Develop a class to hold details about a list of student, so that each student can be accessed in close to O(1) time. For now, the only info about each student is their id number (an integer)

1. Declare a HashTable class. The Hash Table will use the chaining method to deal with hash collisions. So each array position is a bucket. The bucket is a chained list of the student numbers which hash to this array index.

2. Write a BucketNode class. Each object of this class will hold a student number and a pointer to the next BucketNode. The constructor will take a student number (integer) as an argument, and will set its next pointer to NULL.

3. Write a constructor for the HashTable which Initialises the array so that it is empty.

4. Write a method to hash a student id (integer) into the array

5. Write a method to find if a particular student exists in the array

6. Write a main program to test your hashing algorithm