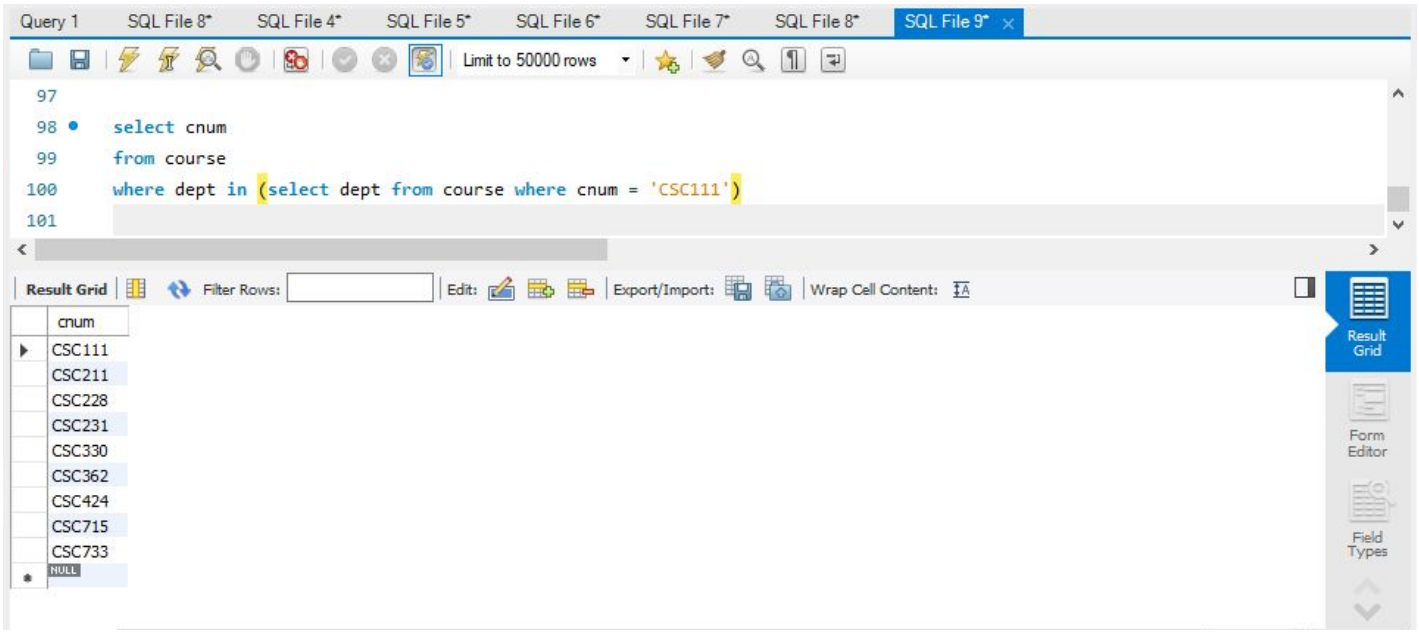
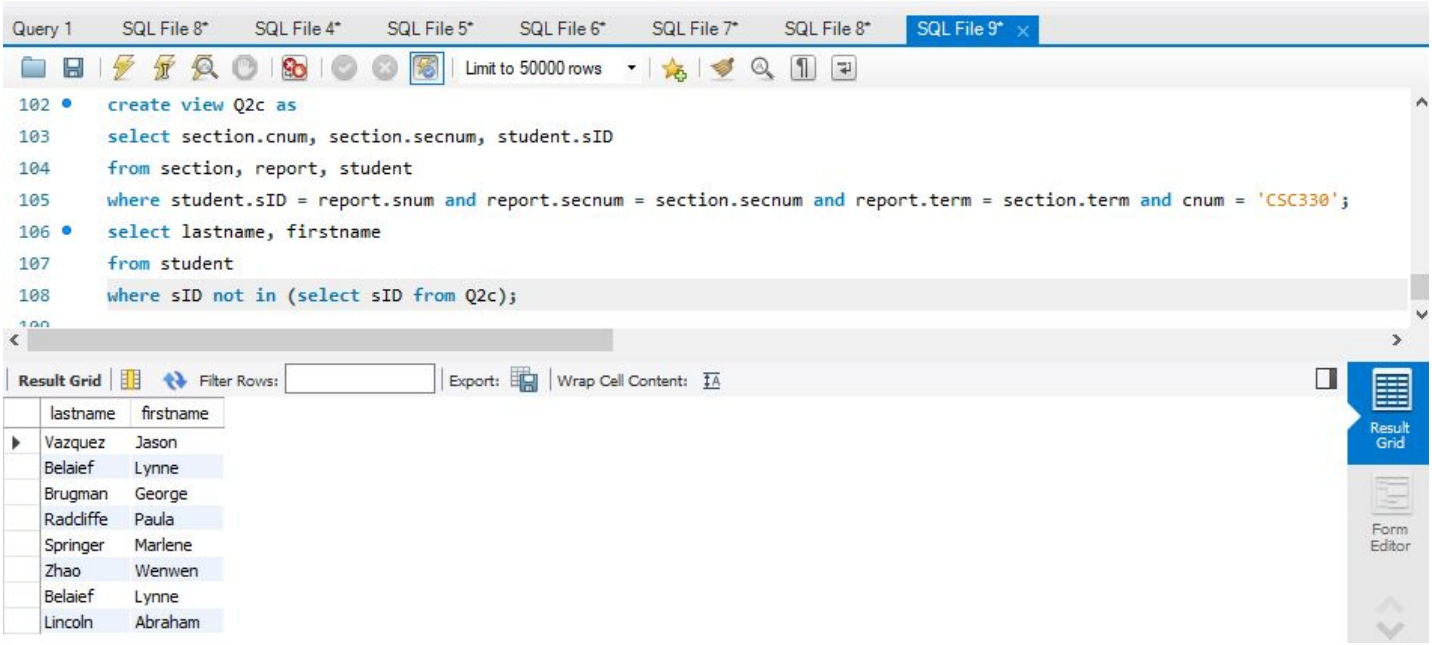
Problem Set 4
Kap676

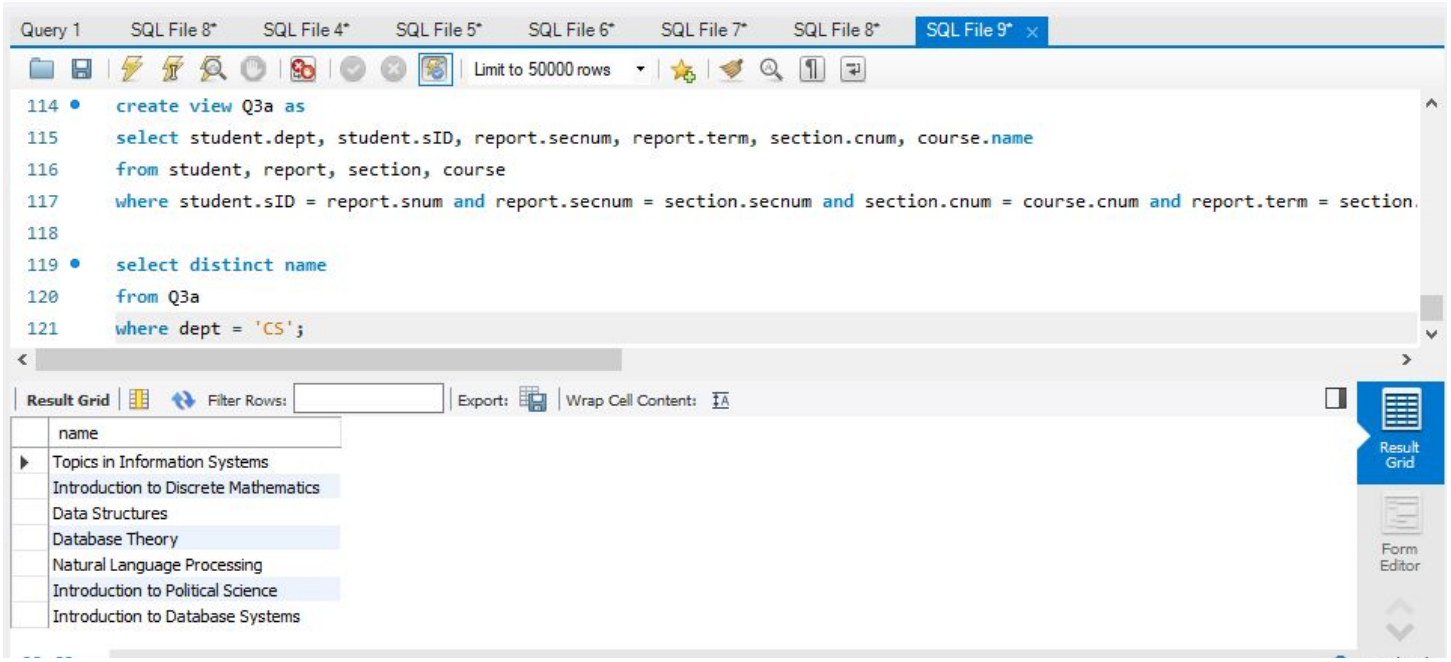
Q1: Find course numbers for courses offered by the same department as CSC111



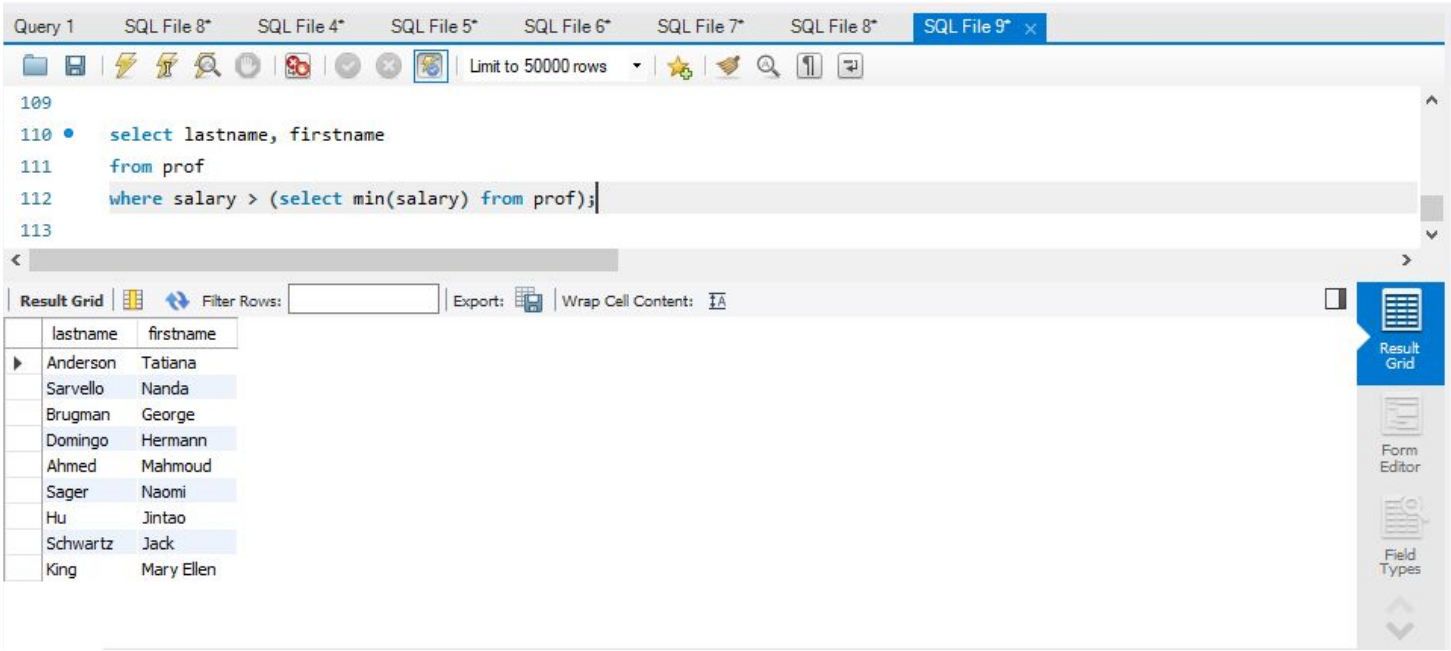
Q2: Find the names of all students who have not taken CSC330



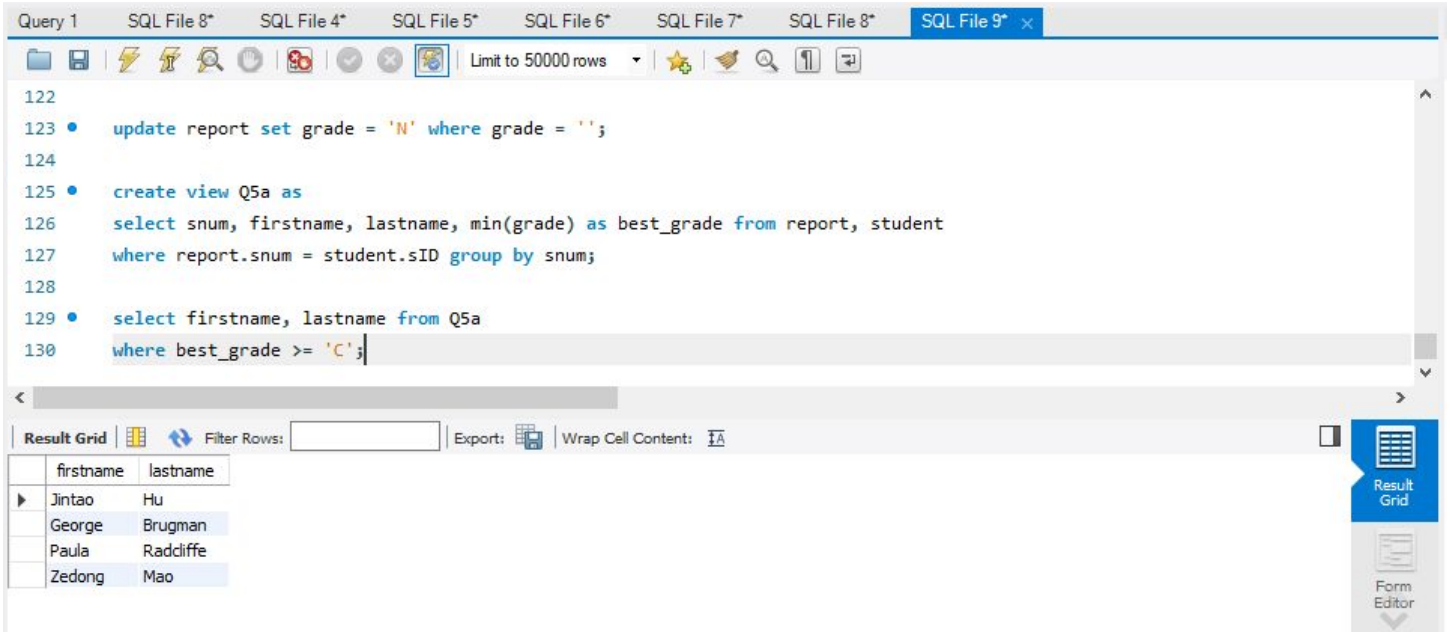
Q3: Find the names of all courses taken by at least one student in the CS dept



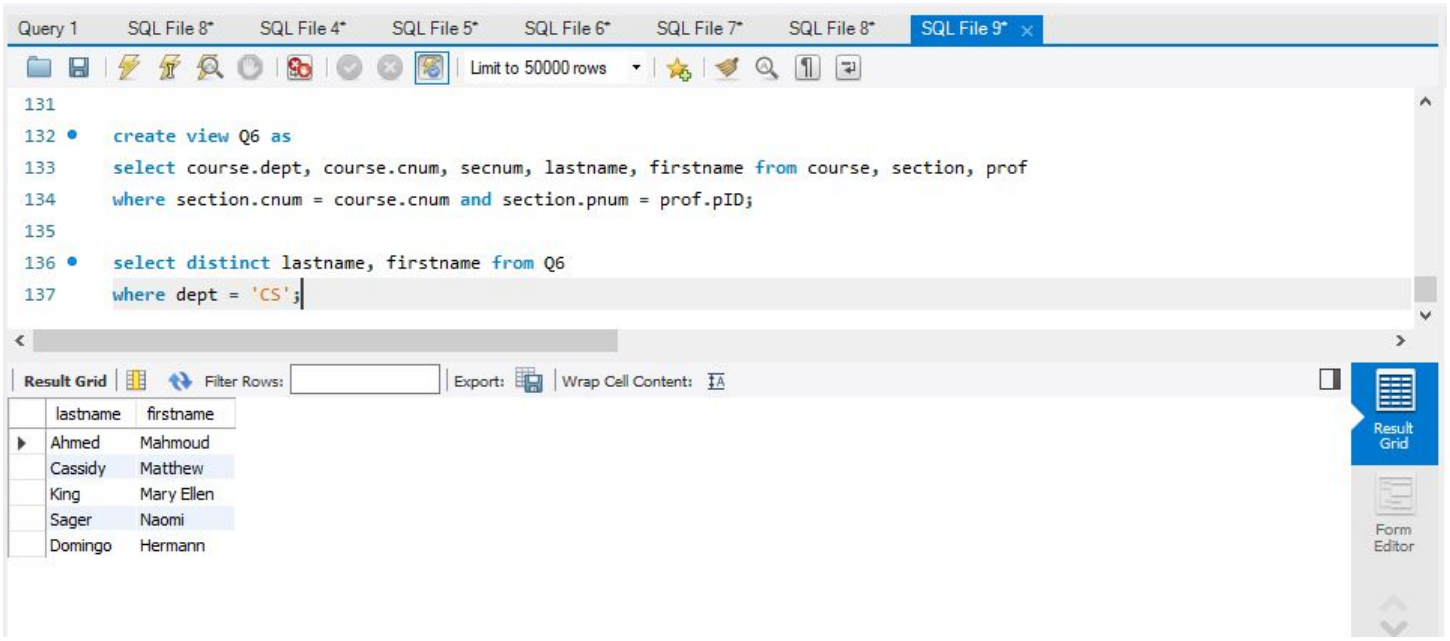
Q4:Find the names of all professors whose salary is more than the minumum



Q5: Find the names of all students who never got a better grade than 'C'



Q6: Find the names of all professors who have taught a CS course (i.e. at least one)



Q7: Find the names of all professors who have taught every CS course

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127
128 •  select P.lastname, P.firstname from prof P
129    where not exists (select C.cnum from course C
130    where C.dept = 'CS' and C.cnum not in (select S.cnum from section S where S.pnum = P.pID));
131
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

lastname	firstname
Cassidy	Matthew

Q8: Find all students who took two courses in the same department and got a better grade in the higher level course

```
132 •  create view Q8c as
133    select snum, dept, count(*) as stud_dept_course_cnt, min(level) as min_level, max(level) as max_level
134    from report, section, course
135    where report.secnum = section.secnum and report.term = section.term and section.cnum = course.cnum
136    group by snum, dept;
137 •  select * from Q8c;
138
139 •  create view Q8d as
140    select snum, dept, min_level, max_level
141    from Q8c
142    where stud_dept_course_cnt >= 2 and max_level != min_level;
```

```
143
144 •  create view Q8e as
145    select report.snum, course.dept, course.level, report.grade
146    from report, section, course, Q8d
147    where Q8d.snum = report.snum and Q8d.dept = course.dept and report.secnum = section.secnum and report.term = section.term ar
148
149 •  create view Q8f as
150    select t1.snum, t1.dept, t1.level as min_level, t1.grade as minl_grade, t2.level as max_level, t2.grade as maxl_grade
151    from Q8e t1, Q8e t2
152    where t1.snum = t2.snum and t1.dept = t2.dept and t1.level < t2.level;
153
154 •  select distinct firstname, lastname from student, Q8f
155    where Q8f.minl_grade > Q8f.maxl_grade and Q8f.snum = student.sID;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

firstname	lastname
Mahmoud	Ahmed
Giuseppi	Verdi
Jintao	Hu