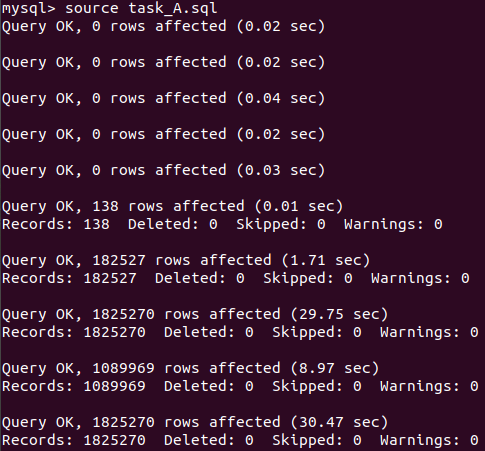
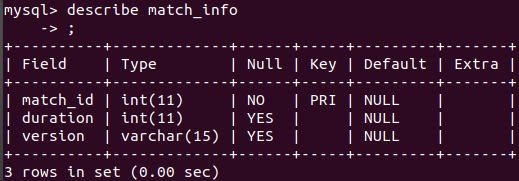
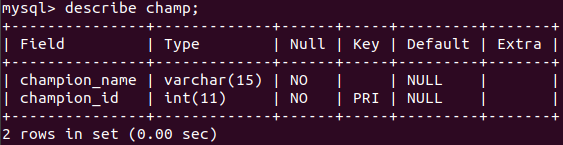
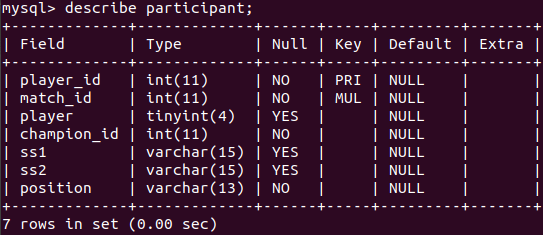
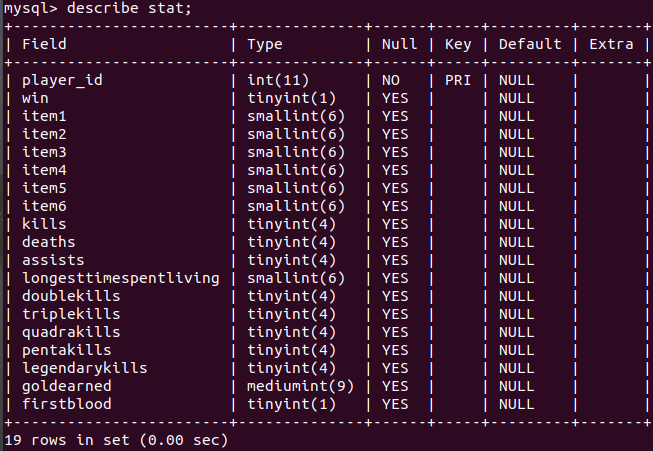
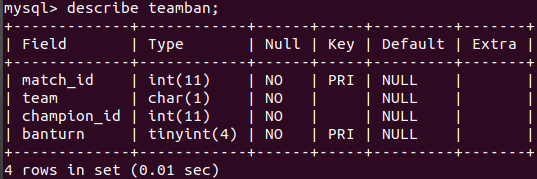
**Database homework 1 report**

**Task A:**

1. Task\_A.sql transcript:
2. ‘Describe’ command for each table:
3. Questions:
4. **What the difference between type “char” and type “varchar”?**

char: 固定大小的字符，預設大小是一，可以透過後方加上括號來指定大小。可以存比輸入預設的字符長度還小的字串，但使用的空間仍會是原本預設，會浪費空間。

varchar: 動態方式儲存自符，跟char幾乎相同，但在儲存較原本預設斥串長度還小的字串時，只會使用本身字串所需的記憶體，較省空間。

1. **Type “boolean” would be stored as which type in MySQL?**

Tinyint(1) (從stat裡的firstblood可以看到)

1. **How many bytes it should take for “tinyint”, “smallint”, “mediumint”, “int”? (e.g. 8 bytes for “bigint”) And what’s the range they can express? (e.g. from -1000 to 1000)**

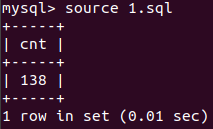
|  |  |  |
| --- | --- | --- |
| Type | # of byte | Range |
| tinyint | 1 | 0~255 |
| smallint | 2 | -8,388,608~ 8,388,607 |
| mediumint | 3 | -32,768~ 32,767 |
| int | 4 | -2,147,483,648~ 2,147,483,647 |

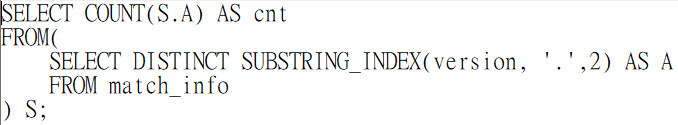
1. **What do you think about this table schema? If you can change this table architecture, how would you modify it and why?**
2. 基本上在做下面的題目時就會發現有做到多次的champion\_name跟champion\_id互相配對的地方，這樣會造成很大的麻煩，所以應該把participant裡面直接加上champion\_name，會方便很多。

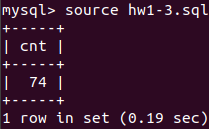
**Task C:**

1. SQL Screenshot:

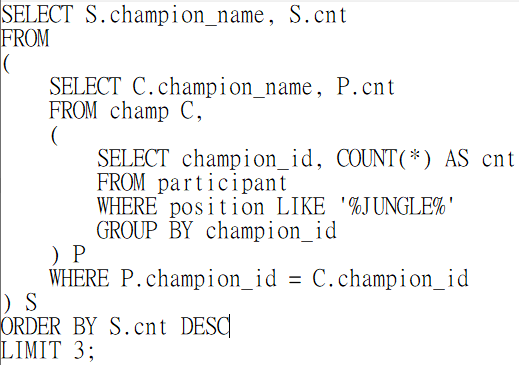
Query result:

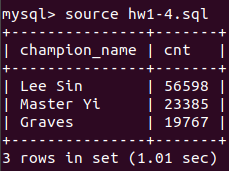


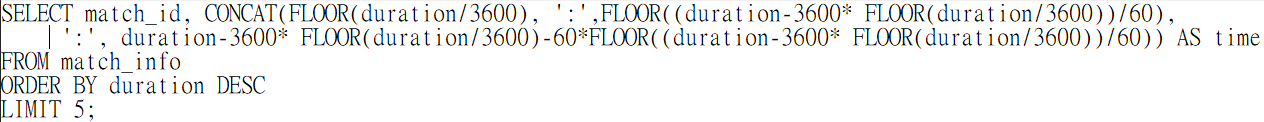
1. SQL Screenshot:

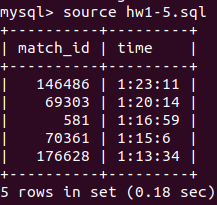
Query result:

1. SQL Screenshot:

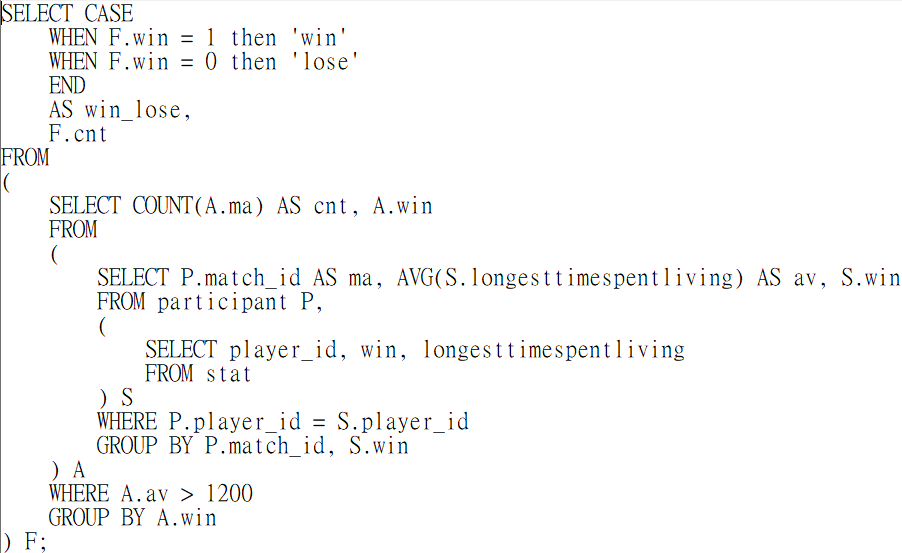


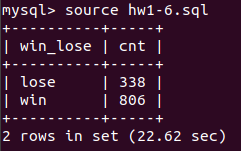
Query result:

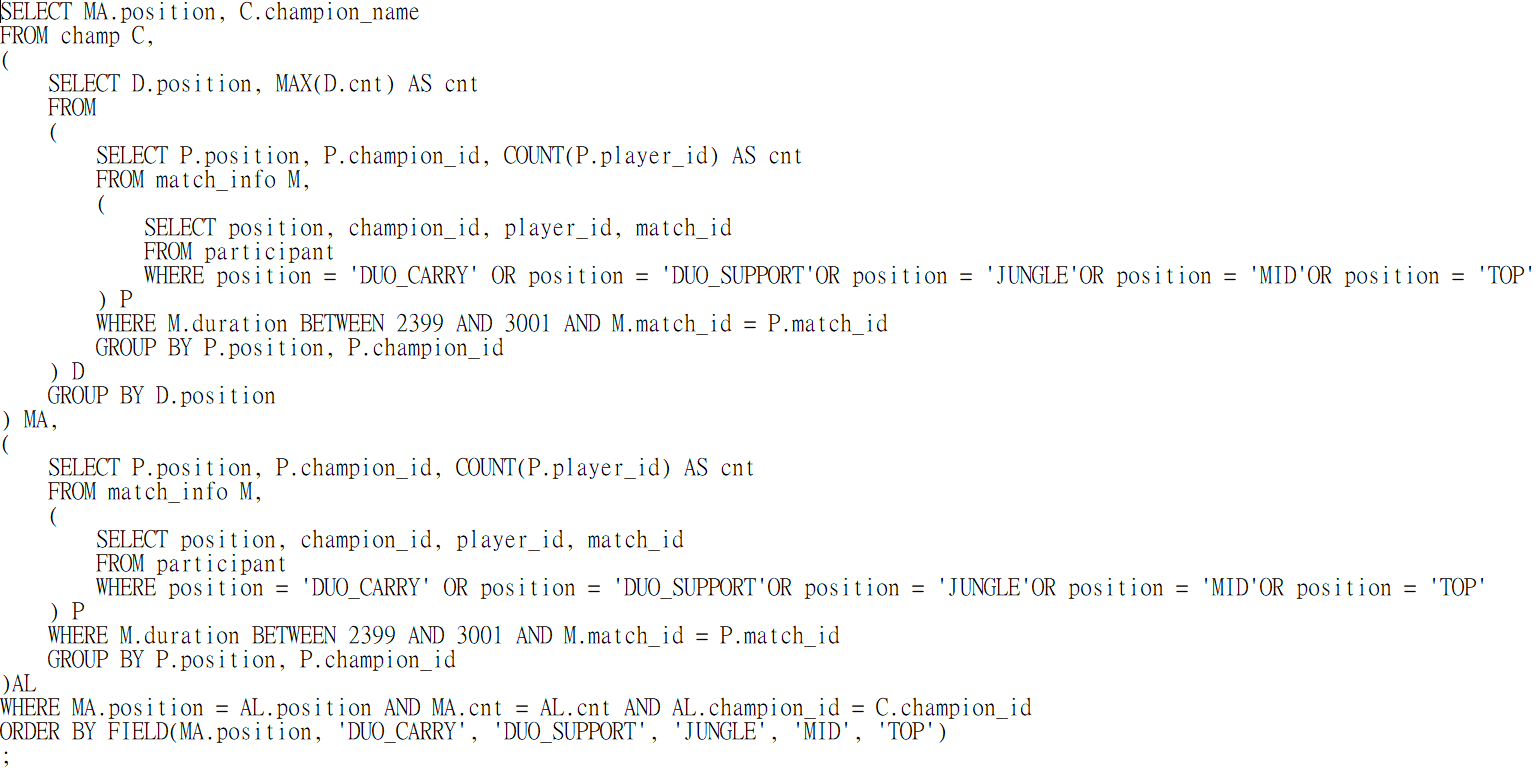
1. SQL Screenshot:

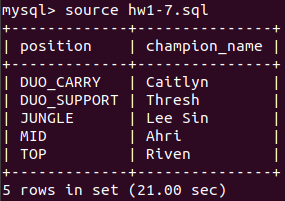
Query result:

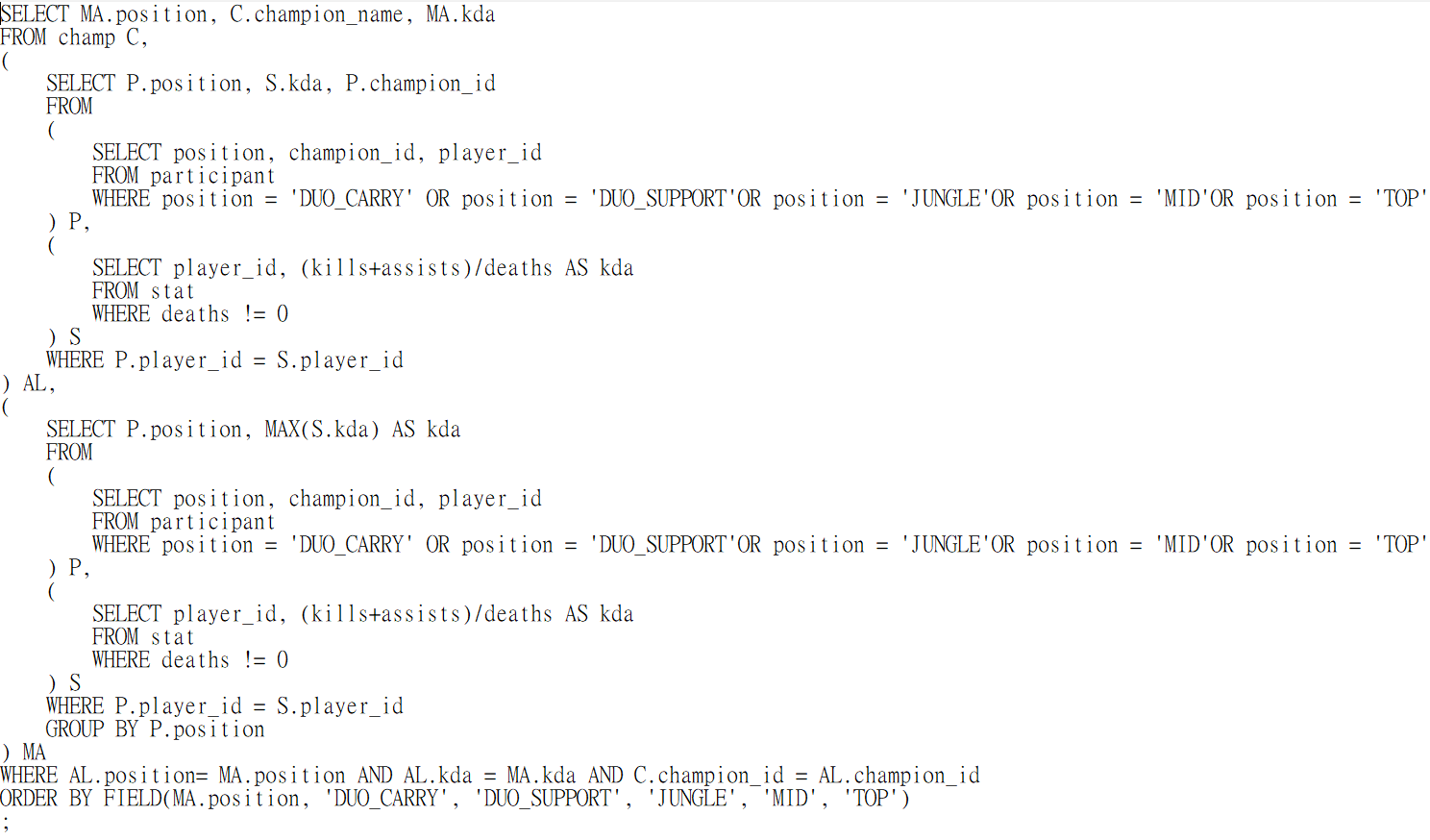
1. SQL Screenshot:

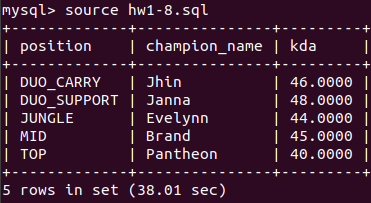


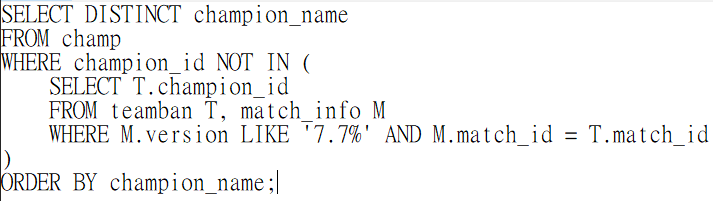
Query result:

1. SQL Screenshot:

Query result:

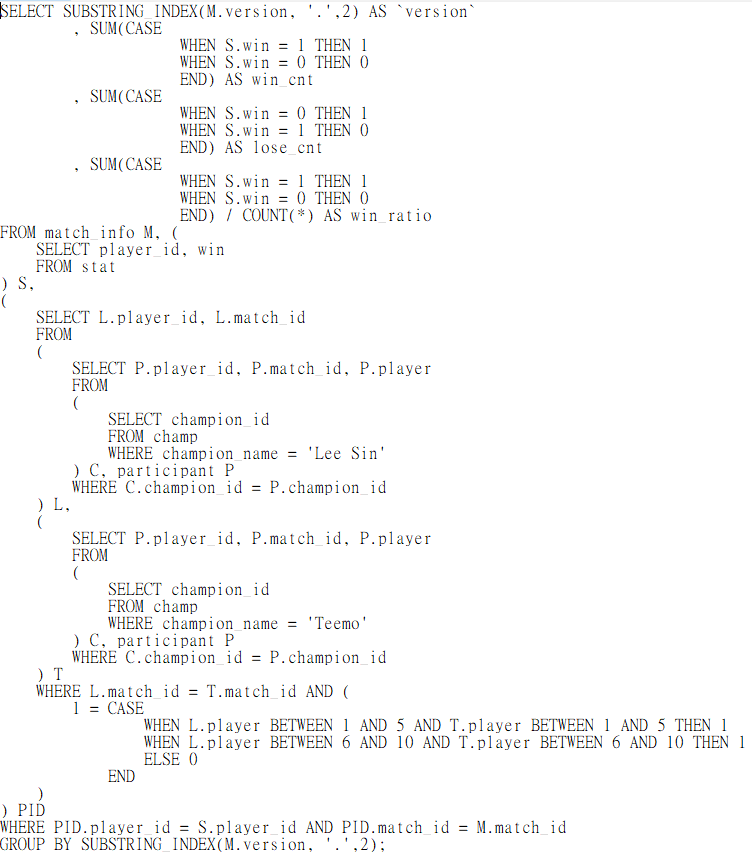
1. SQL Screenshot:

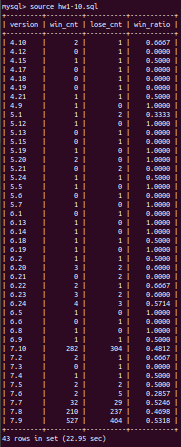
Query result:

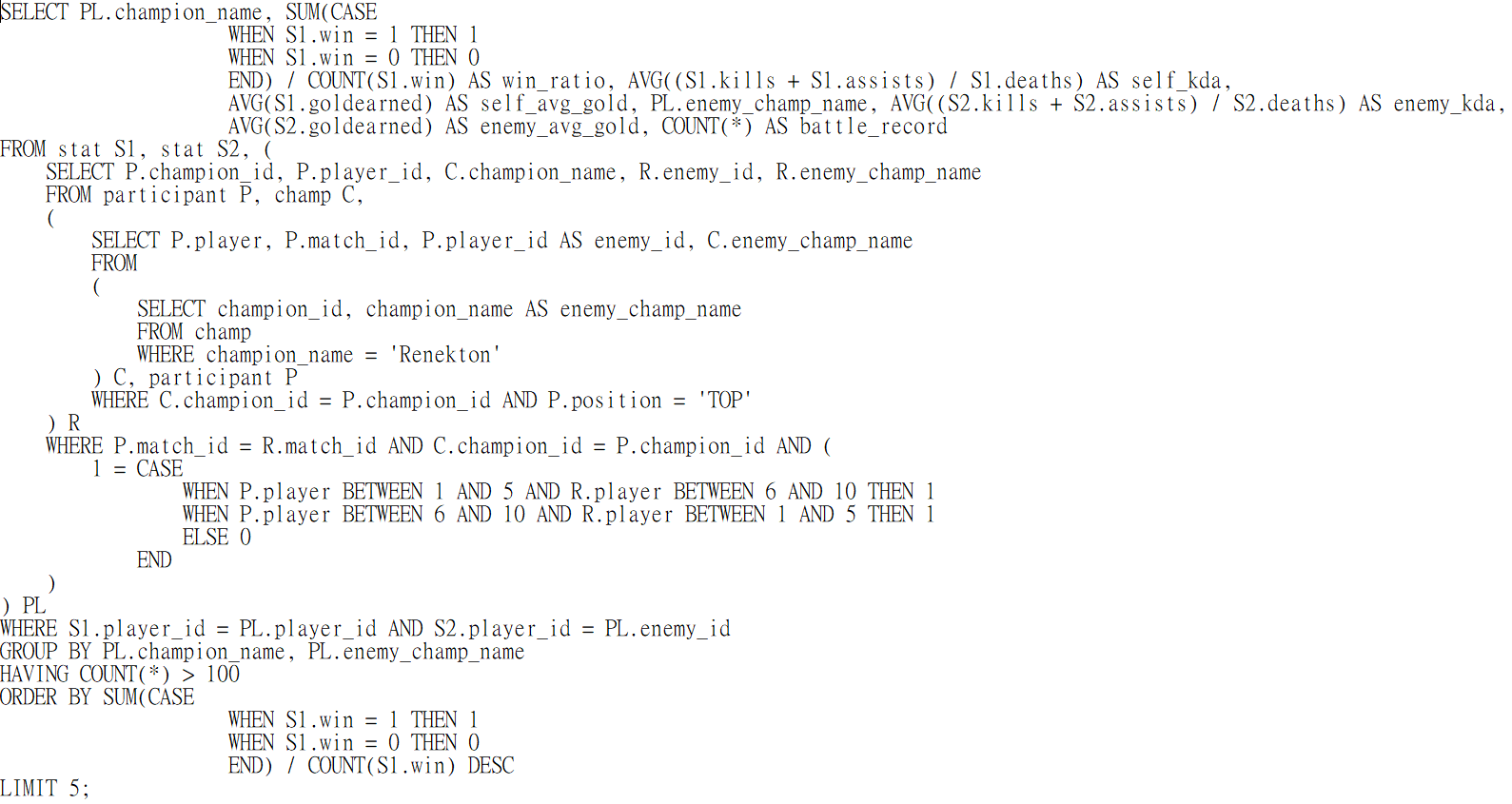
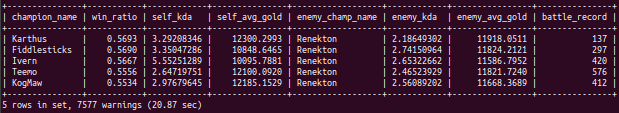
1. SQL Screenshot:

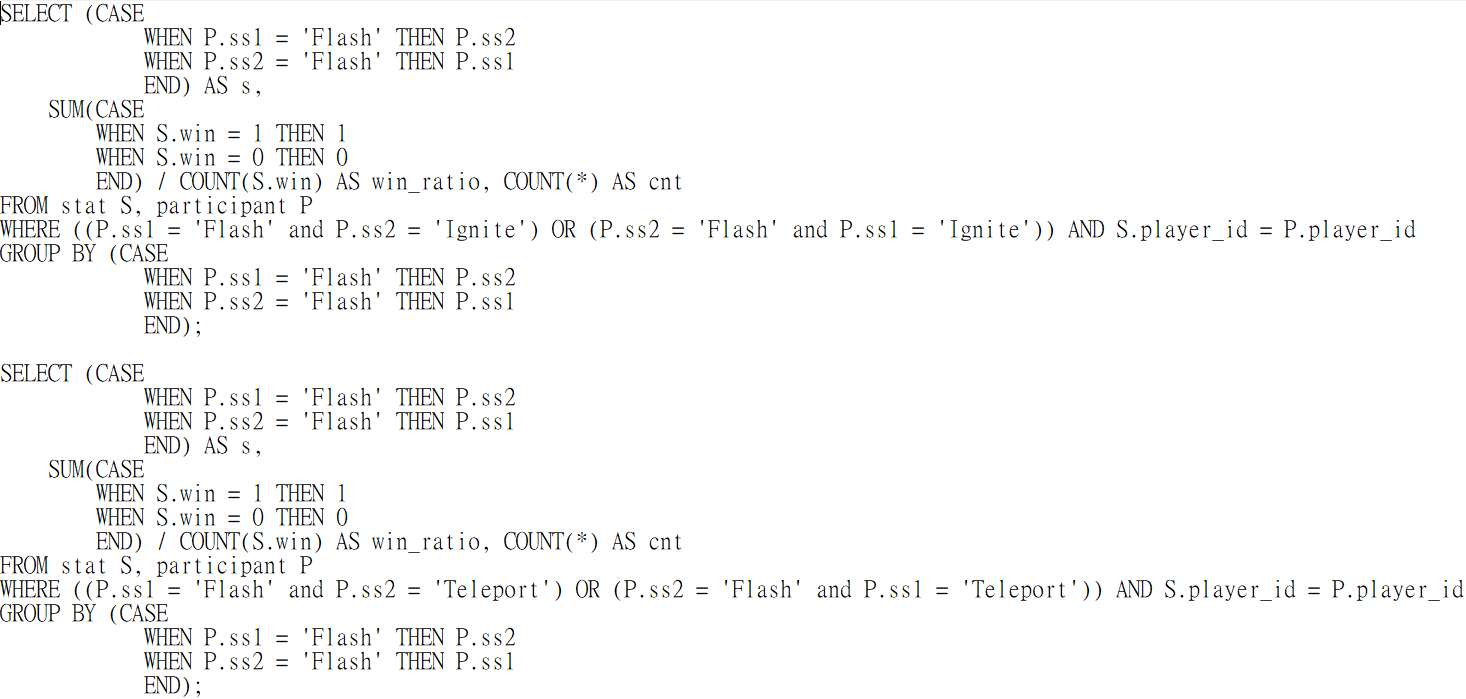
Query result:

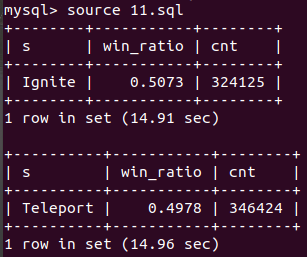
1. SQL Screenshot:

Query result:

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Query result:

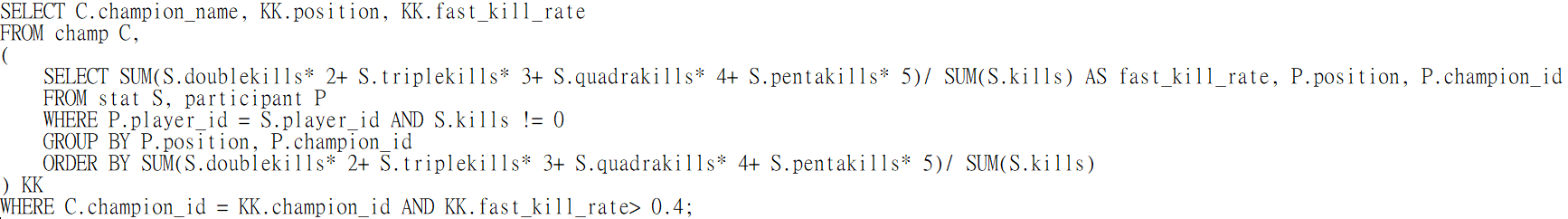
Description:

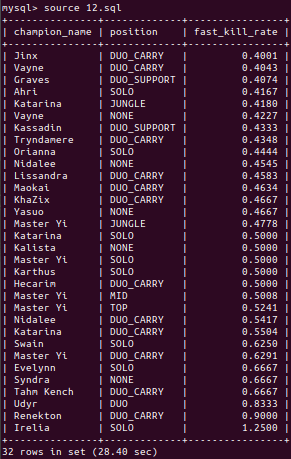
因為可能是ss1是flash或者是ss2是flash，所以必須分成兩個討論，把兩個可能or起來之後就可以得到兩個不同狀態的表格，可以知道在”flash+ ignite” 的時候結果勝率比較大。

1. Description:

在stat裡面有很多的kills紀錄，是跟連殺率有關的，所以我整理了連殺率來看哪些角色的連殺技能比較強。

對一個角色而言，連殺的計算方式如下:

SQL Screenshot

Query result: