(example, of quertes) RELATIONAL ALGEBRA Taxpajors TM parkon & Taxpajors TTP.X 1 Persone P - Targayon T for son (/ · Affers of fimilies where it least one member loss sorname = 'Rossi' 4) F. address 6 p. survane = ' ROSSi' Families F X Perfons P F.P1) = P.Pi) NOTE projection T performs deplicates elimination 3) (or also) 2) (or differently) TI FID. address F. aldress finities F M - GSVRMANE= 'ROSSI' Frm. lies F X Persons P f. (;); (. (;) AND F. SUrname = 'Rossi' You au use olso à semijoin X meaning that I just want to filter my it is basically a join followed by a projection

- · Families where no families have

 1) 7 3 p E F. p. surname = 'Rossi' this is a universal condition

 2) 3 p E F. p. surname f 'Rossi' this is mexistential condition

 ore not the same

 TV an F
- · How to find of FI7] pEF p. Surwan = 'Rossi'}
 which is the same as of FIV pEF p. survan = 'Rossi'}

FAMILIES

F. FID=P.PID

FAMILIES F

G SUMMER \$ | Rossil

GROUP BY

f SIDZ (COUNT (*),
nin (GRADE),
MAXIGRADE)

EXAM

thus is a

projection

Sct eperations

We read "for each student in Exam
apply count, mingrate, max-grate"
Grouping is a more complex projections to
where we can also compute additional