Topic: Double Hashing using the open address

In Double hash, we use two hash functions with open addressing technique
A CPP file is provided
The main function is inserting integer values in the hashtable. These values, also act as a key to the hash functions

You need to complete, hash1, hash2 and insert functions.

The algorithm to insert goes like below:

First check if hashtable is full, there is a function in CPP file written to check that. If it is full then print an appropriate message on the screen and return

1) Take a key and pass it to hash-function 1
2) We see if the index returned by hash-function 1 is occupied in array
3) If it is not occupied(array[index]==-1), we put the value there
4) Else If it is occupied, we find the new index according to the following
   new_index = ( hash1(key) + i*hash2(key) )%TABLE_SIZE
   Where i is initialized to 1
5) Check if the value at the new_index is -1. If it is not -1 keep incrementing variable i and find new_index till array[new_index] is -1. Then put the value in this position

hash1 returns
key%TABLE_SIZE

hash2 returns
PRIME-(key%PRIME)
where PRIME is a prime number. You can fix this number.