

Social Networking problem
 statement visualizations
 for Constraint & Triggers
 (visualization may not capture
 all constraints)

Q1

HighSchooler

ID Name Grade

⋮	⋮	⋮
<new.ID>	Friendly	<new.grade>
⋮	⋮	⋮
other ID	other Name	= <new.grade>
⋮	⋮	⋮

Insert a new row

an existing row

same

same

Trigger results in

Insert(s) into Likes

LIKES

ID 1 ID 2

⋮	⋮
<new.ID>	other id
⋮	⋮

Q2

HighSchooler

ID Name Grade

insert a
new row

<new.ID>	<new.name>	<new.grade>

is it Null?

is it < 9
or > 12 ?

if one of these
then update it
as specified

can you do it with one trigger?

can you do it with two triggers, one for
each of two conditions?

Q3

Friend

insert a new row

ID1	ID2
<new.id1>	<new.id2>
⋮	⋮
<new.id2>	<new.id1>
⋮	⋮

Trigger results
in
Insert into
Friend
(what prevents
infinite looping?)

Friend

delete a row

ID1	ID2
<old.id1>	<old.id2>
⋮	⋮
<old.id2>	<old.id1>
⋮	⋮

Trigger results
in
delete from
Friend

Q4

Highschooler

ID	Name	Grade
	:	
<new.id>	<new.name>	<old.grade>
	:	

<new.grade>

Trigger
results
in

Highschooler

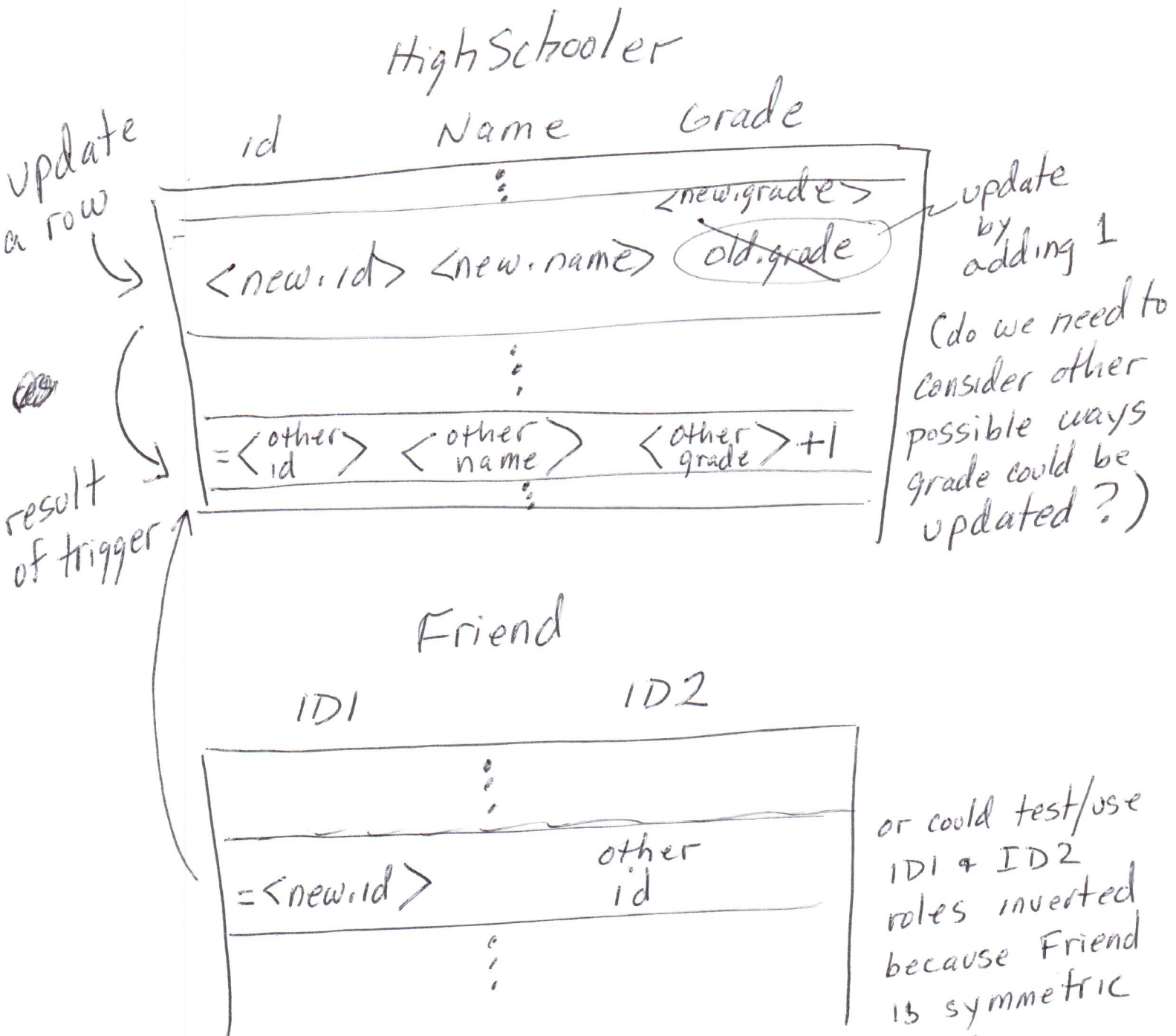
ID	Name	Grade
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	:	
<new.id>	<new.name>	<new.grade>
	:	

deletion

As an aside: are corresponding Friend & Likes entries deleted too (with ids matching <new.id>? with triggers? with FK constraint actions?)

Q5 visualization for one trigger
 same as Q4.



How could triggers in Q5 (one adapted from Q4) work in concert?

Q6

LIKES

ID1	ID2
⋮	
A ~ new.id1? ~ old.id1?	B ~ C ~ old.id2
⋮	

Trigger
results
in

Friend

ID1	ID2
⋮	
<new.id2>	<old.id2>
⋮	
<old.id2>	<new.id2>
⋮	

delete

if you don't get this right away,
look at feedback you get from
autograder carefully to debug
your assumptions