Homework Project 4

Given 11/22/2017, Due 12/10/2017

The aim of this homework is to implement a hash table with overflow lists, using a universal family of hash functions, the bit-xor function described in the class. The keys are supposed to be 32-bit unsigned integers, the values are integers.

- `hashtable_t * create_hash(int size)` creates the parameters for a hash function (random choice) and allocates the hash table. The size of the created hash table is the power of two that is next larger than the given size.
- `void insert_hash( hashtable_t * hp, unsigned int key, int value)` enters the (key, value) pair in the hash table
- `void delete_hash( hashtable_t * hp, unsigned int key)` deletes the (key, value) pair in the hash table
- `int find_hash( hashtable_t * hp, unsigned int key)` returns the value associated with key, if it exists, or 0 else.

Do not use code from the web, or share code with other students. Your homework submission must be your work.