




SQL

Aggregation

SQL: Aggregation

```
select  $A_1, A_2, \dots, A_n$   
from  $R_1, R_2, \dots, R_m$   
where condition
```



“Aggregation” functions
over values in multiple rows:
 $\min, \max, \text{sum}, \text{avg}, \text{count}$

SQL: Aggregation

```
Select A1, A2, ..., An
From   R1, R2, ..., Rm
Where  condition
Group By columns
Having condition
```

“Aggregation” functions
over values in multiple rows:
min, max, sum, avg, count

New clauses

Demo: simple college admissions database

College(cName, state, enrollment)

Student(sID, sName, GPA, sizeHS)

Apply(sID, cName, major, decision)