《数据库概论》实验一：用SQL进行数据操作 实验报告

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一、实验环境

Windows10;

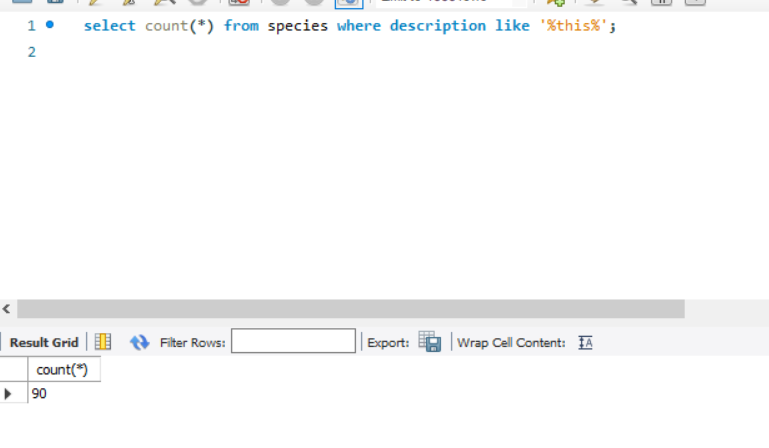
MySQL Shell 8.0.27;

MySQL Workbench 8.0 CE;

二、实验过程

1、

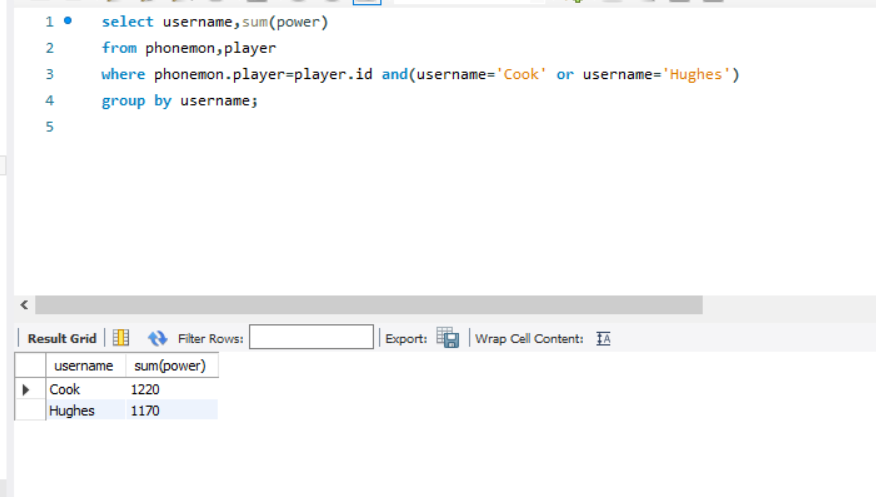
代码块：select count(\*) from species where description like ‘%this%’;



2、

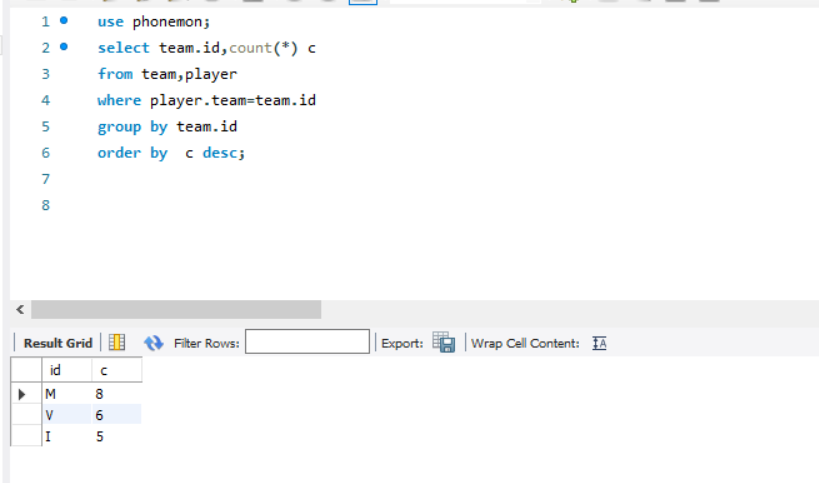
代码块：

select username,sum(power) from phonemon,player where phonemon.player=player.id and (username=’Cook’ or username=’Hughes’) group by username ;



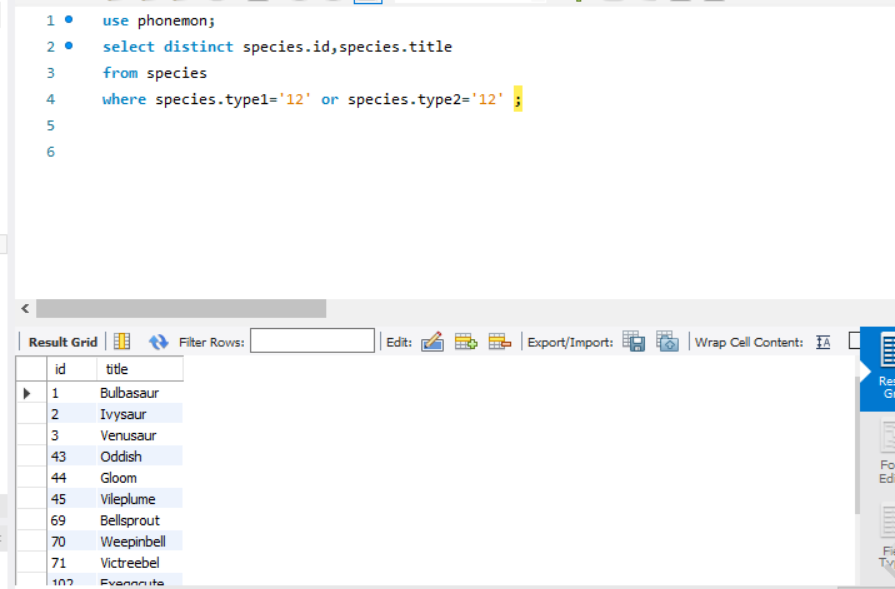
3、代码块：

Select team.id,count(\*) c from team,player where player.team=team.id order by c desc;



4、代码块：

Select distinct species.id,species.title from species where species.type1=’12’ or species.type2=’12’;



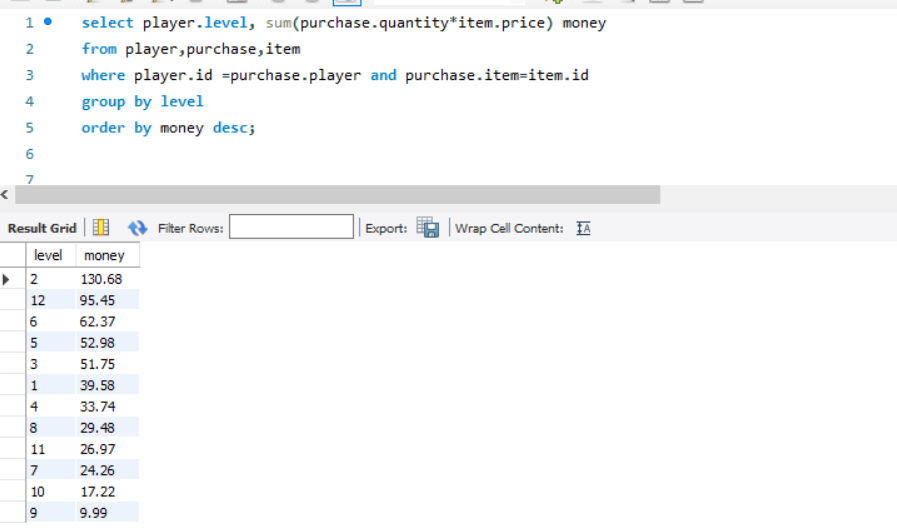
5、代码块：

Select distinct player.id,player.username from player where player.id not in (select purchase.player from purchase,food where purchase.item=food.id);

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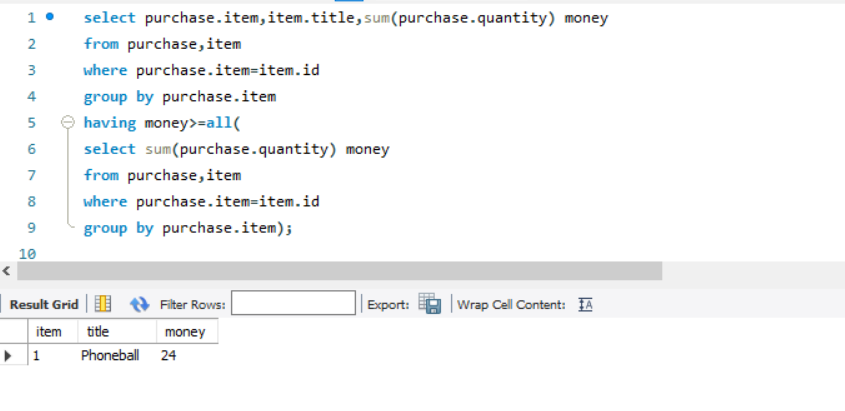
6、代码块：

Select player.level, sum(purchase.quantity\*item.price) money from player,purchase.item where player.id=purchase.player and purchase.item=item.id group by level order by money desc;



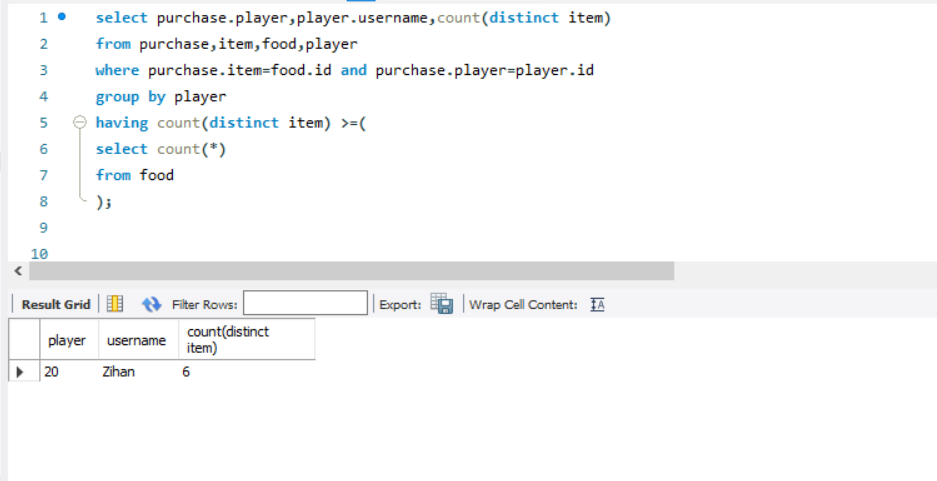
7、代码块

Select purchase.item,item.title,sum(purchase.quantity) money from purchase,item where purchase.item=item.id group by purchase.item having money>=all(select sum(purchase.quantity) money from purchase,item where purchase.item=item.id group by purchase.item);



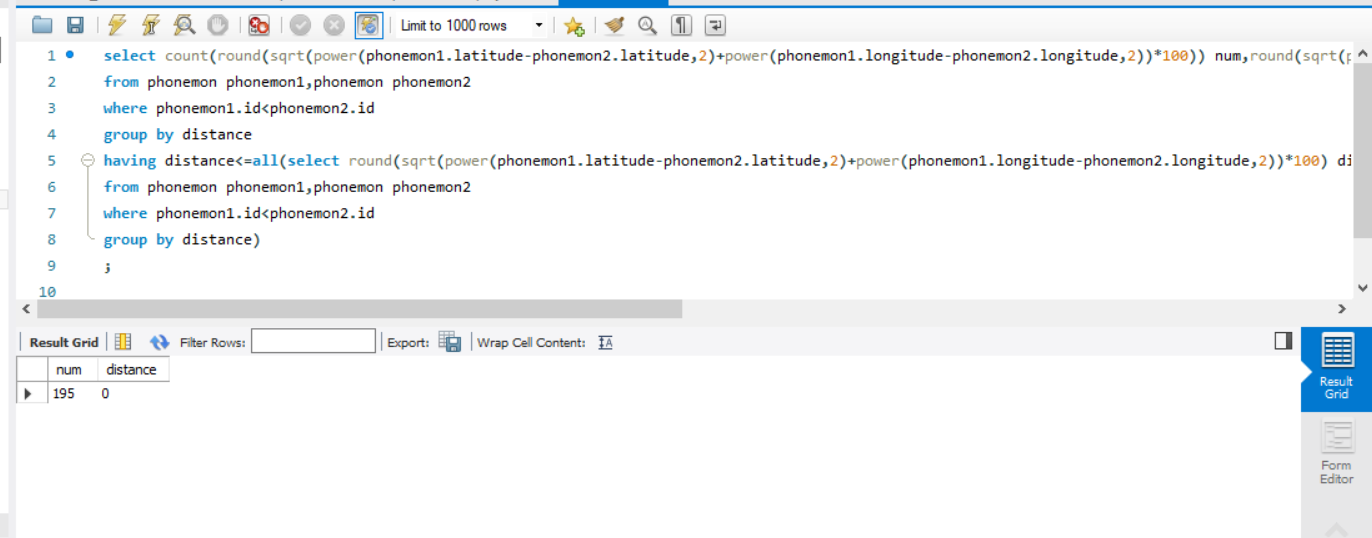
8、代码块：

Select purchase.player,player.username,count(distinct item) from purchase,item,food,player where purchase.item=foo.id and purchase.player=player.id group by player having count(distinct item)>=(select count(\*) from food);



9、代码块：

select count(round(sqrt(power(phonemon1.latitude-phonemon2.latitude,2)+power(phonemon1.longitude-phonemon2.longitude,2))\*100)) num,round(sqrt(power(phonemon1.latitude-phonemon2.latitude,2)+power(phonemon1.longitude-phonemon2.longitude,2))\*100) distance  
from phonemon phonemon1,phonemon phonemon2  
where phonemon1.id<phonemon2.id  
group by distance  
order by num desc  
;



10、

能力不足，无法完成。

三、实验中遇到的困难及解决办法

第七题中，由于不能对聚集函数使用聚集函数，在这道题中具体表现为无法对sum函数进行max操作。一番思考后，我回忆到之前上课所讲的关于all关键字的逻辑操作，最后用having操作进行了筛选。

第十题较为复杂，我难以实现

四、参考文献及致谢

感谢周心同同学与我的讨论。我们共同研究了第二题和第九题