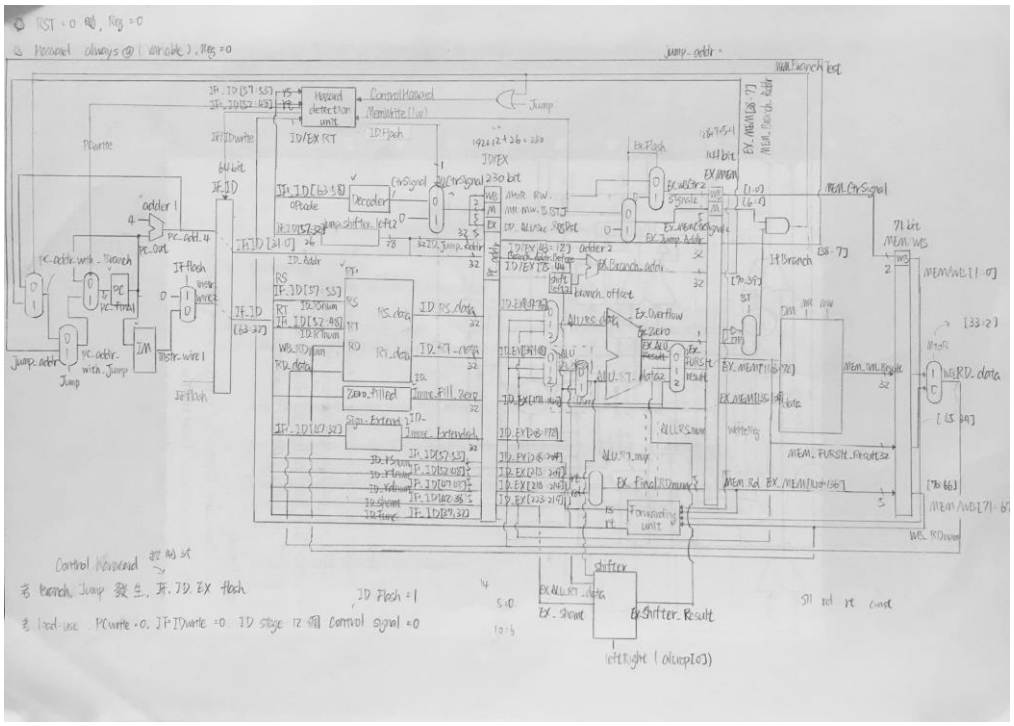
Computer Organization

Architecture diagrams:



Hardware module analysis:

Data hazard:EX stage 若是 LW 指令且 EX $RT == ID $RS || ID $RT，Program counter 及 IF/ID Register 不更新

Forwarding: data dependence 時將 MEM stage 或 WB stage 結果 Forward 回去 EX stage

Control hazard:發生 Branch 或 Jump 時將 IF/ID、ID/EX、EX/MEM Register Flash 掉。

Finished part:

Data hazard

Forwarding

Control hazard

Problems you met and solutions:

無

Summary:

無