

Lab: Hashing, part 2

1. Download file 'hashing-2-worksheet.pdf' from our iLearn page (or get a paper copy).
2. The goal of the assignment is to do some insert and lookup operations on a database, using hash file organization.
3. The right of the page shows 4 file blocks, each of which can hold 3 records.
4. The bottom of the page shows the output of the hashing function. Open addressing is used, so there is a primary hash function output, plus additional outputs if the block associated with the first hash output is full.
5. Your assignment is to perform the DB operations listed on the top left of the page. The operations are for records in a "student" table, and the search key is the student ID.
6. The first operation is an insert, and this operation has been done for you. In this first insert, the search key is 2162, the hash function gives output 1 (see table at bottom), so the record to be inserted is put into block 1.
7. For insert operations, enter the records in the correct block. Remember, only three records per block.
8. For lookup operations, use the hash function on the search key to find the record.
9. If you finish the list of operations, do some web research on the subject of "dynamic hashing".