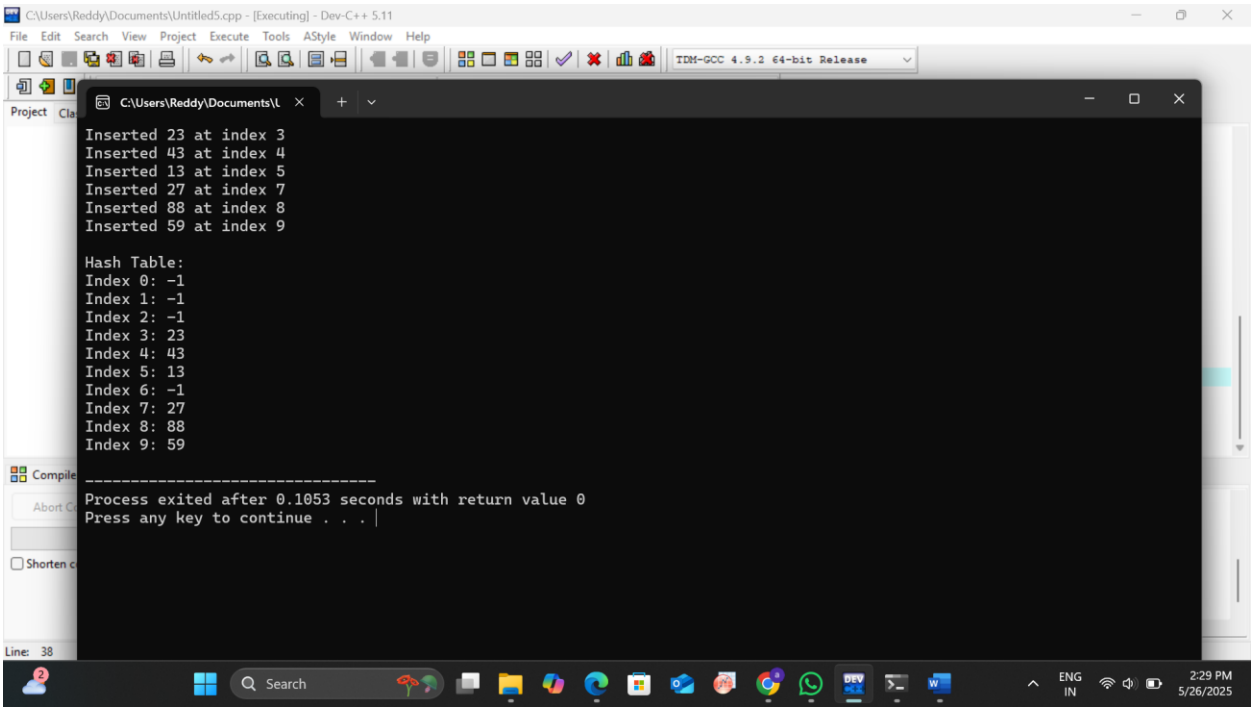
Experiment 15

Code

```
#include <stdio.h>
#define SIZE 10
int hashTable[SIZE];
void init() {
   for (int i = 0; i < SIZE; i++)
      hashTable[i] = -1;
}
int hash(int key) {
   return key % SIZE;
}
void insert(int key) {
   int index = hash(key);
   int i = 0;
   while (hashTable[(index + i) % SIZE] != -1) {
      i++;
      if (i == SIZE) {
         printf("Hash table is full!\n");
         return;
      }
   }
   hashTable[(index + i) % SIZE] = key;
   printf("Inserted %d at index %d\n", key, (index + i) % SIZE);
}
void display() {
   printf("\nHash Table:\n");
   for (int i = 0; i < SIZE; i++)
      printf("Index %d: %d\n", i, hashTable[i]);
```

```
}
int main() {
    int keys[] = {23, 43, 13, 27, 88, 59};
    int n = sizeof(keys) / sizeof(keys[0]);
    init();
    for (int i = 0; i < n; i++)
        insert(keys[i]);
    display();
    return 0;
}
```