

# CS 4321/5321 Project 4 (Preview)

Fall 2016

Due Tuesday, November 15, 11:59 pm

This project is out of 60 points and counts for 20% of your grade.

## 1 Goals and important points

In Project 4, you will extend your SQL interpreter to support B+-tree indexing.

- you will write code to build B+-tree indexes for your database. Since your database is static, you do not need to implement tree insert/delete functionality. Instead you will focus on:
  - implementing an algorithm to construct a tree via *bulk loading*
  - implementing functionality to serialize/deserialize a tree from a file
- you will use B+-tree indexes to help with relational algebra selections, and do some performance benchmarking to see whether using indexes speeds up your queries.

You will still support the same subset of SQL as in previous projects, and you should still follow the join order implied by the `FROM` clause when you build your plan.

Detailed instructions for Project 4 will be available later.