**Computer Organization 2018**

**HOMEWORK 4**

系級: 109 資訊 學號: F74056247 姓名: 曾大瑋

**問題(Question)**

Q1. How do you know the number of block from input file?

block數=cache大小/block大小

Q2. How do you know how many set in this cache?

block數=cache大小/block大小

如果是direct map則set數量=block數

If 4-way set associative 則set數量=block數/4

If fully associative則set數量=1

Q3. How do you know the bits of the width of the Tag ?

Offset=block大小(Byte)取log2

Index=block數取log2

Tag長度為32-Offset-Inex

Q4. Briefly describe your data structure of your cache.

使用C++ STD的map+自訂class來存vaild bit& offset

map<long,自訂class>,將instruction % block size 後 用map的.find找尋是否出現過

若出現過則hit反之則miss

Q5. Briefly describe your algorithm of the implementation of LRU.

BruteForce 跑過整個map找出最少存取的然後再踢掉

**心得(Report)**

(請寫下完成本次作業的心得、學到哪些東西、困難點的部分。)

(Please write your learned lesson and conclusion, and difficult point.)

感覺code實作應該是不難,可是不懂set,block關係導致不會寫,所以只有trace1是對的,trace3差一點而trace2不會寫