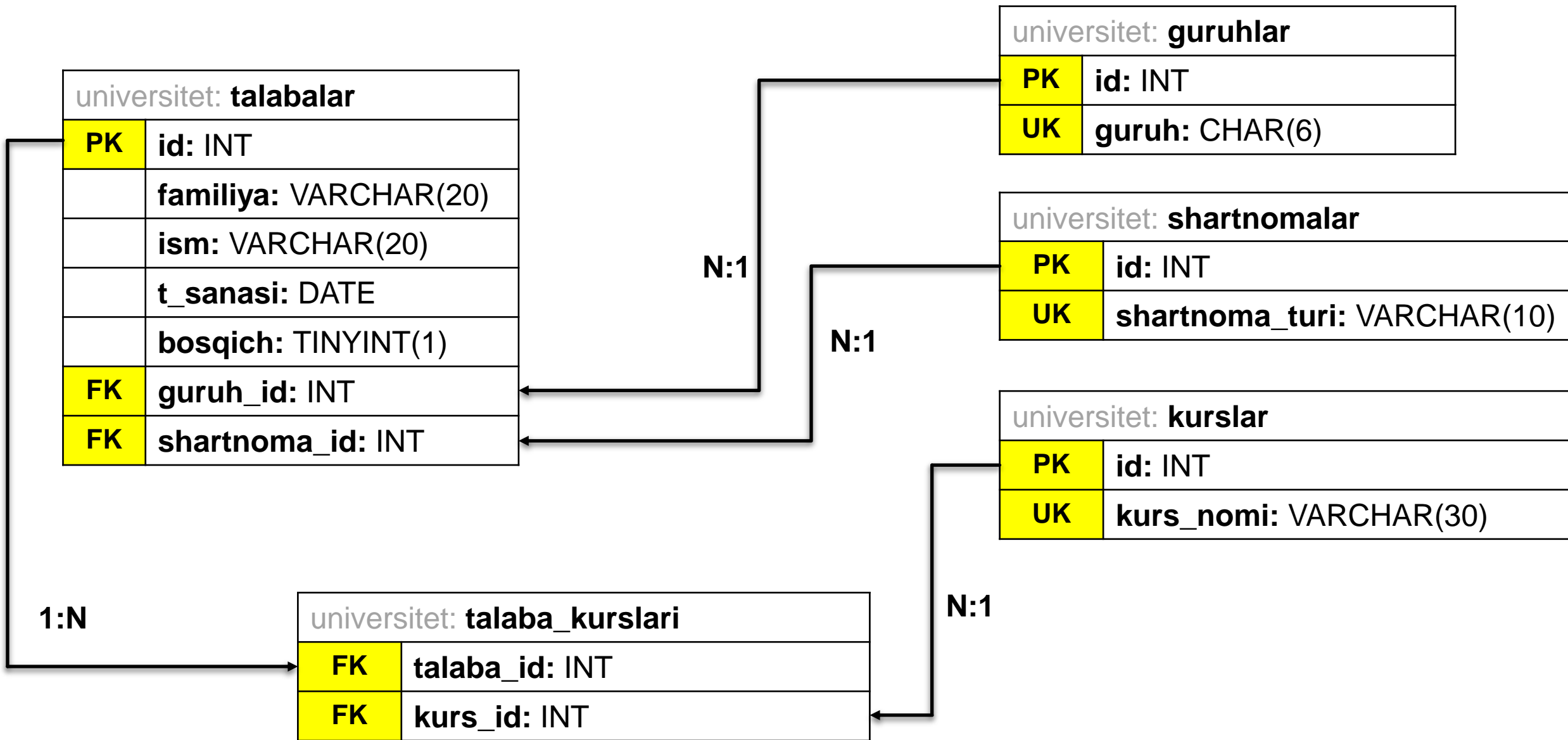


12. PRIMARY KEY (PK), FOREIGN KEY (FK), UNIQUE (UK)

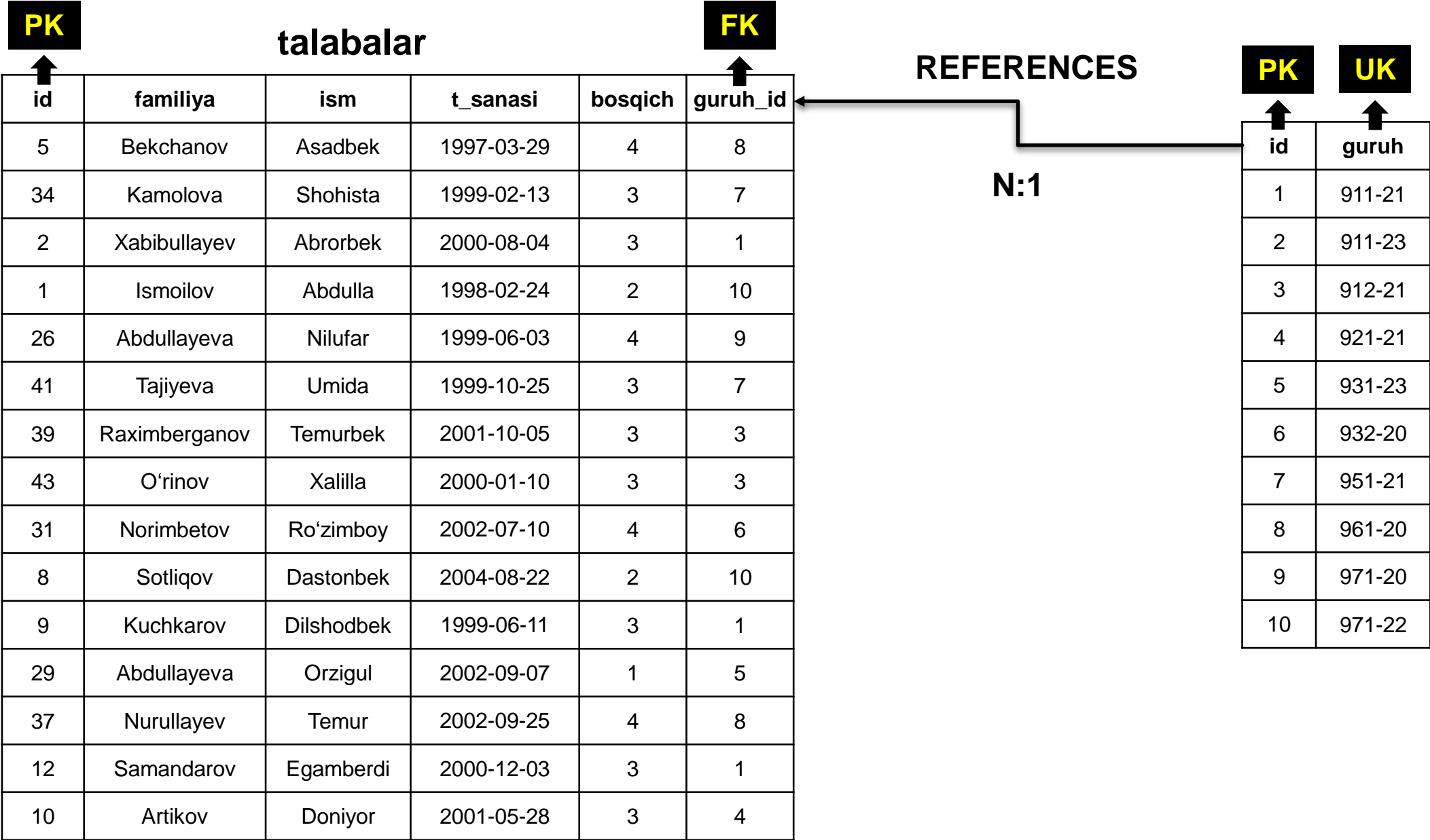
**Jadvallarni to'g'ri dizayn qilish-2 (SXEMA),
asosiy kalit, tashqi kalit va yagonalik**

ass. Baltayev Rustambek

Umumiy bog'lanishlar sxemasi

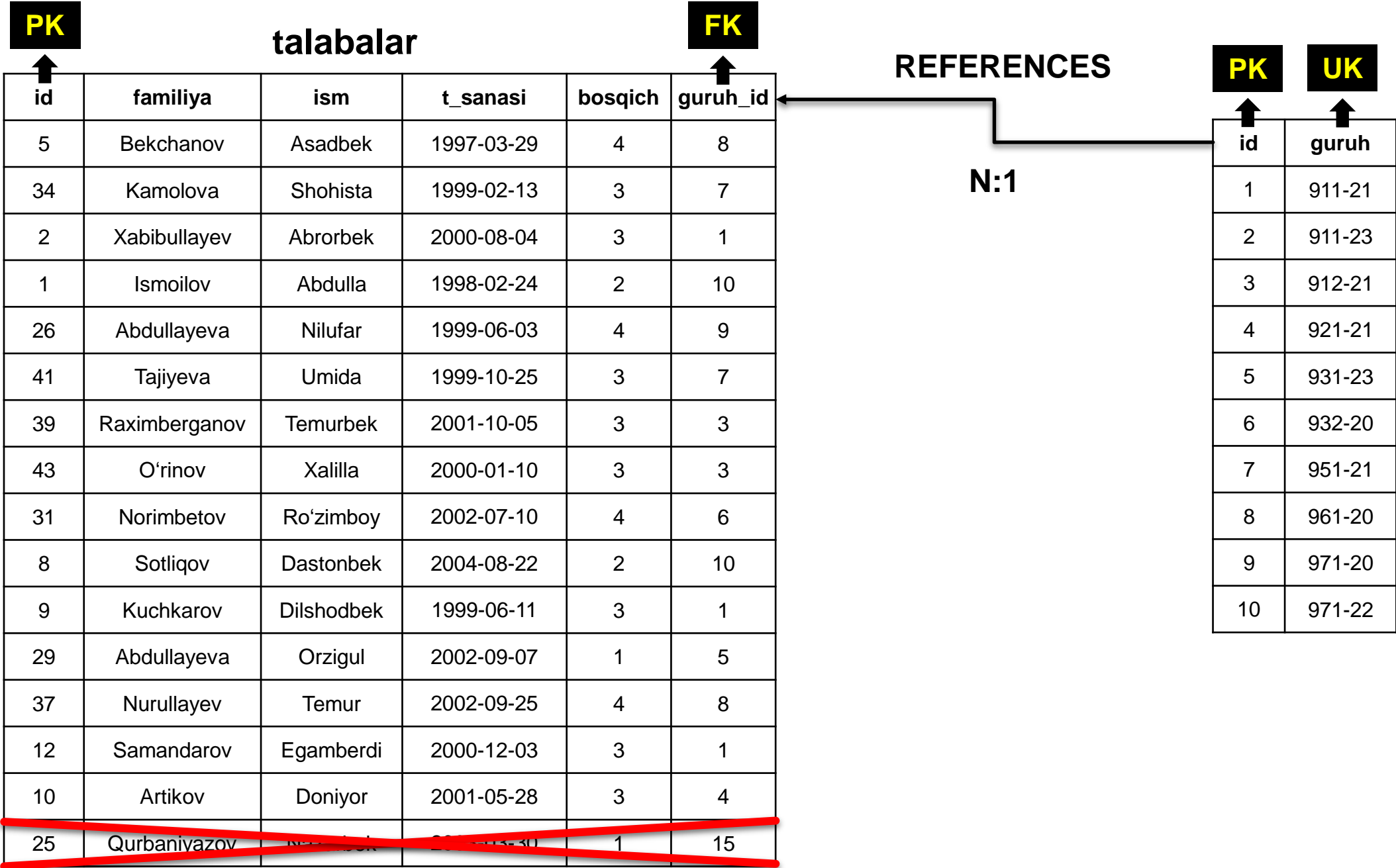


Jadvallarni bog'lashdan maqsad ma'lumotlarni kiritishdagi xatolikni oldini olishdir



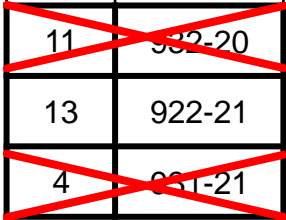
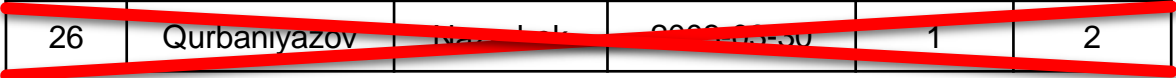
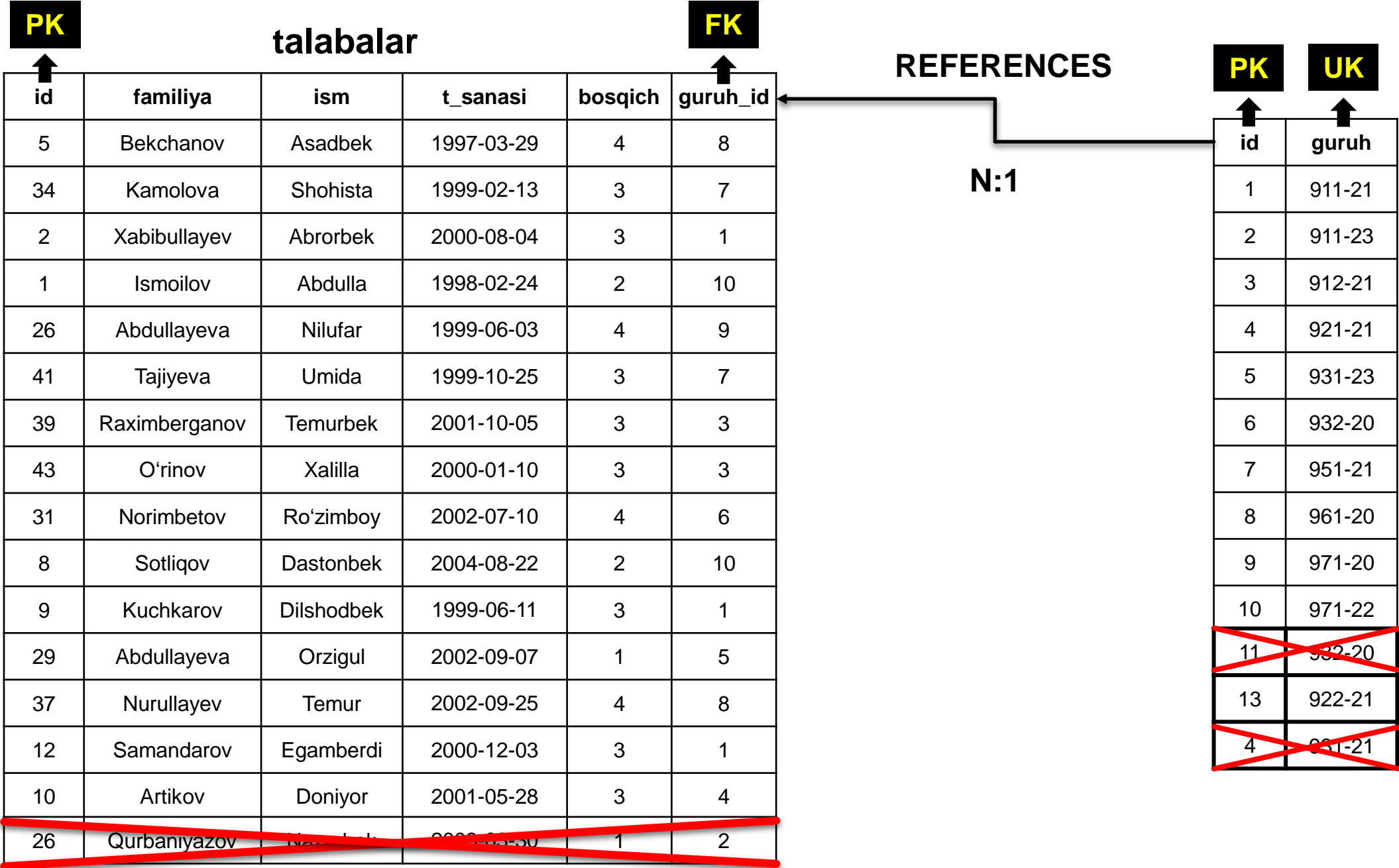
guruhlar

Jadvallarni bog'lashdan maqsad ma'lumotlarni kiritishdagi xatolikni oldini olishdir

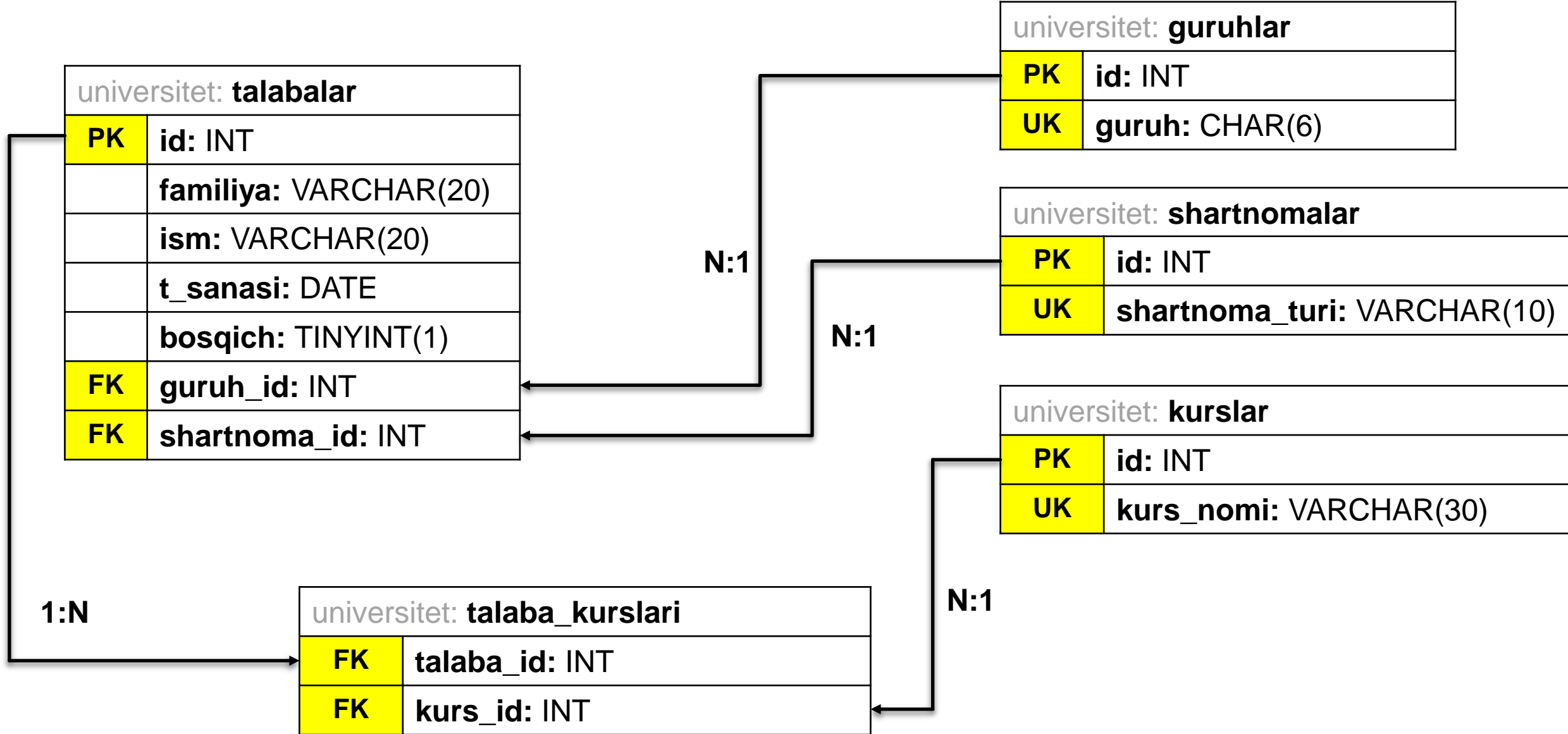


guruhlar

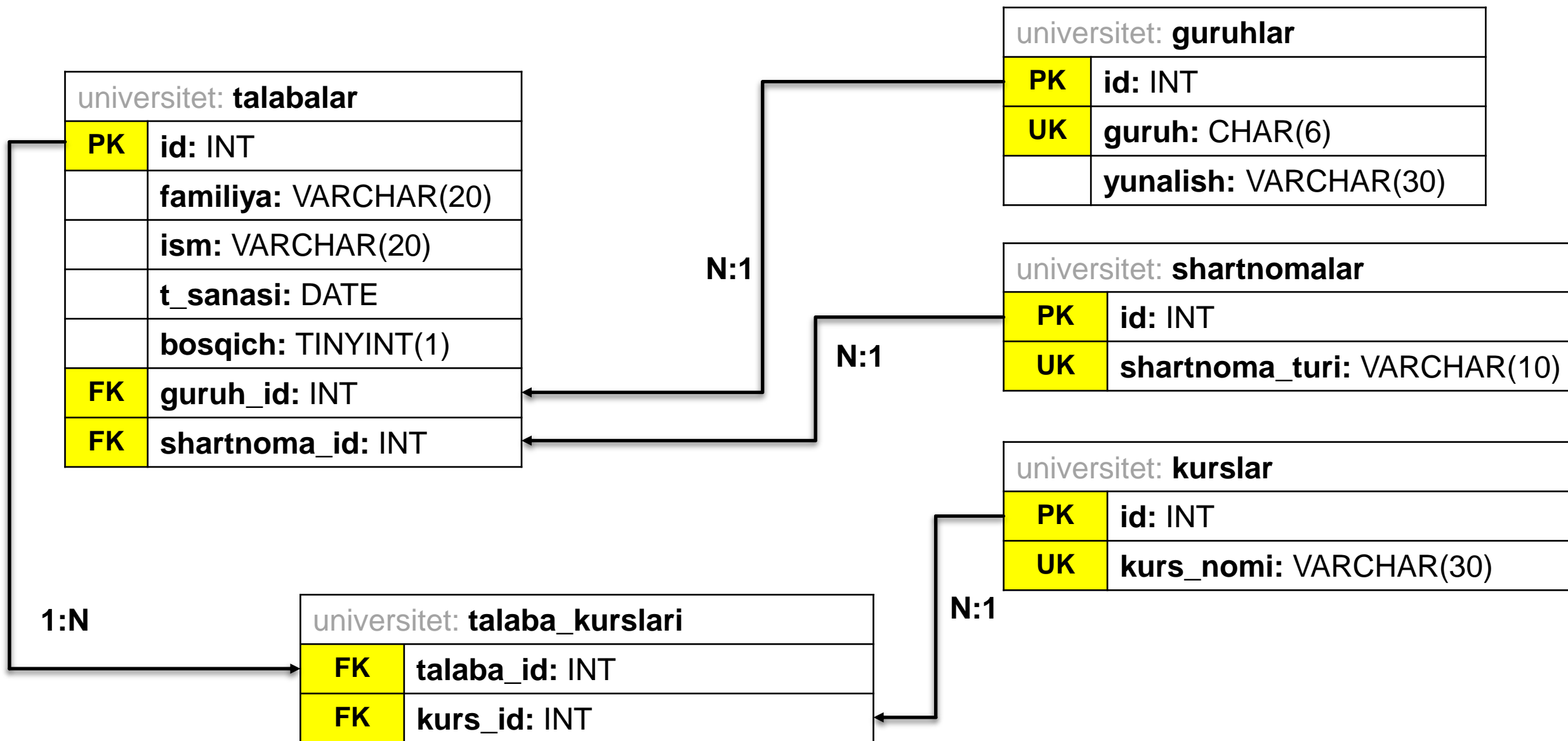
PK va UK qo'yishdan ham maqsad ma'lumotlarni kiritishdagi xatolikni oldini olishdir



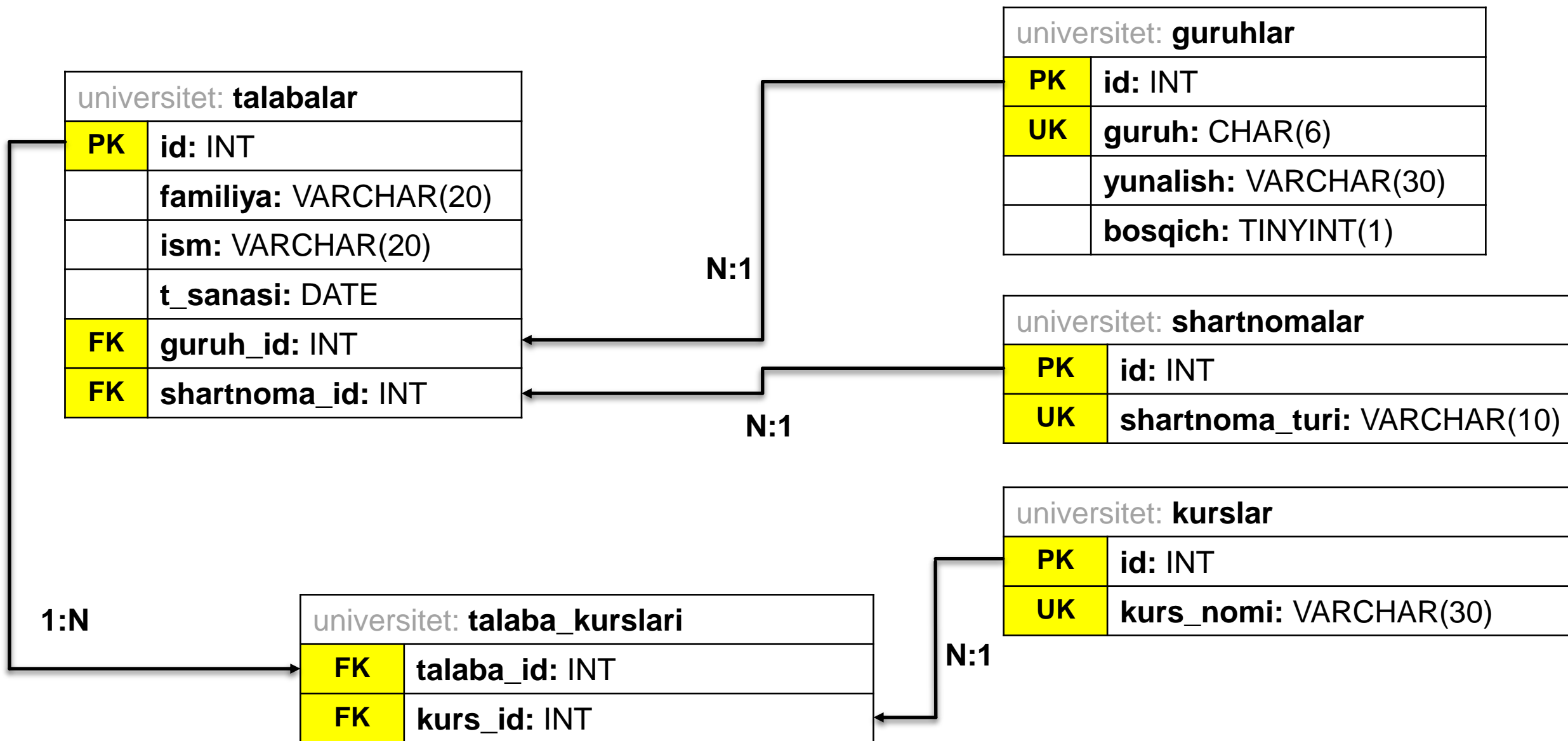
Umumiy bog'lanishlar sxemasi, jadvallarni yanada optimallashtiramiz



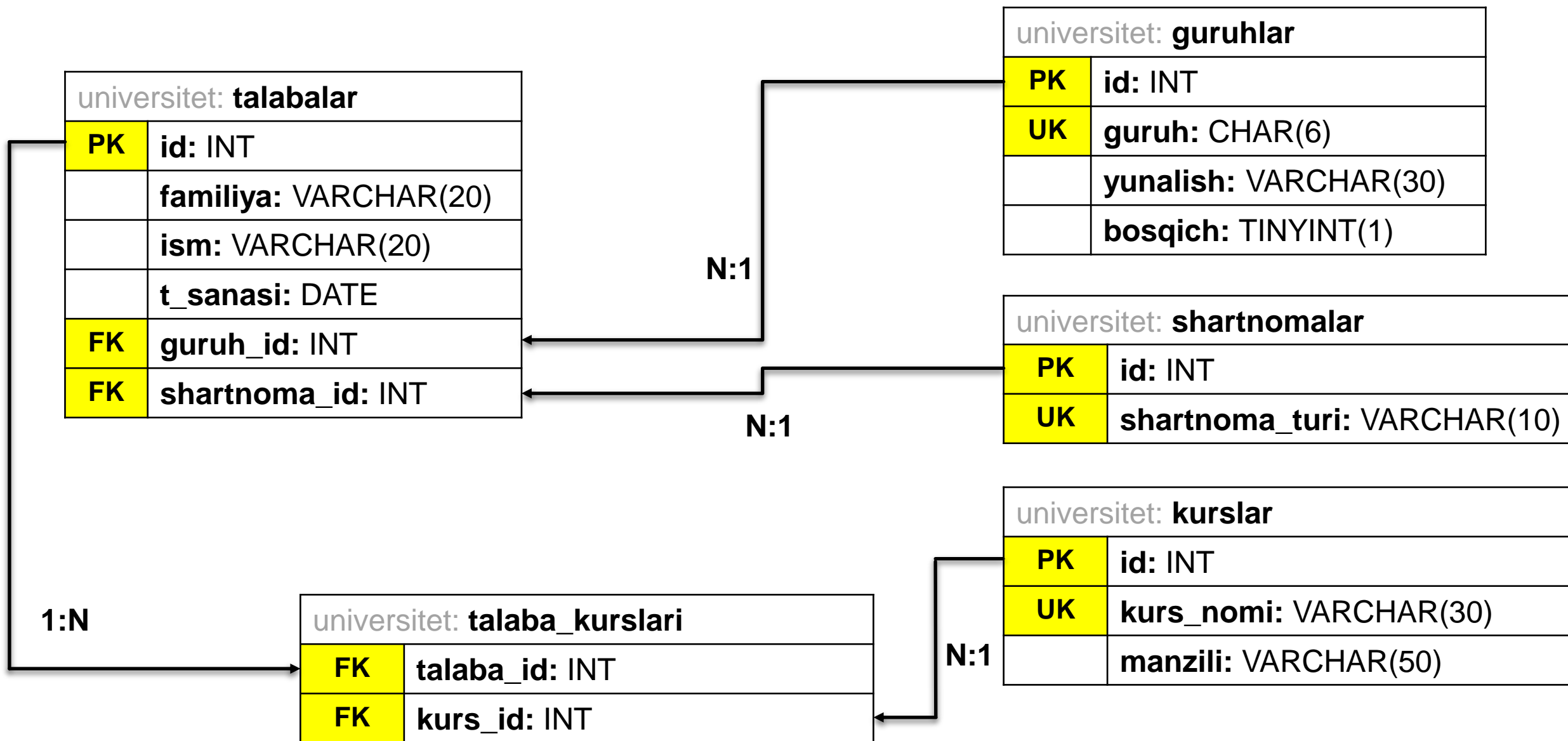
Umumiy bog'lanishlar sxemasi, jadvallarni yanada optimallashtiramiz



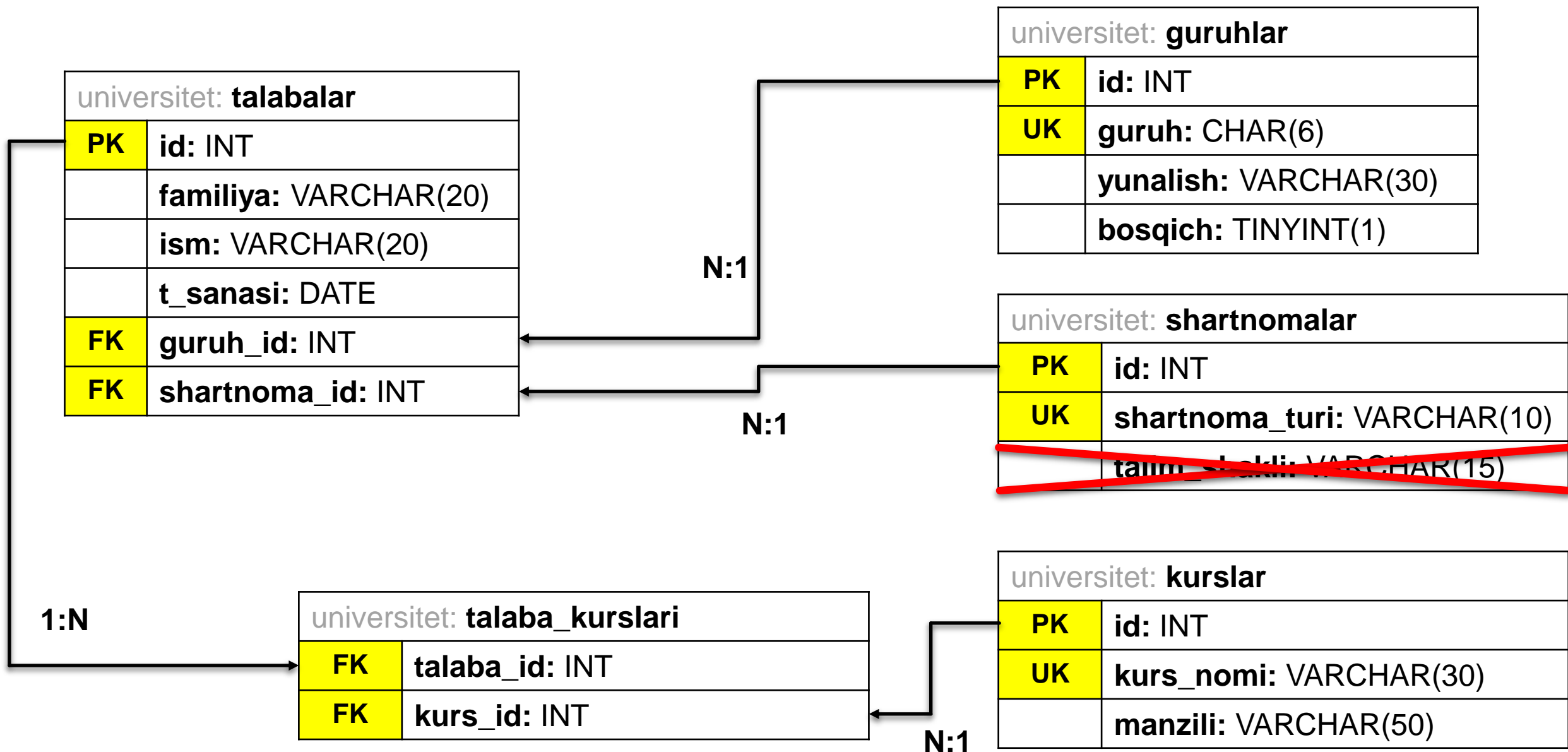
Umumiy bog'lanishlar sxemasi, jadvallarni yanada optimallashtiramiz



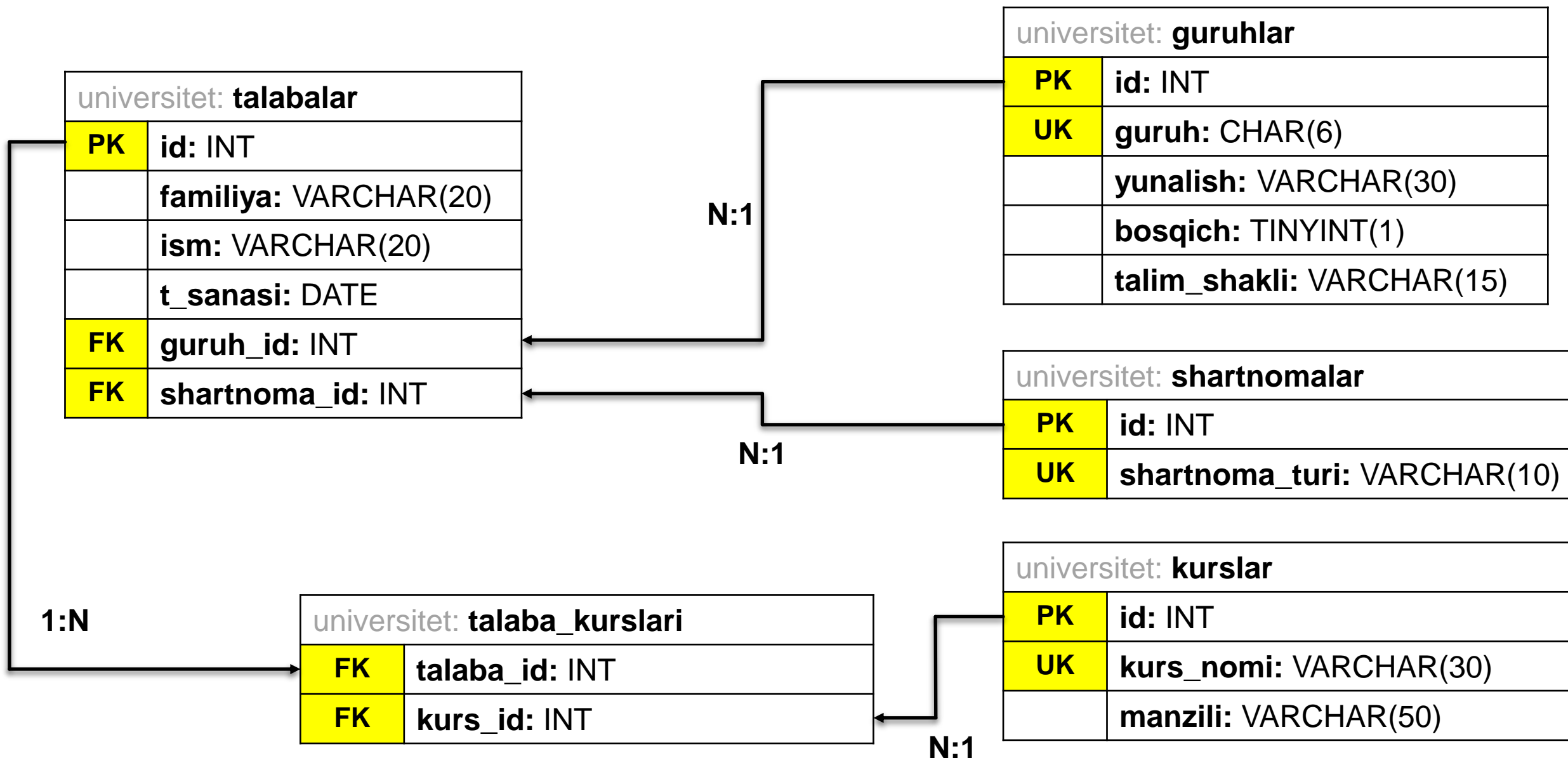
Umumiy bog'lanishlar sxemasi, jadvallarni yanada optimallashtiramiz



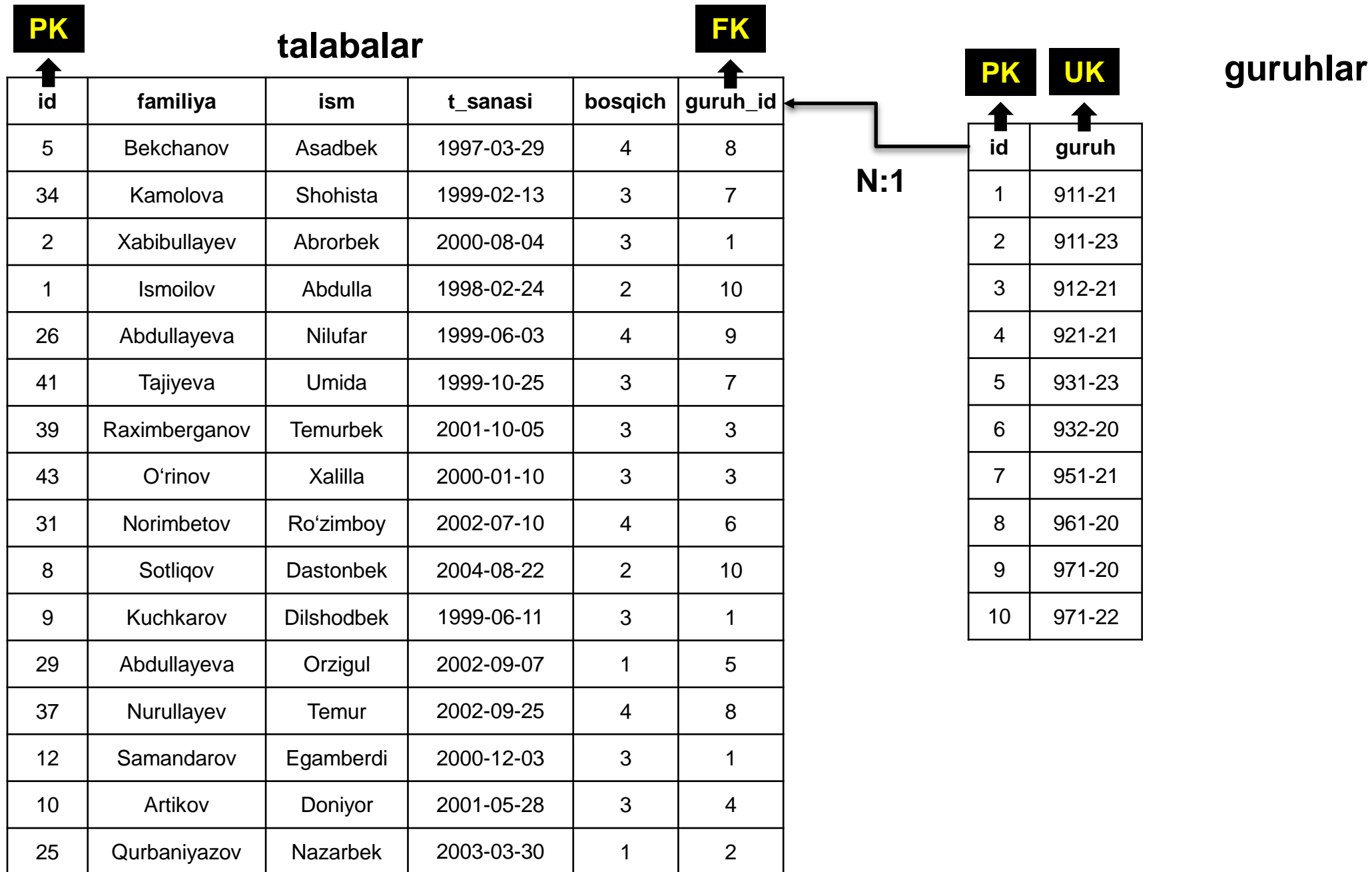
Umumiy bog'lanishlar sxemasi, jadvallarni yanada optimallashtiramiz



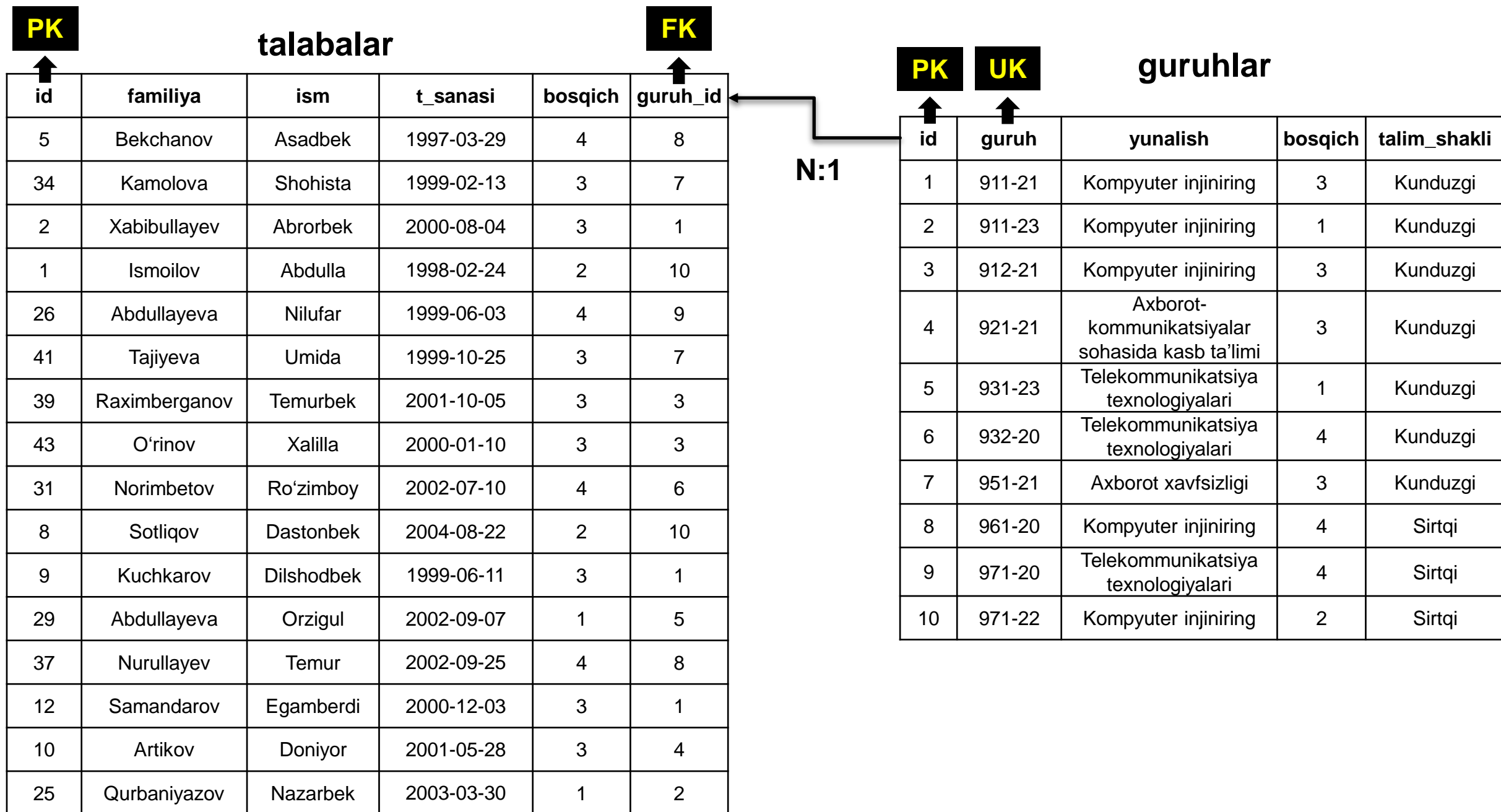
Umumiy bog'lanishlar sxemasi, jadvallarni yanada optimallashtiramiz



talabalar va guruhlar jadvallarini bog'lash



talabalar va guruhlar jadvallarini bog'lash



guruhlar jadvalini ham jadvallarga ajratamiz

<div><div>PK</div><div>UK</div></div>		guruhlar		
id	guruh	yunalish	bosqich	talim_shakli
1	911-21	Kompyuter injiniring	3	Kunduzgi
2	911-23	Kompyuter injiniring	1	Kunduzgi
3	912-21	Kompyuter injiniring	3	Kunduzgi
4	921-21	Axborot-kommunikatsiyalar sohasida kasb ta'limi	3	Kunduzgi
5	931-23	Telekommunikatsiya texnologiyalari	1	Kunduzgi
6	932-20	Telekommunikatsiya texnologiyalari	4	Kunduzgi
7	951-21	Axborot xavfsizligi	3	Kunduzgi
8	961-20	Kompyuter injiniring	4	Sirtqi
9	971-20	Telekommunikatsiya texnologiyalari	4	Sirtqi
10	971-22	Kompyuter injiniring	2	Sirtqi

guruhlar jadvalini ham jadvallarga ajratamiz

PK	UK
id	guruh
1	911-21
2	911-23
3	912-21
4	921-21
5	931-23
6	932-20
7	951-21
8	961-20
9	971-20
10	971-22

guruhlar

PK	
id	yunalish_nomi
1	Kompyuter injiniring
2	Kompyuter injiniring
3	Kompyuter injiniring
4	Axborot-kommunikatsiyalar sohasida kasb ta'limi
5	Telekommunikatsiya texnologiyalari
6	Telekommunikatsiya texnologiyalari
7	Axborot xavfsizligi
8	Kompyuter injiniring
9	Telekommunikatsiya texnologiyalari
10	Kompyuter injiniring

yunalishlar

PK	
id	bosqich
1	3
2	1
3	3
4	3
5	1
6	4
7	3
8	4
9	4
10	2

bosqichlar

PK	
Id	talim_shakli
1	Kunduzgi
2	Kunduzgi
3	Kunduzgi
4	Kunduzgi
5	Kunduzgi
6	Kunduzgi
7	Kunduzgi
8	Sirtqi
9	Sirtqi
10	Sirtqi

talim_shakllari

Jadvallarga kalit beramiz

PK	UK
id	guruh
1	911-21
2	911-23
3	912-21
4	921-21
5	931-23
6	932-20
7	951-21
8	961-20
9	971-20
10	971-22

guruhlar

PK	UK
id	yunalish_nomi
1	Kompyuter injiniring
2	Axborot-kommunikatsiyalar sohasida kasb ta'limi
3	Telekommunikatsiya texnologiyalari
4	Axborot xavfsizligi
5	Dasturiy injiniring
6	Pochta aloqasi texnologiyasi

yunalishlar

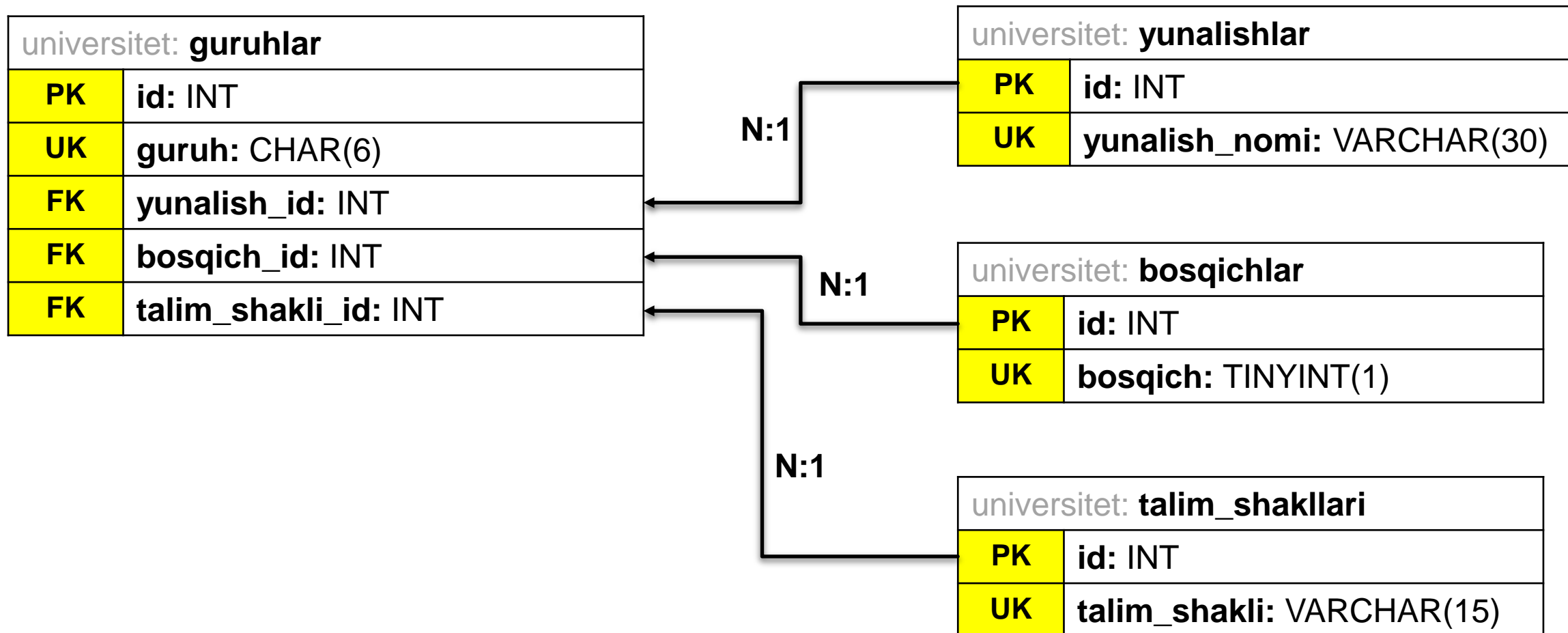
PK	UK
id	bosqich
1	1
2	2
3	3
4	4
5	5

bosqichlar

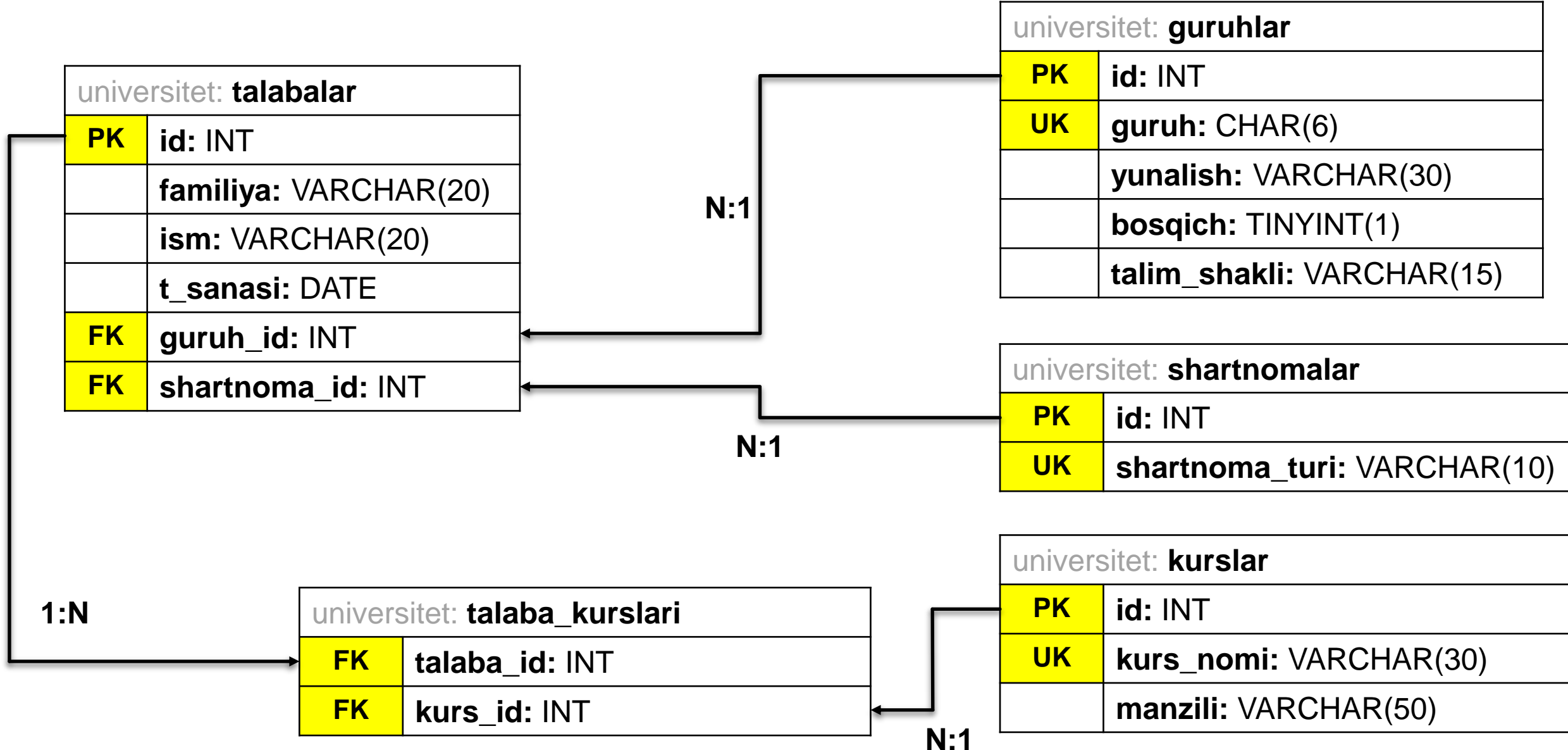
PK	UK
Id	talim_shakli
1	Kunduzgi
2	Sirtqi
3	Kechki
4	Masofaviy

talim_shakllari

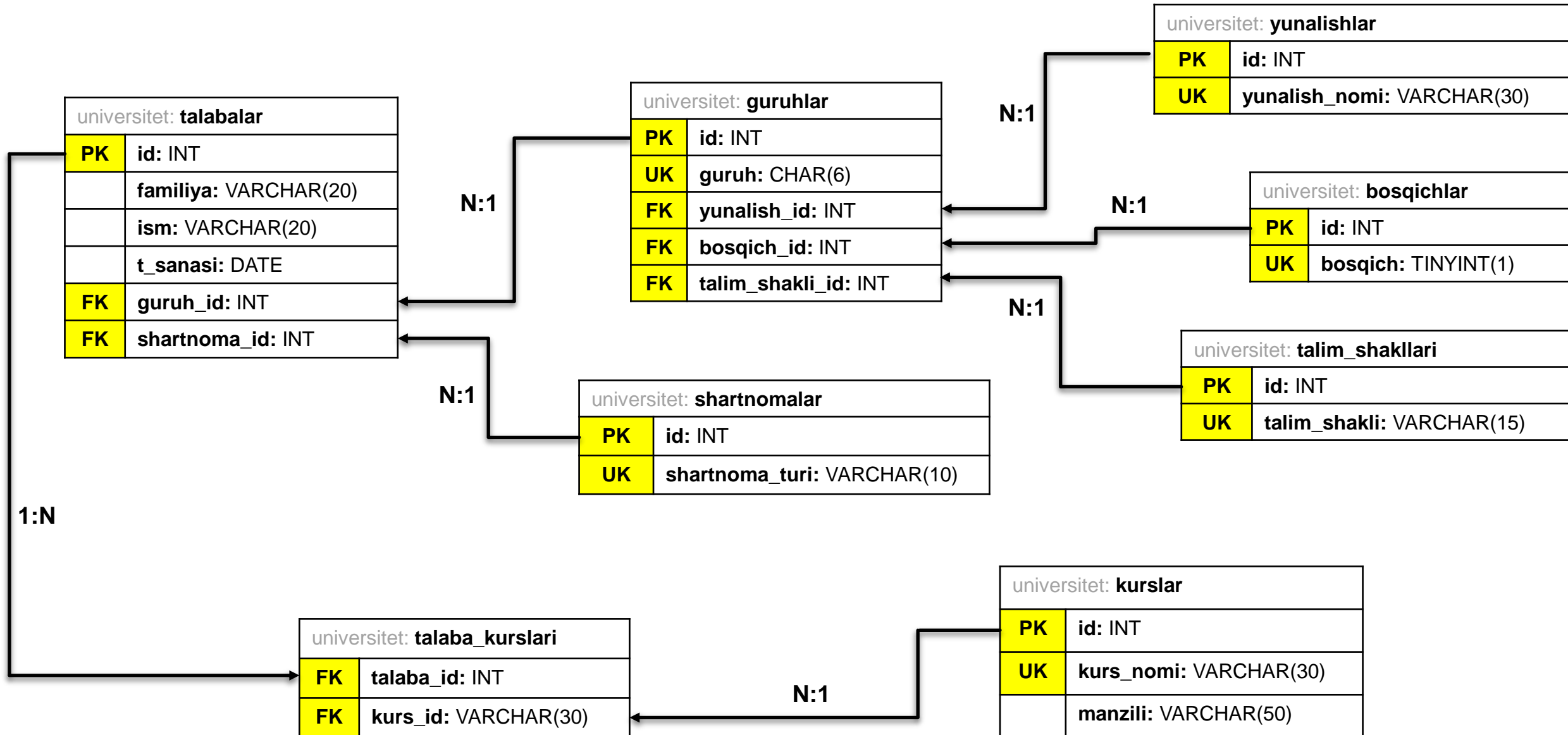
guruhlar jadvalidan ajratilgan jadvallarni birlashtiramiz



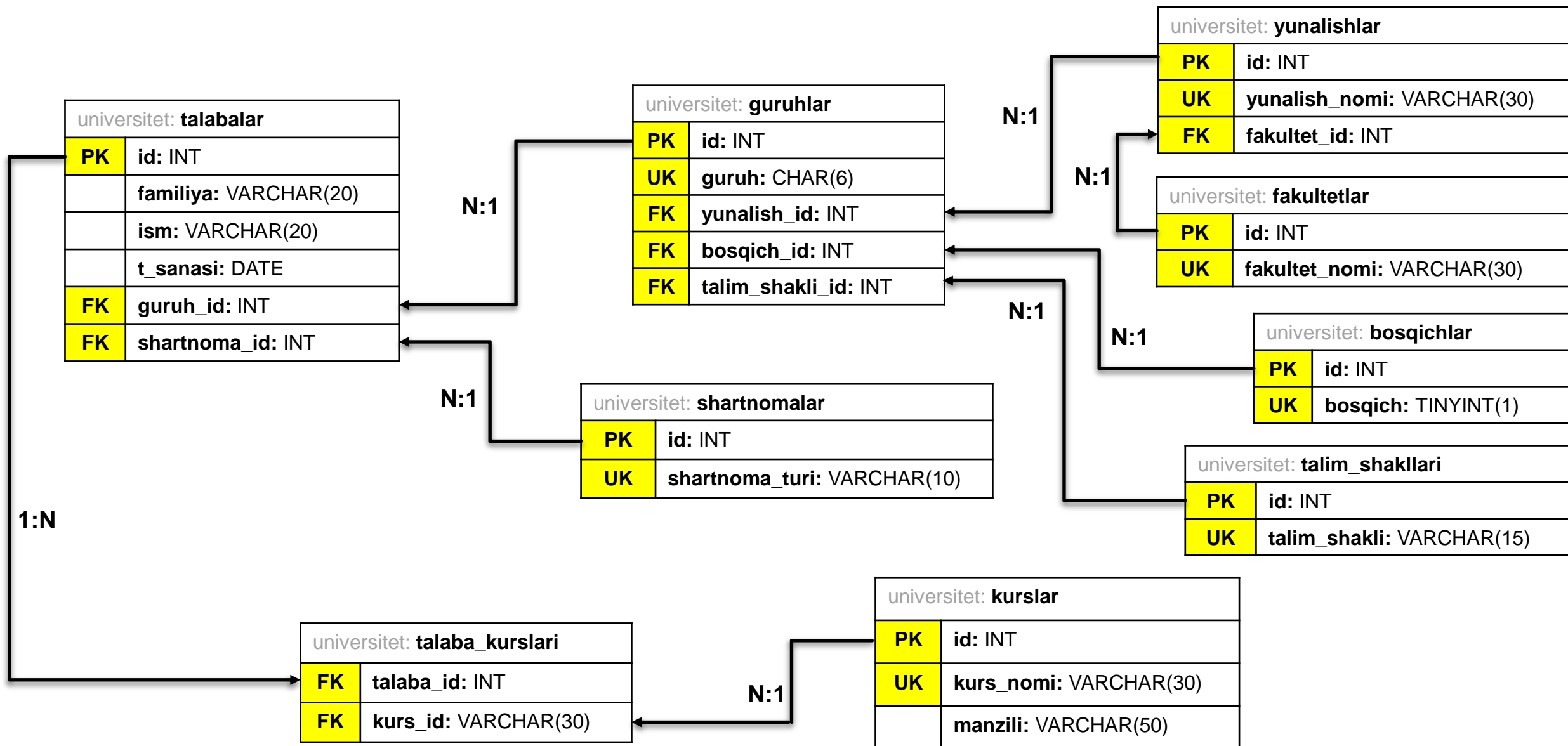
Umumiy bog'lanishlar sxemasi



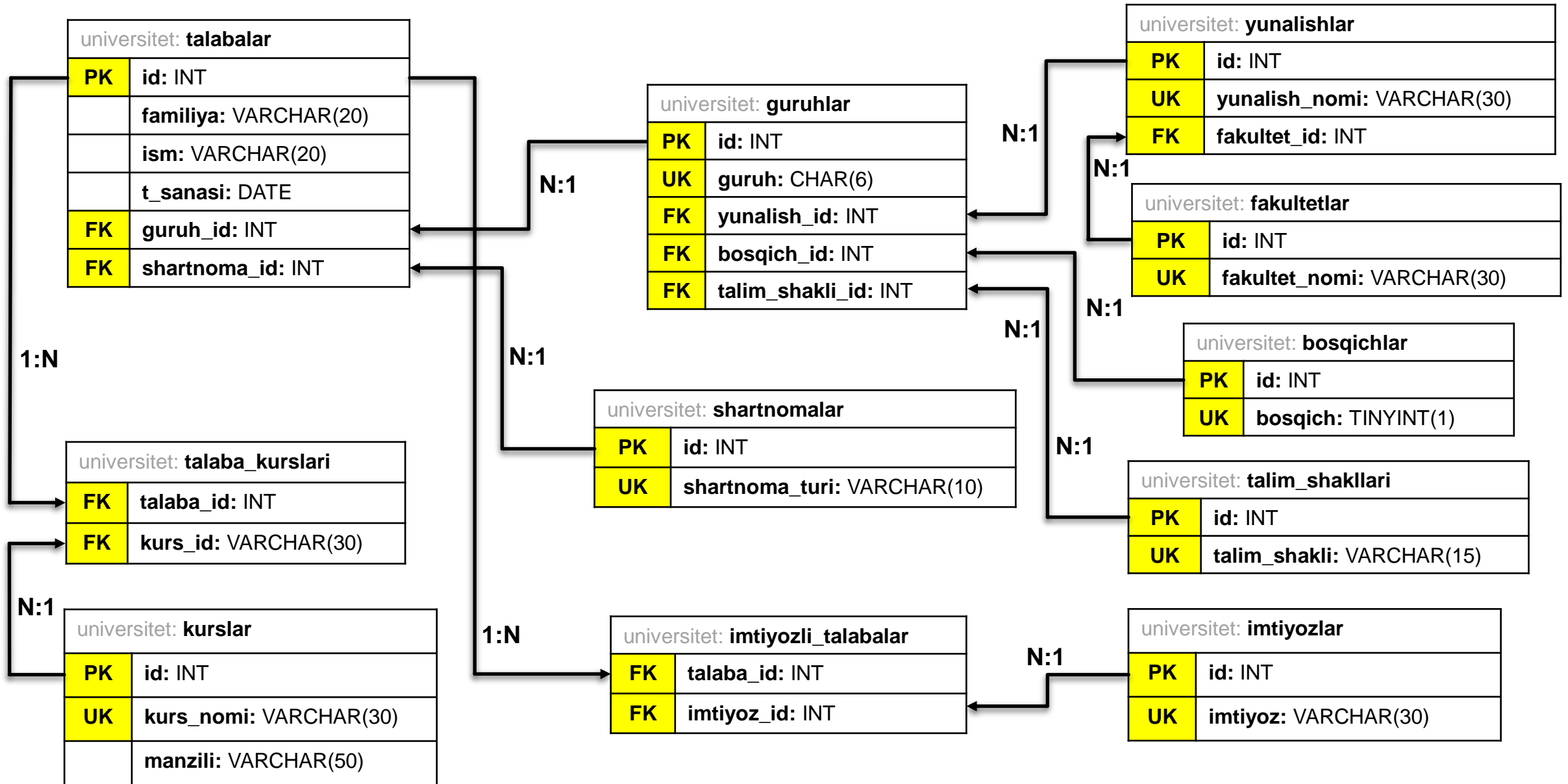
Umumiy bog'lanishlar sxemasi



Umumiy bog'lanishlar sxemasiga fakultetlar jadvalini kiritamiz



Umumiy bog'lanishlar sxemasiga imtiyozlar jadvalini kiritamiz





SAVOLLAR?