

1.1:

NewTable[A(uint), Q(char), R(uint), A(uint), B(char), C(uint)]

A	Q	R	A	B	C
20	A	5	20	B	6
20	A	5	20	B	5

1.2:

NewTable[A(uint), Q(char), R(uint), A(uint), B(char), C(uint)]

A	Q	R	A	B	C
25	B	8	20	B	6
25	B	8	20	B	5

1.3:

NewTable[A(uint), Q(char), R(uint), B(char), C(uint)]

A	Q	R	B	C
20	a	5	B	6
20	A	5	B	5

1.4:

NewTable[A(uint), Q(char), R(uint), B(char), C(uint)]

A	Q	R	B	C
20	A	5	B	5

2.1: $\pi_{\text{Name}}(\sigma_{\text{Elo} \geq 2500}(\text{Players}))$

2.2: $\pi_{\text{Name}}(\sigma_{\text{wpID} = \text{pID}}(\text{Players x Games}))$

2.3: $\sigma_{\text{Result} = '1-0'}(\text{Games})$
 $\pi_{\text{Name}}(\sigma_{\text{wpID} = \text{pID}}(\text{Players x Games}))$

2.4: $\sigma_{\text{eID} = 2 \vee \text{eID} = 3}(\text{Games})$
 $\pi_{\text{Name}}(\sigma_{\text{wpID} = \text{pID}}(\text{Players x Games}))$
 $\pi_{\text{Name}}(\sigma_{\text{bpID} = \text{pID}}(\text{Players x Games}))$

2.5: $\pi_{\text{Name}}(\sigma_{(\text{wpID} = 1 \wedge \text{Result} = '0-1') \vee (\text{bpID} = 1 \wedge \text{Result} = '1-0')})(\text{Events x Players x Games})$

2.6 $\sigma_{\text{wpID} = 1 \vee \text{bpID} = 1}(\text{Players x Games})$
 $\pi_{\text{Name}}(\sigma_{\text{Name} \neq 'Magnus Carlsen'})$

3.1 a:

NonCGrades[Name(varchar)]

Name
Hermione
Hermione
Hermione
Harry
Harry
Ron

b: Project the names of the students who did not receive a “C” in any course they were enrolled in.

3.2 a:

SameDOB[Name(varchar)]

Name
Hermione

b: Project the name of the student with the same DOB as Ron

3.3 a:

CourseNames[Name(varchar)]

Name
SW Practice
Architecture
Databases
Architecture
Databases
SW Practice
Architecture
SW Practice

b: Project the names of the courses the students are enrolled in

Part 4:

$\pi_{\text{Name}} (\sigma_{\text{cID} \geq 3000 \vee \text{cID} \leq 4000} (\pi_{\text{cID}, \text{sID}} (\text{Enrolled}) / \pi_{\text{sID}} (\text{Students})))$