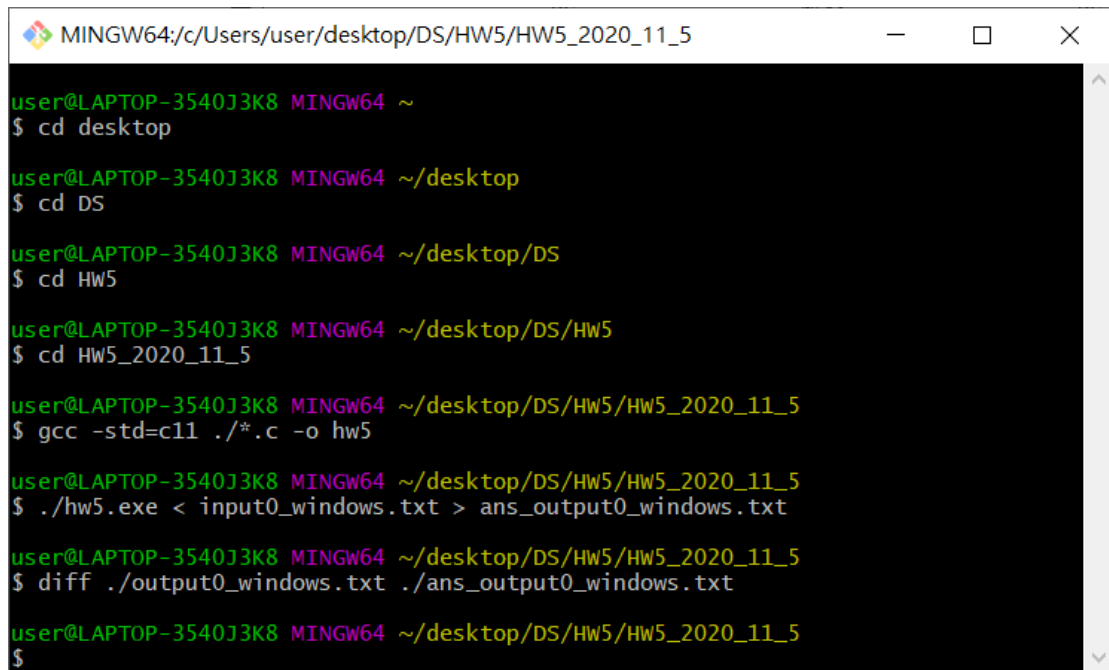


Result Screenshots



```
MINGW64:/c:/Users/user/desktop/DS/HW5/HW5_2020_11_5

user@LAPTOP-3540J3K8 MINGW64 ~
$ cd desktop

user@LAPTOP-3540J3K8 MINGW64 ~/desktop
$ cd DS

user@LAPTOP-3540J3K8 MINGW64 ~/desktop/DS
$ cd HW5

user@LAPTOP-3540J3K8 MINGW64 ~/desktop/DS/HW5
$ cd HW5_2020_11_5

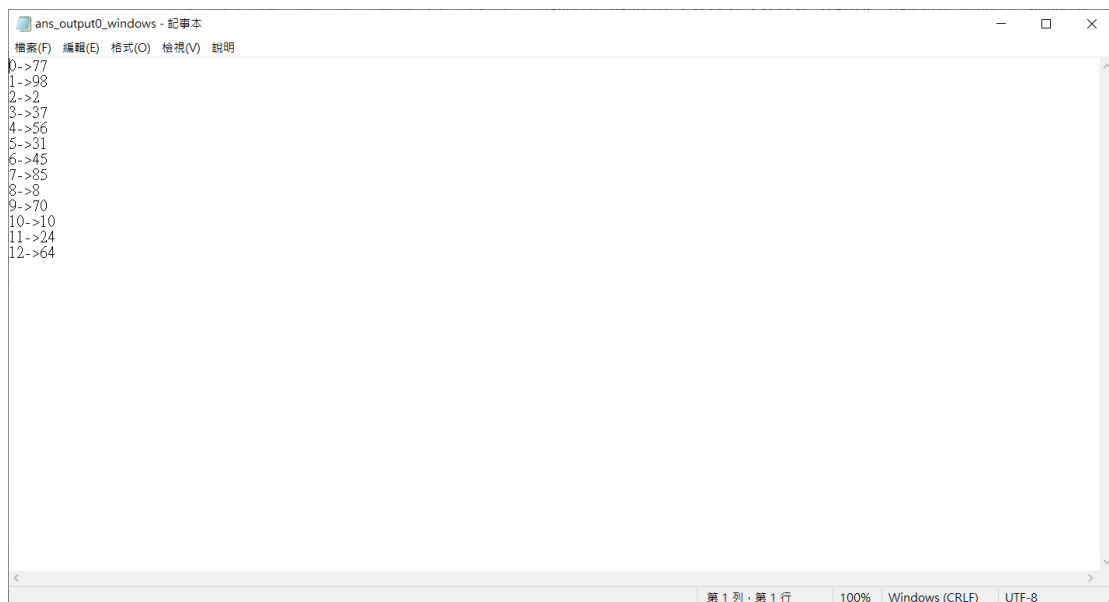
user@LAPTOP-3540J3K8 MINGW64 ~/desktop/DS/HW5/HW5_2020_11_5
$ gcc -std=c11 ./*.c -o hw5

user@LAPTOP-3540J3K8 MINGW64 ~/desktop/DS/HW5/HW5_2020_11_5
$ ./hw5.exe < input0_windows.txt > ans_output0_windows.txt

user@LAPTOP-3540J3K8 MINGW64 ~/desktop/DS/HW5/HW5_2020_11_5
$ diff ./output0_windows.txt ./ans_output0_windows.txt

user@LAPTOP-3540J3K8 MINGW64 ~/desktop/DS/HW5/HW5_2020_11_5
$
```

編譯與執行指令截圖

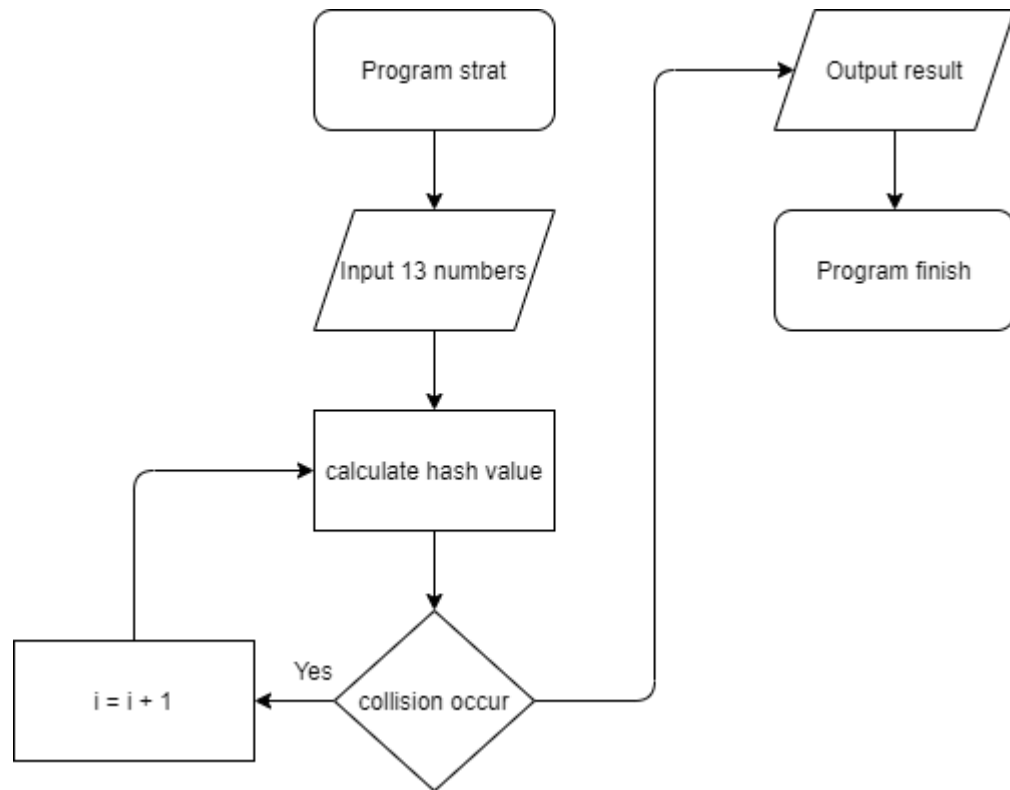


```
ans_output0_windows - 記事本
檔案(F) 編輯(E) 格式(O) 檢視(V) 說明
0->77
1->98
2->2
3->37
4->56
5->21
6->45
7->85
8->8
9->70
10->10
11->24
12->64

第 1 列 · 第 1 行 100% Windows (CRLF) UTF-8
```

ans_output0_windows.txt 截圖

Program Architecture



Program Functions

int hash1(int key);

//hash function

Parameters:

int key: The key to hash

Return value:

Hash value

int hash2(int key);

//hash function

Parameters:

int key: The key to hash

Return value:

Hash value

int hash (int key);

//hash function calculate by two individual hash functions

Parameters:

int key: The key to hash

Return value:

Hash value

Program design

依照題目要求寫好 3 個 hash function

每次 hash 時判斷是否發生 collision

如果有發生的話 就 $i = i + 1$ 並且重新計算 hash 值

Operating System

Windows10 家用版

Compiler

gcc version 8.2.0 (MinGW.org GCC-8.2.0-3)

Compile

```
gcc -std=c11 ./*.c -o hw5
```

Run

```
./hw5.exe < input0_windows.txt > ans_output0_windows.txt
```