow all the rules to avoid point deductions.