

Homework 7
Due: Tuesday, October 18 at 11:59pm

Prepare your answers using either a word processor or by neatly sketching diagrams and then scanning them into a single digital document (e.g., scan them into a word processing document and then create a pdf file of the word processing document).

1. 14.15. Assume that this appointments relation not only contains information about the appointments, but is also the only repository of information about the dentists in the practice, and the patients in the practice. Assume that surgeries has another relation which is referenced by the surgery number and contains information about the surgeries.
2. Look at the hotel database shown in the exercises at the end of Chapter 4 and think about the types of queries that might be made on such a database. Feel free to examine the queries over that database shown in the exercises at the end of Chapter 6. However, I don't think many of the queries in those exercises would be frequently executed, and hence it would be hard to justify an index based on many of those queries. Conversely, I think there are many potential high-frequency queries that have been left out of those exercises (e.g., show me the rooms checking out today at the hotel I'm managing). Based on the queries you choose, and what was discussed in class about physical database design, describe what indices you would choose to create for each of the four relations and justify each index by indicating the queries that might make use of these indices.