



# DATABASE SYSTEM LABS

## – BASIC SQL III

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# OBJECTIVES

- View
- Advanced aggregation



View

# VIEW

- A view of instructors without their salary

**create view *faculty* as**

**select *ID, name, dept\_name***

**from *instructor***

- Find all instructors in the Biology department

**select *name***

**from *faculty***

**where *dept\_name* = 'Biology'**



# VIEW

- Create a view of department salary totals

```
create view departments_total_salary(dept_name, total_salary)
as
select dept_name, sum (salary)
from instructor
group by dept_name;
```

# Advanced aggregation

# ADVANCED AGGREGATION

- 对学院根据预算进行排序，并给出排名
- `select dept_name, building, budget, rank() over (order by budget desc) as s_rank`

`from department`  
`order by s_rank;`

	dept_name	building	budget	s_rank
▶	Physics	Wrigley	942162.76	1
	Finance	Candlestick	866831.75	2
	Psychology	Thompson	848175.04	3
	Cybernetics	Mercer	794541.46	4
	Math	Brodhead	777605.11	5
	Athletics	Bronfman	734550.70	6
	History	Taylor	699140.86	7
	Biology	Candlestick	647610.55	8
	Astronomy	Taylor	617253.94	9
	English	Palmer	611042.66	10
	Languages	Linderman	601283.60	11
	Pol. Sci.	Whitman	573745.09	12



# ADVANCED AGGREGATION

- 对每个建筑内的学院根据预算进行排序，并给出排名

```
select dept_name, building, budget, rank() over (  
    partition by building order by budget desc) as s_rank  
from department  
order by building, s_rank;
```

dept_name	building	budget	s_rank
Elec. Eng.	Main	276527.61	1
Cybernetics	Mercer	794541.46	1
English	Palmer	611042.66	1
Geology	Palmer	406557.93	2
Mech. Eng.	Rauch	520350.65	1
Accounting	Saucon	441840.92	1
History	Taylor	699140.86	1
Astronomy	Taylor	617253.94	2
Statistics	Taylor	395051.74	3





# THANKS !

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