Database HW2 Report

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**A.**

1. **(3%) What the difference between type “char” and type “varchar”?**

Ans : “char” is fixed length while “varchar” is dynamic length. For example, we declare char(100) and varchar(100), and assign the string “Brian”.The “char” type will hold 100bytes memory to store it, but “varchar” only use 5+2 = 7 to do this.

2. **(3%) Type “boolean” would be stored as which type in MySQL?**

Ans : tinyint(1)

3.**(4%) How many bytes it should take for “tinyint”, “smallint”, “mediumint”, “int”? (e.g. 8 bytes for “bigint”)**

Ans : “tinyint” 1byte, “smallint” 2bytes, “mediumint” 3 bytes, “int” 4bytes

**And what’s the range they can express? (e.g. from -1000 to 1000)**

Ans: “tinyint” from -128 to 127

“smallint” from -32768 to 32767

“mediumint” from -8388608 to 8388607

“int” from -2147483648 to 4294967295

**4.(5%) What do you think about this table schema? If you can change this table architecture, how would you modify it and why?**

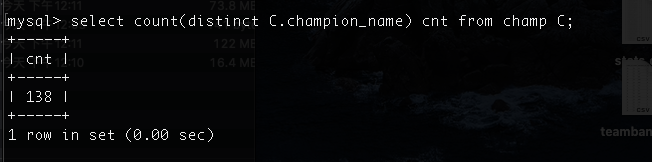
Ans : The attribute “version” in match\_info is annoying because “version” is a build-in word for SQL syntax. I will modify it to “\_version”.

Ans: I think that the number of kills,deaths, … ,pentakills can’t be NULL, it. can be default as 0.

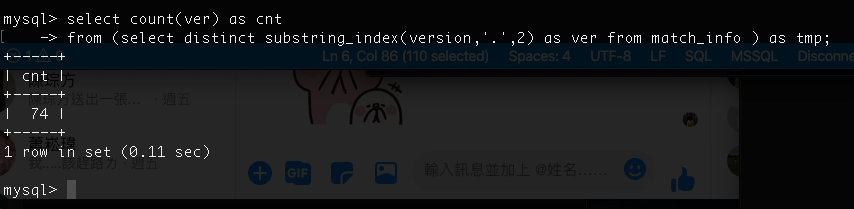
Ans: stat 初看像是用來記錄player\_id的生涯總覽的感覺，但發現有win這個boolean 所以應該是單場的表現。可是我卻沒看到這個stat有match\_id。再來發現player\_id是primary\_key ,participant 的player\_id也是primary key，那我現在就知道player\_id不會重複，即使在不同場match也不會出現兩個一樣的player\_id。這個設計就很奇怪了，因為直覺認為player\_id就是帳號，而一個帳號不可能只玩一場。所以我覺得應該要成立一個table(假設叫game\_record)紀錄帳號,match\_id,version,duration,win,item1,item2..longgesttimespentliving,doublekills…firstblood

用game\_record去取代match\_id

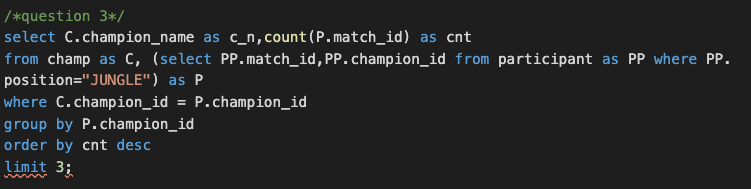
**B.**

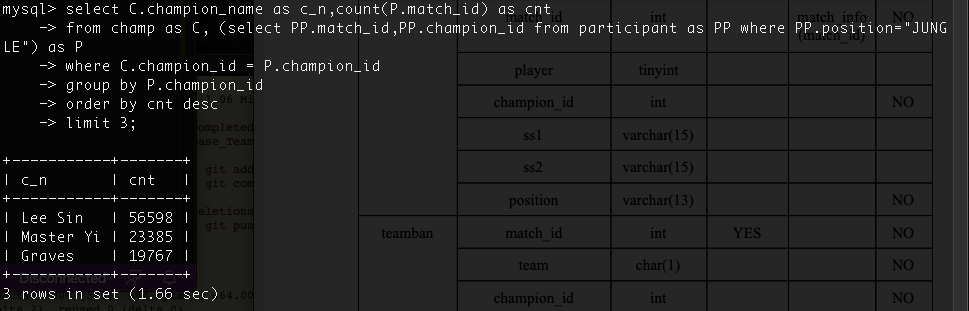
1. 

2.

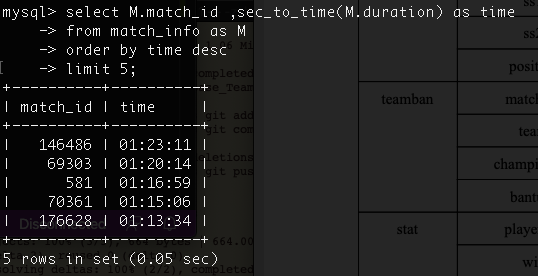


3.

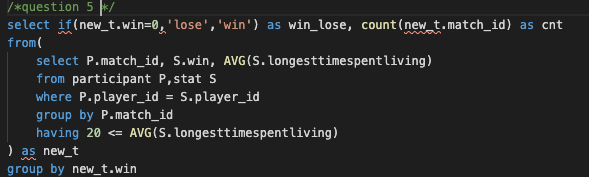


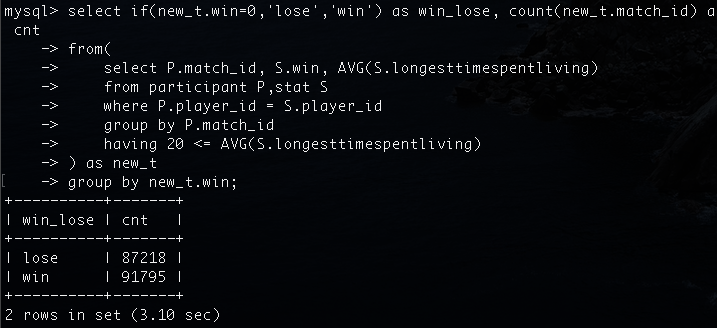


4.



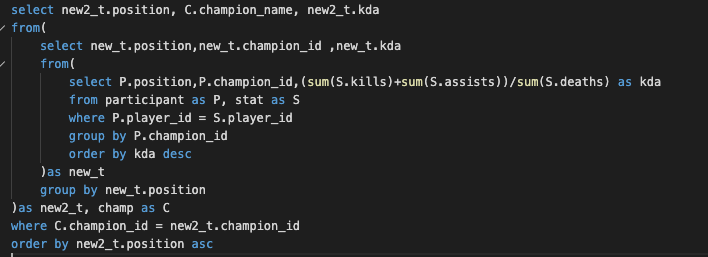
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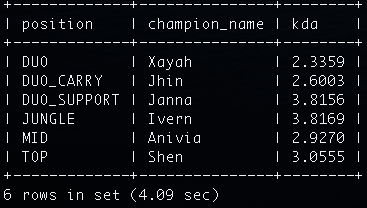




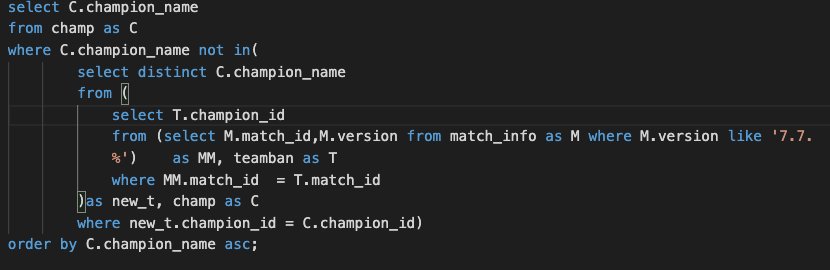
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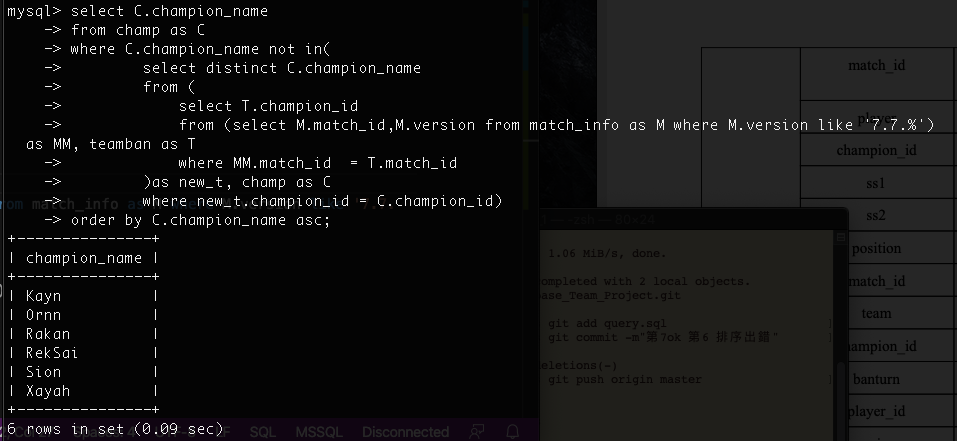
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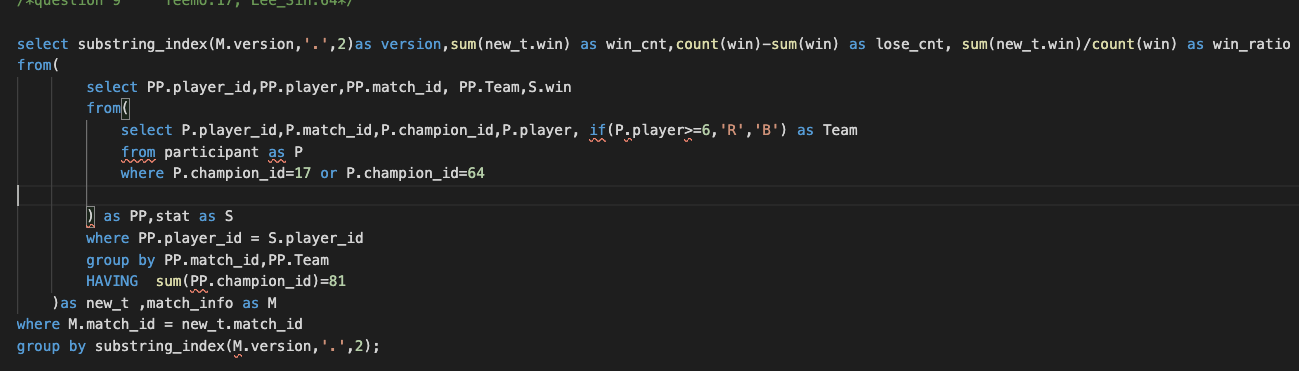


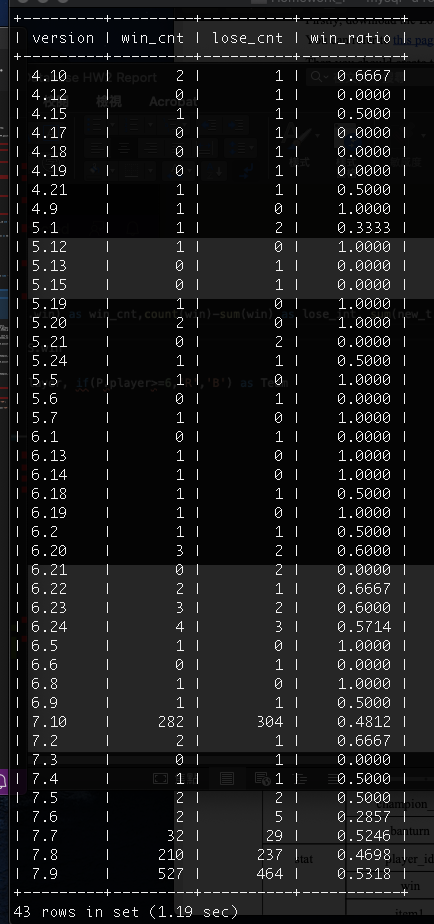
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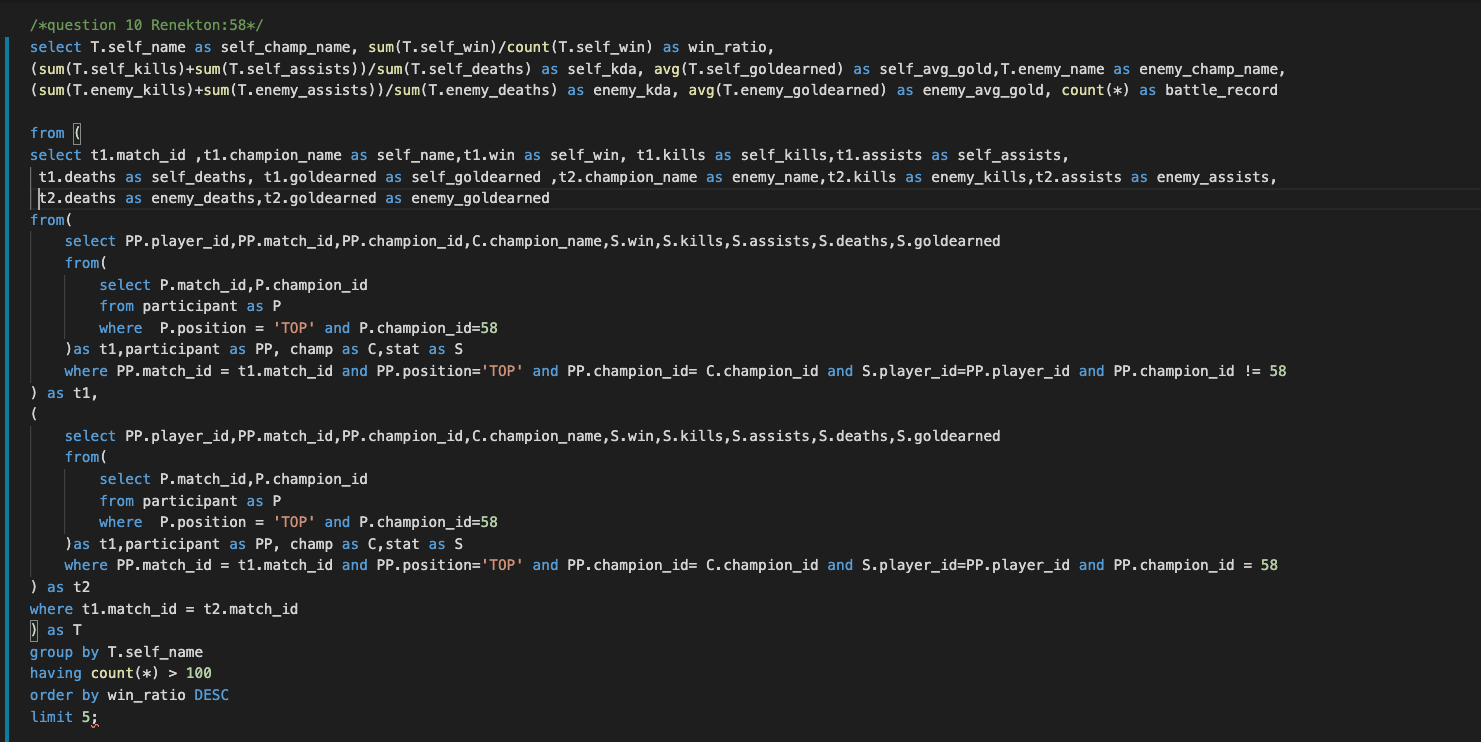


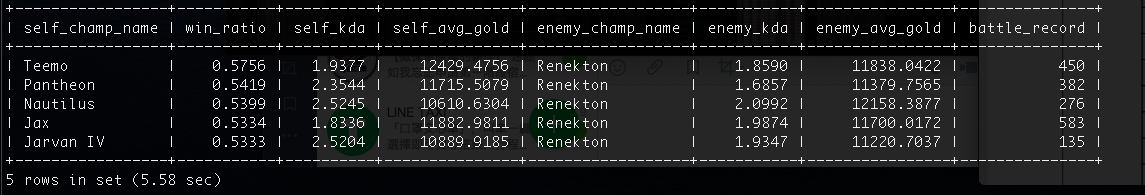
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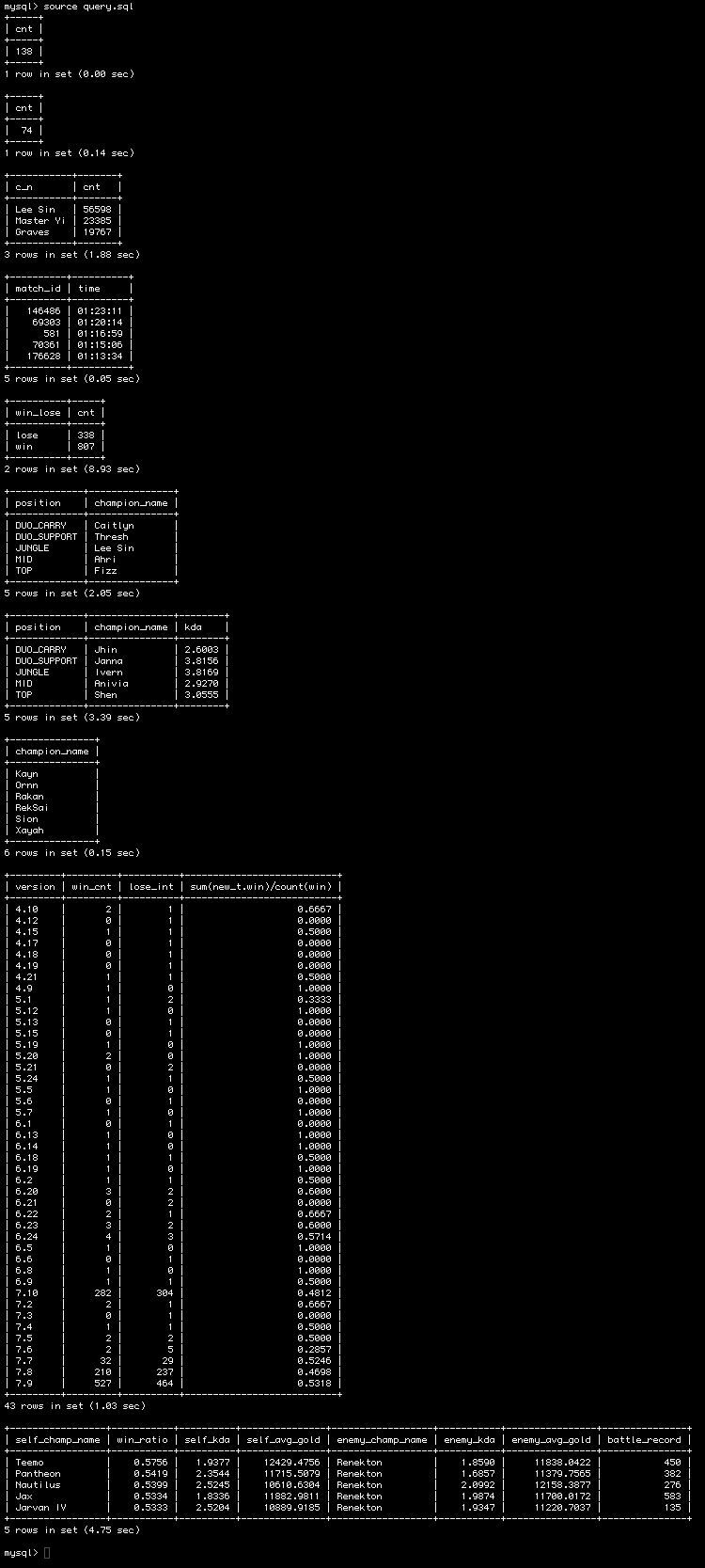


10.

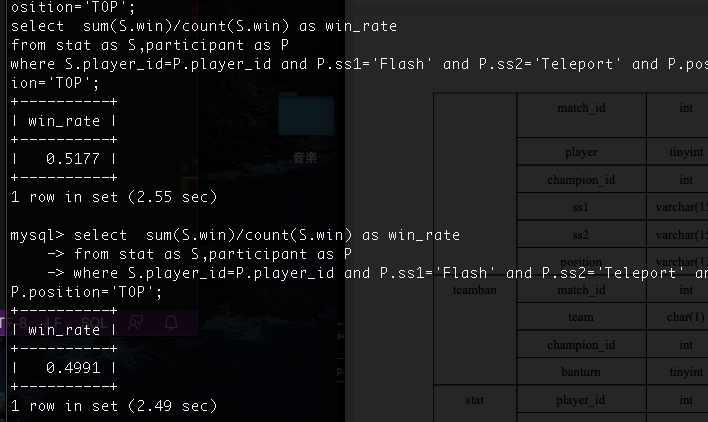




1~10 總截圖



11.



數據顯示：使用閃現+點燃時的勝率比較高，為0.5177 ，閃現＋傳送為0.4991