**Outline**

**Announcements**

* 2023-02-20: [Review: Optional Session](https://github.com/TT00FE39-3001/lecture-2023-02-20-review)
* 2023-02-27: Lecture 5
* 2023-03-10: Career coaching (OMA)
  + Consider: peer evaluation in social media
  + Remember: Degree first

**Topics**

* [Review](https://github.com/TT00FE39-3001/lecture4/blob/main/review.md)
* Divide & Conquer
  + Merge Sort
  + Quick sort
* Hash Tables
  + Space vs Time
  + Collision resolution
* Linked lists

**This Week in Points**

* Group Activities (Max 9 points)
* Homework (Max 9 points)
* Peer reviews (Max 7 points)

**Part 1: Divide & Conquer**

* [Merge Sort](https://opendsa-server.cs.vt.edu/OpenDSA/Books/Everything/html/Mergesort.html)
* [Quick sort](https://opendsa-server.cs.vt.edu/OpenDSA/Books/Everything/html/Quicksort.html)
* [Activity 1](https://github.com/TT00FE39-3001/lecture4/blob/main/activity1)

**Part 2: Hash Tables**

* Space vs Time
* Hash Tables
* Collision resolution
  + [Probability of a collision](https://opendsa-server.cs.vt.edu/ODSA/StandaloneModules/20200825204059/html/HashFunc.html)
  + [Open Hashing](https://opendsa-server.cs.vt.edu/OpenDSA/Books/Everything/html/OpenHash.html)
  + [Bucket Hashing](https://opendsa-server.cs.vt.edu/OpenDSA/Books/Everything/html/BucketHash.html)
* [Activity 2](https://github.com/TT00FE39-3001/lecture4/blob/main/activity2)

**Part 3: Linked Lists & Asymptotic Analysis**

* [Linked Lists](https://www.softwaretestinghelp.com/linked-list/)
* [Asymptotic Analysis and Upper Bounds](https://opendsa-server.cs.vt.edu/OpenDSA/Books/Everything/html/AnalAsymptotic.html)
* [Activity 3](https://github.com/TT00FE39-3001/lecture4/blob/main/activity3)