Q6.1) Select s.s.id
From Suppliers s, Parts p, Catalog c
Where

Q6.2) Select s.sid
From Suppliers s, Parts p
Where Exists (Select * From Catalog c
(Where p.color = "red" or S.address = 'Ruston') and
(S.sid = C.S.id) and (P.pid = C.pid))

Q8.1) Student+ ((SSN), S Name, S address, (Hscode), Hs name
Hscity, GPA, priority)

$Hs\ code^+$ = Hs code, Hs name, Hs city ← partial

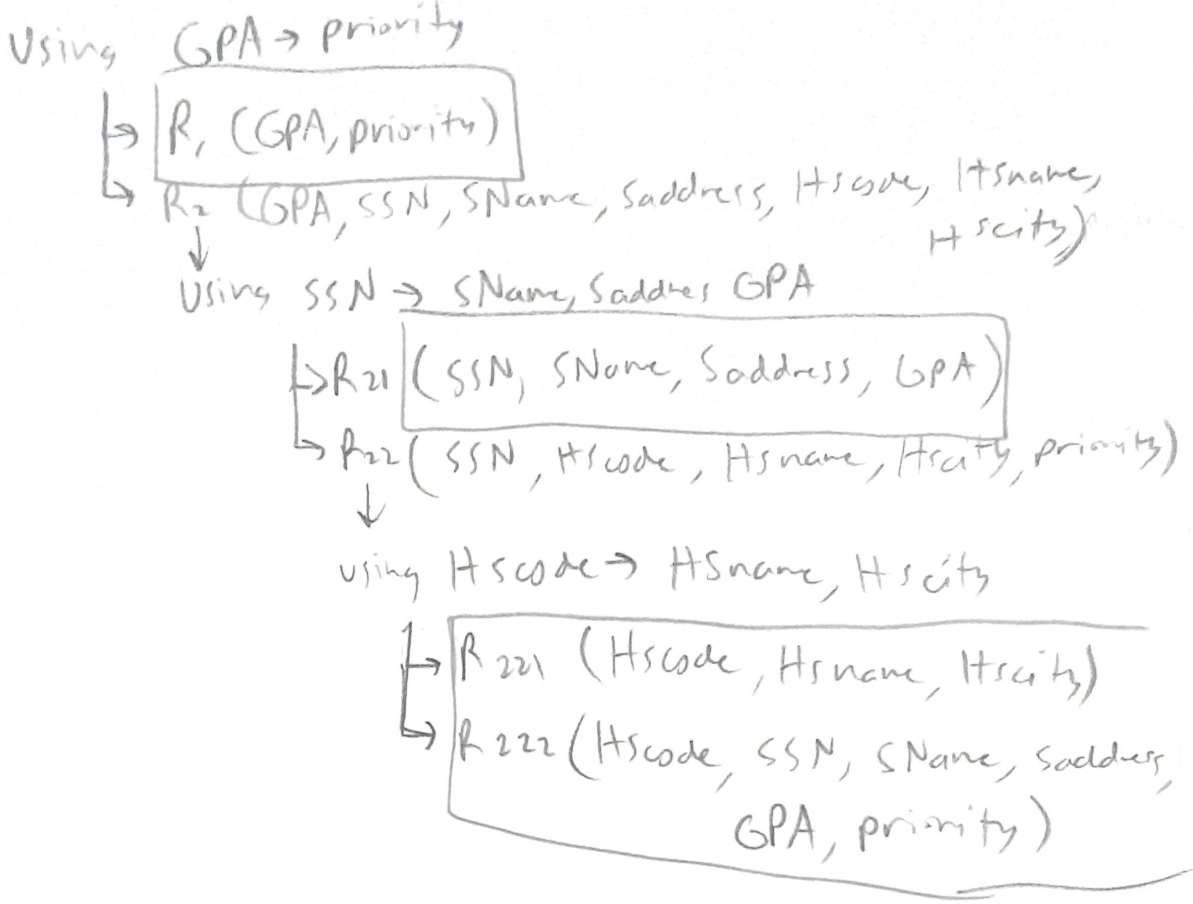
GPA^+ = GPA, priority

SSN^+ = SSN, Sname, Saddress, GPA, priority ← partial

$SSN, Hscode^+$ = SSN, Hscode, Hs name, Hs city, Sname
Saddress, GPA, priority

↓

8.1 continued)



8.2) Syntax checks - I syntax correct for opperators

Attribute checks - Do atribute names match existing atributes,

Entity Checks - Do all listed relations exist

Type checks - Are all attribute types correct

Q9.1) The answer is a) 1 is lossy but 2 is lossless.

1 is lossy because $STU_{sub1} \wedge STU_{sub2} \not\rightarrow STU_{sub1}$.

2 is lossless because $STU_{sub1} \wedge STU_{sub2} \rightarrow STU_{sub2}$ holds true.

Q9.2)

RID, AID^+: RID, AID, Title, Subject, Author

Title → Subject t.d,

RID → Title p.d

AID → Author p.d.

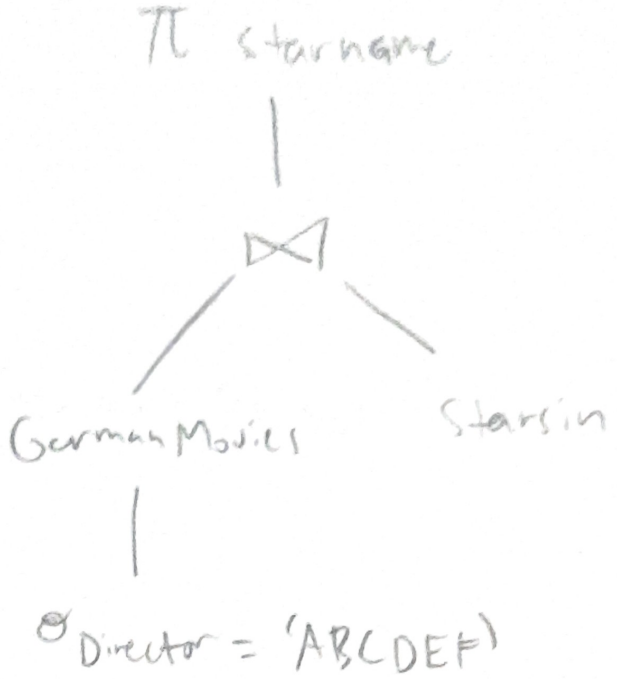
Report (RID, Title, AID, Author, Subject)

→ R_1

→ R_2

?

10.1)



10.2)

Ran out of Time

Q10.7) Read R into memory and make accessible through in-memory index structure.

Search if each tuple of S exists in R.

If exists, delete it from R.

Return remaining tuples of R.