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Hashing

We will continue from where we left off in the last class before the university closure. In particular, we will look at one more static hashing technique - Cuckoo Hashing and three dynamic hashing techniques of different complexity: chained, extendible and linear hashing (not to be confused with linear probe hashing).

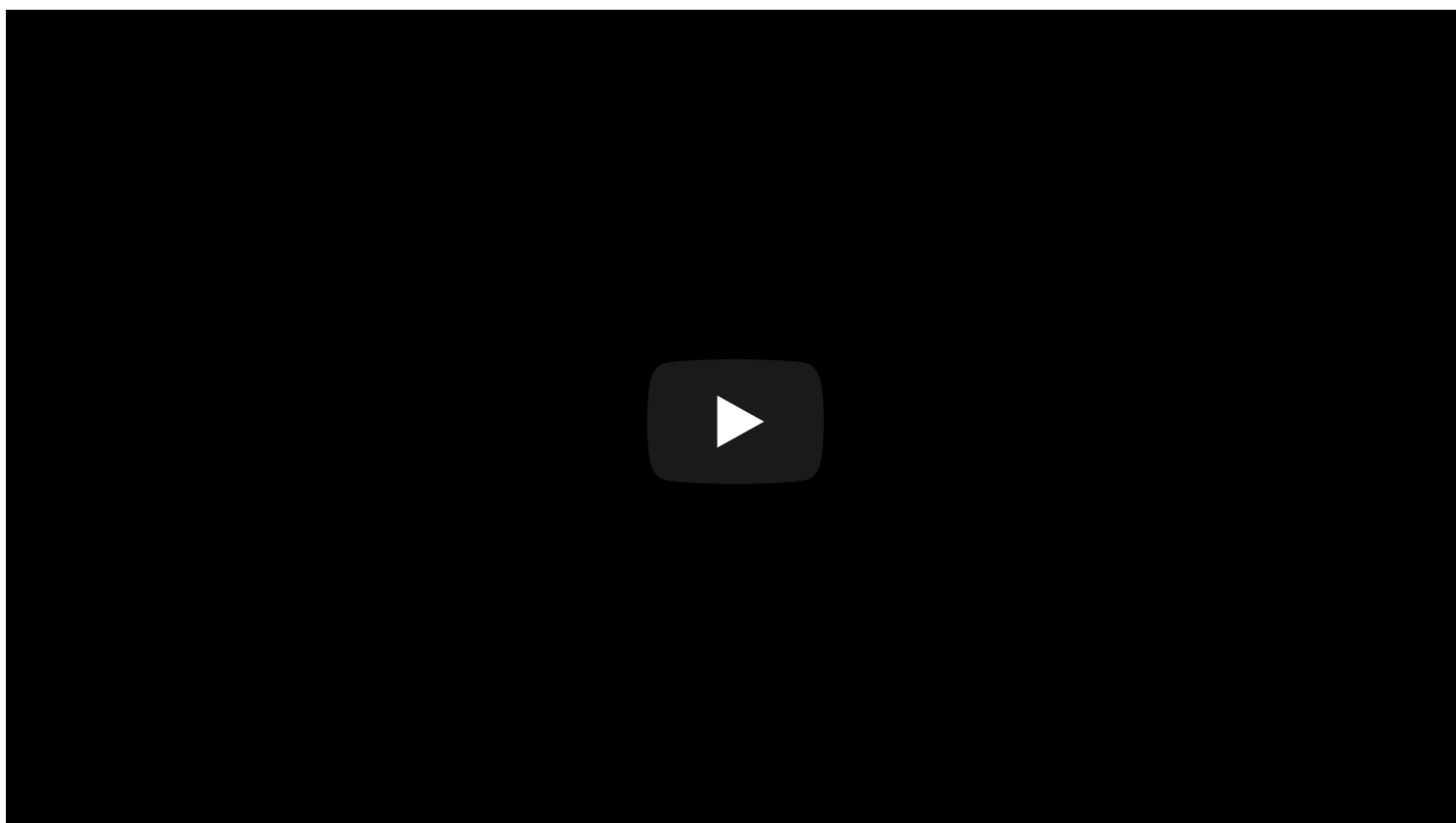
Reading Material: Chapter 11 of Ramakrishnan and Gerhke

As you go through the material, answer all the relevant assessment questions. The deadline for submission of this assessment is Tuesday, March 24 @ 1:00 pm. You can update your answers as often as you want. It is not a timed assessment.

Assessment: There are **3** assessments in GradeScope linked to this lesson: Cuckoo Hashing, Extendible Hashing and Linear Hashing.

Cuckoo Hashing

Watch the video lecture from 43:02 to 47:19



In case you were wondering, the unique name comes from how the hashing scheme mimics the cuckoo chick, which pushes out unhatched eggs or even other chicks from the nest to make room for itself. Here is

how this looks:



Did you watch the above video

- ☐ A. Yes
- ☐ B. No

Submit Answer

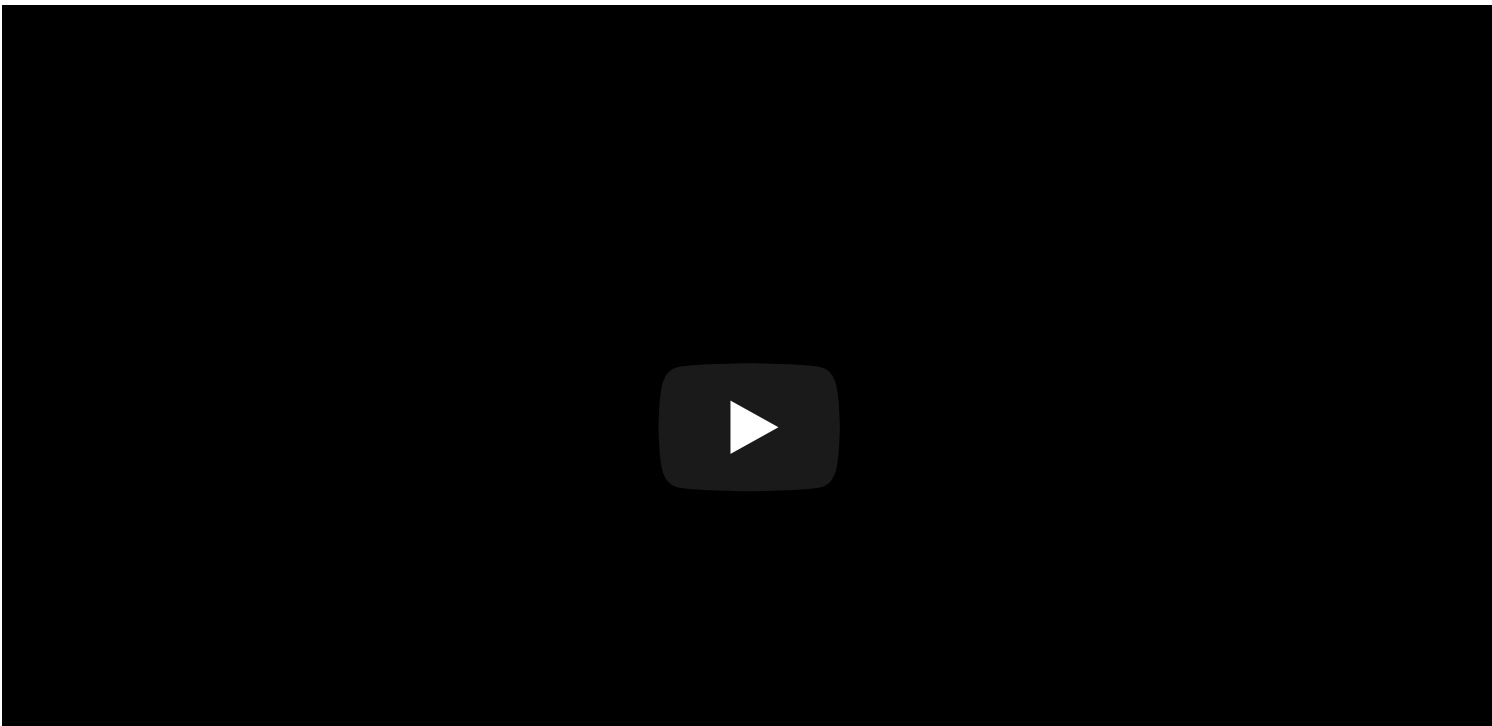
Now answer the Cuckoo Hashing Assessment on GradeScope.

 [Cuckoo Hashing Assessment](#)

Dynamic Hashing Schemes

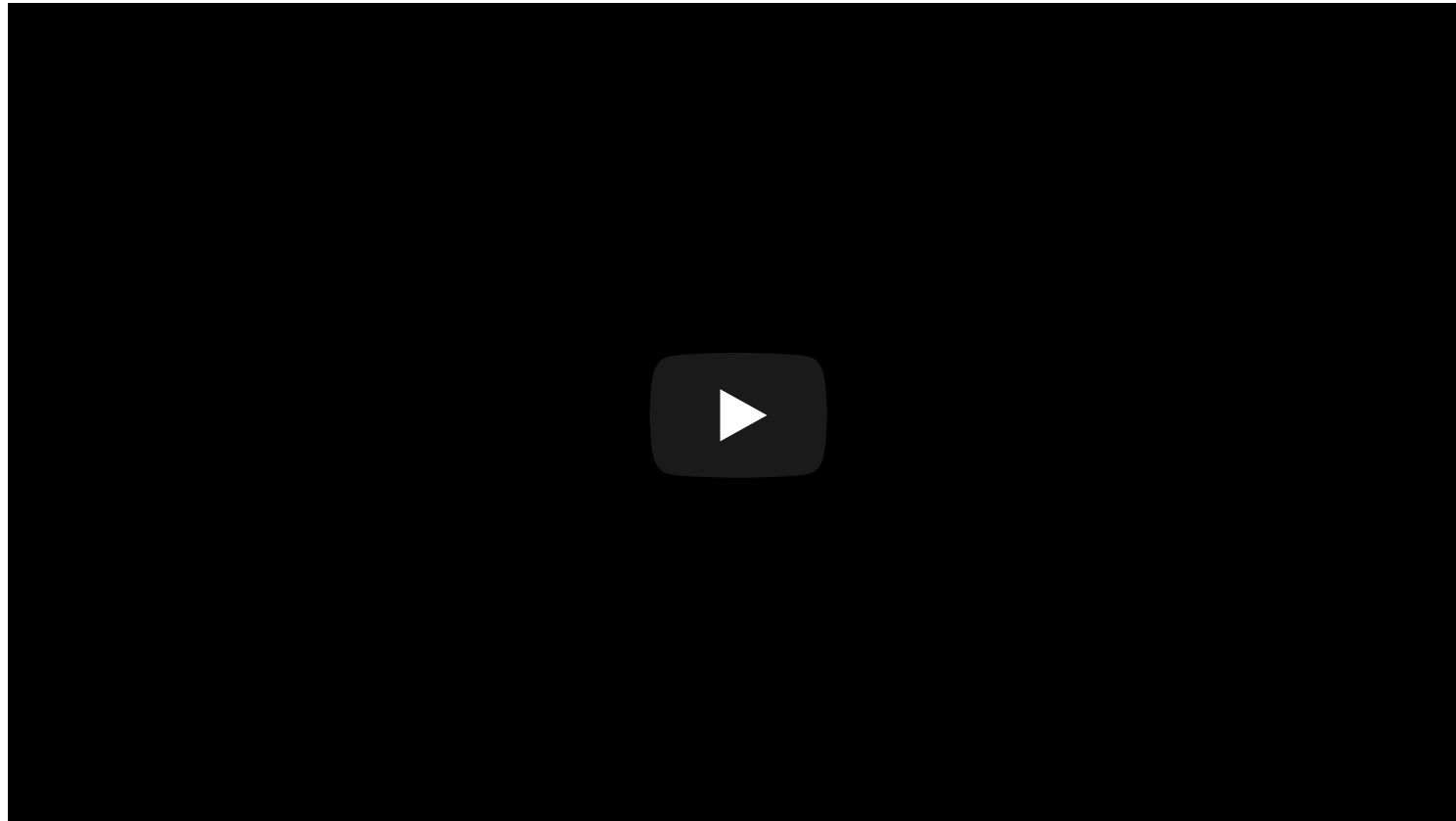
Why we need dynamic hashing?

Watch the video from 47:22 to 48:48



Chained Hashing

Watch the video lecture from 48:50 to 50:18



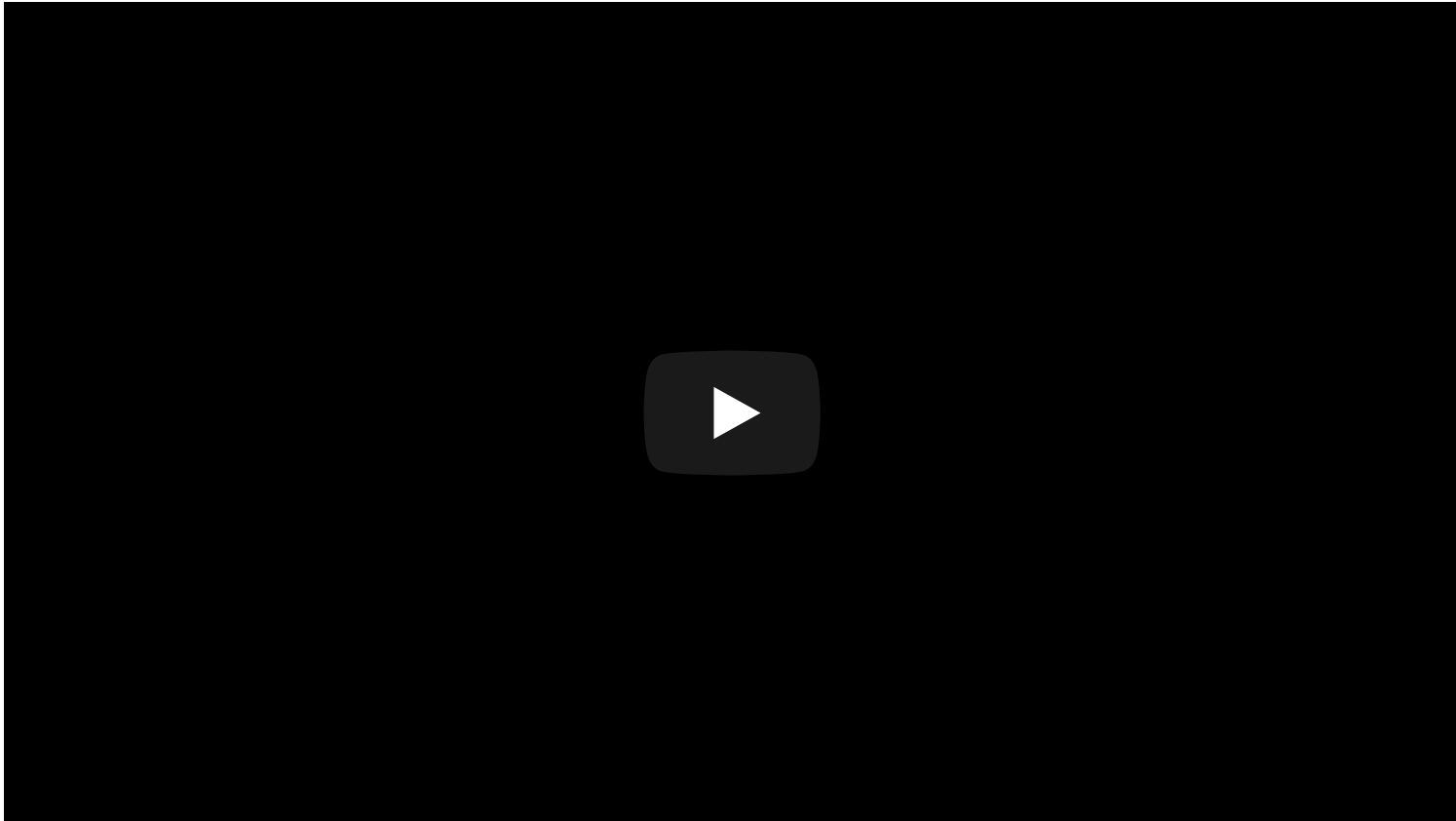
Did you watch the videos above?

- ☐ A. Yes
- ☐ B. No

Submit Answer

Extendible Hashing

Watch the video lecture from 50:38 to 1:00:08



Did you watch the video above?

- ☐ A. Yes
- ☐ B. No

Submit Answer

Now answer the Extendible Hashing Assessment on Grade Scope.

 [Extendible Hashing Assessment](#)

Linear Hashing

Reading Material: Read the following 4-pager to understand how linear hashing works.

Did you read the linear hashing document?

- ☐ A. Yes
- ☐ B. No

Submit Answer

 [Linear Hashing Assessment](#)

Congrats on completing this unit! If you have questions/comments regarding this unit please write a Piazza post.

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