

data type

- names ~~Strings~~
- Age ~~Integer~~

data type

- names/numbers Strings
- Age/number Integer
but ~~no~~ decimal

String data type computer can't calculate.

Integer can calculate by (+, -, x) like things can.

- seven degree mean seven attributes

÷ Relational Schema

Structure + Rules that describe how data is stored and related in a database

Student (Student ID, Name, Age, Class ID)

Class (Class ID, Class name, Teacher ID)

Teacher (Teacher ID, Teacher name, subject)

- Student ID - Primary key in Student
- Class ID - Foreign key in Student
- Teacher ID - Foreign key in Class

Student ~~own~~ table ~~has~~ primary key ~~on~~ @25 Student ID and Name ~~own~~ ~~table~~. ~~Class~~ ~~ID~~ ~~table~~ primary key ~~on~~ ~~ID~~. Name ~~table~~ primary key ~~on~~ ~~ID~~. Student ID and Name ~~was~~ ~~own~~ ~~table~~ ~~primary~~ ~~key~~ ~~on~~ ~~ID~~.

~~Null~~ ^{value}
Null is a may not apply to a tuple, a special value, unknown (empty value is null)

~~to~~ \leftarrow (Name

Degree of Relation - number of attributes

Domain - the set of valid/allowed values for an attribute

Relation intension = (schema R) - structure (what the table looks like)

Relation extension = (Content) (what the table contains right now)
relation state $r(R)$

example for relation intension (schema R)

Student (Student ID, Name, Age)

example for Relation Extension ($r(R)$)

Student ID	Name	Age
256	Tom	20
232	Cruz	18
381	Anna	17