

1.

STUDENT	StuID	Lname	Fname	Age	Sex	Major	Advisor	City_Code
	<u>_a</u> <u>_b</u>	P. <u>_x</u> P. <u>_y</u>	P. <u>_c</u> P. <u>_d</u>					<u>_z</u> <u>_z</u>

LOVES	WhoLoves	WhoIsLoved
	<u>_a</u> <u>_b</u>	<u>_e</u> <u>_f</u>

LIKES	WhoLikes	WhoIsLiked
	<u>_a</u> <u>_b</u>	<u>_b</u> <u>_a</u>

Conditions
<u>_a</u> < <u>_b</u> AND $\neg$ ( <u>_e</u> = <u>_b</u> AND <u>_a</u> = <u>_f</u> )

4.

STUDENT	StuID	Lname	Fname	Age	Sex	Major	Advisor	City_Code
	<u>_s</u>	P. <u>_x</u>	P. <u>_y</u>					

LIVES_IN	StuID	DormID	Room_number
	<u>_s</u>		

CAR_OWNERSHIP	StuID	CarID
	<u>_s</u> <u>_s</u>	<u>_c</u> $\neg$ <u>_c</u>

5.

STUDENT	StuID	Lname	Fname	Age	Sex	Major	Advisor	City_Code
	<u>_s</u>	P. <u>_x</u>	P. <u>_y</u>					

LIVES_IN	StuID	DormID	Room_number
	<u>_s</u>		

CAR_OWNERSHIP	StuID	CarID

	_s		

HAS_PET	StuID	PetID
	_s	

13.

STUDENT	StuID	Lname	Fname	Age	Sex	Major	Advisor	City_Code
	_a	P._x	P._y					
	_b							
	_d							
	_e							_h

ENROLLED_IN	StuID	CID	Grade
	_a	_c	
	_b	_c	
	_b	_k	
	_d	_k	

LIVES_IN	StuID	DormID	Room_number
	_d	_f	_g
	_e	_f	_g

CITY	City_code	City_name	State	Country	Latitude	Longitude
	_h		PA			

VotedForElection	StuID	Candidate_ID	Year
	_e	_j	2020

US_Candidate	Candidate_ID	Candidate_Name	Party
	_j	Donald Trump	

Conditions
_a!=_b AND _b!=_d AND _d!=_e

22.

STUDENT	StuID	Lname	Fname	Age	Sex	Major	Advisor	City_Code
	_a	P._b	P._c	P._d	F			

MINOR_IN	StuID	DNO
	_a	_e

DEPARMENT	DNO	Division	DName	Room	Building	DPhone
	_e _h	EN EN				

ENROLLED_IN	StuID	CID	Grade
	_a	_f	

COURSE	CID	CName	Credits	Instructor	Days	Hours	DNO
	_f			_g			

FACULTY	FacID	Lname	Fname	Rank	Sex	Phone	Room	Building
	_g			Professor	F			

MEMBER_OF	FacID	DNO	Appt_Type
	_g	_h	Primary

24.

STUDENT	StuID	Lname	Fname	Age	Sex	Major	Advisor	City_Code
	P._a _c _d	P._b Smith	P._c Linda					_e _f

ENROLLED_IN	StuID	CID	Grade
	_a _c _c _d	_j _j _k _k	

CITY	City_code	City_name	State	Country	Latitude	Longitude
	_e _f		_g _g			

VotedForElection	StuID	Candidate_ID	Year
	_d _c _d _c	_h _h _i _i	2016 2016 2020 2020

US_Candidate_For	Candidate_ID	Office	Location	Year
	_h _i	President President		2016 2020

Conditions
_a!=_c AND _c!=_d

26.

STUDENT	StuID	Lname	Fname	Age	Sex	Major	Advisor	City_Code
	_a	_b	_c					

CONDUCT_VIOLATION	StuID	DormID	Reason	Date
	_a			_f

LIVES_IN	StuID	DormID	Room_number
	_a	_d	

DORM	DormID	Dorm_name	Student_capacity	Gender
	_d	_e		

RESULT	Fname	Lname	Dorm_name	Num_violation	StuID
	P._c	P._b	P._e	P.CNT.ALL._f	G._a

31.

STUDENT	StuID	Lname	Fname	Age	Sex	Major	Advisor	City_Code
	_a _b	_c _d	_e _f					

LIVES_IN	StuID	DormID	Room_number
	_a _b	_g _g	_r _r

VotedForElection	StuID	Candidate_ID	Year
	_a _b	_h _i	2020 2020

US_Candidate	Candidate_ID	Candidate_Name	Party
	_h _i	_j _k	

US_Candidate_For	Candidate_ID	Office	Location	Year
	_h _i	President President		2020 2020

RESULT	FName_1	LName_1	Candidate_Name_1	FName_2	LName_2	Candidate_Name_2
P.	_e	_c	_j	_f	_d	_k

Conditions
_a<_b AND _h!=_i

34.

STUDENT	StuID	Lname	Fname	Age	Sex	Major	Advisor	City_Code
	_a	_b	_c	_d				

VotedForElection	StuID	Candidate_ID	Year
	_a _a	_e _f	2016 2020

US_Candidate	Candidate_ID	Candidate_Name	Party
	_e _f	_g _i	_h _j

US_Candidate_For	Candidate_ID	Office	Location	Year
	_e _f	President President		2016 2020

RESULT	FName	LName	Age	Candidate_Name_2016	Political_Party_2016	Candidate_Name_2020
P.	_c	_b	_d	_g	_h	_i

Political_Party_2020
<u>_j</u>

Conditions
<u>_e</u> != <u>_f</u>

35.

STUDENT	StuID	Lname	Fname	Age	Sex	Major	Advisor	City_Code
	<u>_a</u>	<u>_b</u>	<u>_c</u>					<u>_d</u>

VotedForElection	StuID	Candidate_ID	Year
	<u>_a</u>	<u>_i</u>	<u>_j</u>
	<u>_a</u>	<u>_k</u>	<u>_l</u>

US_Candidate	Candidate_ID	Candidate_Name	Party
	<u>_i</u>		<u>_m</u>
	<u>_k</u>		<u>_n</u>

US_Candidate_For	Candidate_ID	Office	Location	Year
	<u>_i</u>	President		<u>_j</u>
	<u>_k</u>	President		<u>_l</u>

CITY	City_code	City_name	State	Country	Latitude	Longitude
	<u>_d</u>		<u>_e</u>			

RESULT	Fname	Lname	State
P.	<u>_c</u>	<u>_b</u>	<u>_e</u>

Conditions
<u>_j</u> != <u>_l</u> , <u>_m</u> != <u>_n</u>

42.

STUDENT	StuID	Lname	Fname	Age	Sex	Major	Advisor	City_Code
	<u>_a</u>	<u>_b</u>	<u>_c</u>					

LIVES_IN	StuID	DormID	Room_number

	<u>_a</u>	<u>_d</u>	
	<u>_e</u>	<u>_d</u>	

HAS_PET	StuID	PetID
	<u>_e</u>	<u>_f</u>

PET	PetID	PetName	PetType	PetAge	PetSex
	<u>_f</u>		<u>_g</u>		

HAS_ALLERGY	StuID	AllergyName
	<u>_a</u>	<u>_g</u>

DORM	DormID	Dorm_name	Student_capacity	Gender
	<u>_d</u>	<u>_h</u>		

RESULT	Fname	Lname	Dorm_name	
P.	<u>_c</u>	<u>_b</u>	<u>_h</u>	

43.

STUDENT	StuID	Lname	Fname	Age	Sex	Major	Advisor	City_Code
	<u>_a</u>	<u>_j</u>	<u>_k</u>					
	<u>_d</u>	<u>_e</u>	<u>_f</u>					

LOVES	WhoLoves	WhoIsLoved
	<u>_a</u>	<u>_d</u>
	<u>_d</u>	<u>_a</u>

LIVES_IN	StuID	DormID	Room_number
	<u>_a</u>	<u>_g</u>	<u>_h</u>
	<u>_i</u>	<u>_g</u>	<u>_h</u>

HAS_PET	StuID	PetID
	<u>_i</u>	<u>_m</u>

PET	PetID	PetName	PetType	PetAge	PetSex
	<u>_m</u>	<u>_f</u>			

Conditions
_a != _i

RESULT	FName1	LName2	PetName	FName	LName
	_f	_e	_f	_k	_j

49.

/\* List the max amount of time on average a department's student spend on Role Playing video Games\*/

VIDEO_GAMES	GameID	GName	GType
	_a		Role Playing Games

PLAYS_GAMES	StuID	GameID	Hours_Played
	_b	_a	_c

STUDENT	StuID	Lname	Fname	Age	Sex	Major	Advisor	City_Code
	_b					_d		

DEPARMENT	DNO	Division	DName	Room	Building	DPhone
	_d					

RESULT	DNO	Hrs_Played
	G._d	P.MAX(AVG.ALL._c)