**AcadeMic – Mini World Assumption**

* There exists a “Kullanici”.

“Kullanici” has

* kullanici\_id: int (PK)
* kullanici\_tipi: int
* kullanici\_parolasi: Password
* There exists a “Kisi”. A “Kisi” is a “Kullanici”.

“Kisi” has

* kisi\_id: int (PK, FK = “Kullanici” - kullanici\_id)
* kisi\_adi: String
* kisi\_soyadi: String
* kisi\_dogumTarihi: Date
* kisi\_adresi: String
* kisi\_cinsiyeti: char(1)
* A “Kisi” may be either “Ogrenci”, “Ogretmen” or “Veli”.

“Ogrenci” has

* ogrenci\_id: int (PK, FK = “Kisi” - kisi\_id)
* sinif\_id: int (FK = “Sinif” – sinif\_id)
* sube\_id: int (FK = “Sinif” – sube\_id)

“Ogretmen” has

* ogretmen\_id: int (PK, FK = “Kisi” - kisi\_id)
* sinif\_id: int (FK = “Sinif” - sinif\_id)
* sube\_id: int (FK = “Sinif” - sube\_id)

“Veli” has

* veli\_id: int (FK = “Kisi” - kisi\_id)
* ogrenci\_id: int (FK = “Ogrenci” - ogrenci\_id)
* PK(veli\_id, ogrenci\_id)
* There exists a “Sinif”. A “Sinif” has “Sinif\_Ders\_Programi”.

“Sinif” has

* sinif\_id: int
* sube\_id: char(1)
* PK(sinif\_id, sube\_id)
* ogretmen\_id: int (FK = “Ogretmen” – ogretmen\_id)
* There exists a “Sinif\_Ders\_Programi”.

(for each “Ogrenci” in the same “Sinif”)

“Sinif\_Ders\_Programi” has

* sinif\_id: int (FK = “Sinif” – sinif\_id)
* sube\_id: char(1) (FK = “Sinif” – sube\_id)
* ders\_id: int (FK = “Ders” – ders\_id)
* PK(sinif\_id, sube\_id, ders\_id)
* There exists a “Ders”. A “Ders” has “Ders\_Programi”.

“Ders” has

* ders\_id: int (PK)
* ders\_adi: String
* ders\_icerigi: String
* ders\_katSayisi: int
* ders\_saatSayisi: int
* There exists a “Ders\_Programi”. (for each “Ders”)

“Ders\_Programi” has

* ders\_programId: int (FK = “Ders” – ders\_id)
* sinif\_id: int (FK = “Sinif” – sinif\_id)
* sube\_id: char(1) (FK = “Sinif” – sube\_id)
* ders\_gunu: int (1 or 2 or 3..)
* PK(ders\_programId, sinif\_id, sube\_id, ders\_gunu)
* ders\_tarihi: Date
* ogretmen\_id: int (PK, FK = “Ogretmen” – ogretmen\_id)
* There exists a “Ogretmen\_Ders\_Programi”. (for each “Ogretmen”)

“Ogretmen\_Ders\_Programi” has

* ogretmen\_id: int (FK = “Ogretmen” – ogretmen\_id)
* ders\_programId: int (FK = “Ders\_Programi” – ders\_programId)
* PK(ogretmen\_id, ders\_programId)
* There exists a “Agirlikli\_Ortalama”.

“Agirlikli\_Ortalama” has

* ogrenci\_id: int (PK, FK = “Ogrenci” – ogrenci\_id)
* not\_degeri: double
* There exists a “Okudugu\_Kitaplar”.

“Okudugu\_Kitaplar” has

* ogrenci\_id: int (FK = “Ogrenci” – ogrenci\_id)
* kitap\_adi: String
* kitap\_yazari: String
* PK(ogrenci\_id, kitap\_adi, kitap\_yazari)
* sayfa\_sayisi: int
* There exists a “Ders\_Duyurusu”.

A “Ders\_Duyurusu” is a “Odev”, “Quiz”, “Sinav” or “Dokuman”.

“Ders\_Duyurusu” has

* ders\_duyuruId: int (PK)
* ders\_id: int (FK = “Ders” – ders\_id)
* sinif\_id: int (FK = “Sinif” – sinif\_id)
* sube\_id: char(1) (FK = “Sinif” – sube\_id)
* PK(ders\_duyuruId, ders\_id, sinif\_id, sube\_id)
* duyuru\_tipi: int (Odev:1, Quiz:2, Sinav:3, Dokuman: 4)
* duyuru\_tarihi: Date
* There exists a “Odev”.

“Odev” has

* odev\_id: int
* ders\_id: int (FK = “Ders” – ders\_id)
* sinif\_id: int (FK = “Sinif” – sinif\_id)
* sube\_id: char(1) (FK = “Sinif” – sube\_id)
* duyuru\_tipi: int (FK = “Ders\_Duyurusu” – duyuru\_tipi)
* odev\_no: int
* PK(odev\_id, ders\_id, sinif\_id, sube\_id, duyuru\_tipi, odev\_no)
* odev\_verilisTarihi: Date
* odev\_teslimTarihi: Date
* notlandirma\_tipi: int (Odev:1, Quiz:2, Sinav:3)
* not\_yüzdesi: double
* There exists a “Quiz”.

“Quiz” has

* quiz\_id: int
* ders\_id: int (FK = “Ders” – ders\_id)
* sinif\_id: int (FK = “Sinif” – sinif\_id)
* sube\_id: char(1) (FK = “Sinif” – sube\_id)
* duyuru\_tipi: int (FK = “Ders\_Duyurusu” – duyuru\_tipi)
* quiz\_no: int
* PK(quiz\_id, ders\_id, sinif\_id, sube\_id, duyuru\_tipi, quiz\_no)
* quiz\_tarihi: Date
* notlandirma\_tipi: int
* not\_yüzdesi: double
* There exists a “Sinav”.

“Sinav” has

* sinav\_id: int
* ders\_id: int (FK = “Ders” – ders\_id)
* sinif\_id: int (FK = “Sinif” – sinif\_id)
* sube\_id: char(1) (FK = “Sinif” – sube\_id)
* duyuru\_tipi: int (FK = “Ders\_Duyurusu” – duyuru\_tipi)
* sinav\_no: int
* PK(sinav\_id, ders\_id, sinif\_id, sube\_id, duyuru\_tipi, sinav\_no)
* sinav\_tarihi: Date
* notlandirma\_tipi: int
* not\_yüzdesi: double
* There exists a “Dokuman”.

“Dokuman” has

* dokuman\_id: int
* ders\_id: int (FK = “Ders” – ders\_id)
* sinif\_id: int (FK = “Sinif” – sinif\_id)
* sube\_id: char(1) (FK = “Sinif” – sube\_id)
* dokuman\_no: int
* PK(dokuman\_id, ders\_id, sinif\_id, sube\_id, dokuman\_no)
* dokuman\_tarihi: Date
* dokuman\_basligi: String
* dokuman\_icerigi: String
* dokuman\_url: String
* duyuru\_tipi: int (FK = “Ders\_Duyurusu” – duyuru\_tipi)
* There exists a “Ders\_Notu”.

“Ders\_Notu” has

* ogrenci\_id: int (FK = “Ogrenci” – ogrenci\_id)
* ders\_id: int (FK = “Ders” – ders\_id)
* notlandirma\_tipi: int (Ders Geneli: 0, Odev:1, Quiz:2, Sinav:3)
* notlandirma\_no: int (Ders Geneli:0, (odev, quiz, sinav number: 1, 2, …))
* PK(ogrenci\_id, ders\_id, notlandirma\_tipi, notlandirma\_no)
* not\_degeri: double
* There exists a “Sinif\_Duyurusu”.

“Sinif\_Duyurusu” has

* sinif\_duyuruId: int (PK)
* sinif\_id: int (FK = “Sinif” – sinif\_id)
* sube\_id: char(1) (FK = “Sinif” – sube\_id)
* PK(sinif\_duyuruId, sinif\_id, sube\_id)
* duyuru\_tipi: int (Toplanti:1, Etkinlik:2)
* duyuru\_basligi: String
* duyuru\_icerigi: String
* duyuru\_tarihi: Date
* There exists a “Toplanti”.

“Toplanti” has

* toplanti\_id: int (FK = “Sinif\_Duyurusu” - sinif\_duyuruId)
* duyuru\_tipi: int (FK = “Sinif\_Duyurusu” – duyuru\_tipi)
* sinif\_id: int (FK = “Sinif” – sinif\_id)
* sube\_id: int (FK = “Sinif” – sube\_id)
* toplanti\_no: int
* PK(toplanti\_id, duyuru\_tipi, sinif\_id, sube\_id, toplanti\_no)
* toplanti\_tarihi: Date
* There exists a “Etkinlik”.

“Etkinlik” has

* etkinlik\_id: int (FK = “Sinif\_Duyurusu” - sinif\_duyuruId)
* duyuru\_tipi: int (FK = “Sinif\_Duyurusu” – duyuru\_tipi)
* sinif\_id: int (FK = “Sinif” – sinif\_id)
* sube\_id: int (FK = “Sinif” – sube\_id)
* etkinlik\_no: int
* PK(etkinlik\_id, duyuru\_tipi, sinif\_id, sube\_id, etkinlik\_no)
* etkinlik\_tarihi: Date