# Kenneth Bentley

# Data Analytics-2

- -- Sample questions:
- -- 1. students with the highest marks in Unit 4

SELECT \* FROM student\_marks ORDER BY unit4 DESC;

ata O	utput Explain	Messages Notifi	ications				
4	id [PK] integer	student_reg_id integer	student_id integer	unit2 integer	unit3 integer	unit4 integer	unit5 integer
1	704	1556	704	90	100	100	96
2	970	1822	970	90	98	100	89
3	109	961	109	96	97	100	100
4	428	1280	428	89	96	100	98
5	48	900	48	87	97	100	88

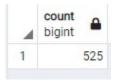
-- 2. students scored between 89 and 100 unit4

SELECT \* FROM student\_marks WHERE unit4 BETWEEN 89 AND 100 ORDER BY unit4;

Data (	Output Explai	in Messages
4	student_id integer	unit4 integer
1	3	99
2	4	1 89
3	6	93
4	7	97
5	8	92

- -- Open ended questions:
- -- Take a closer look at the tables that you created and come up with 10 different scenarios/ questions and from SQL
- -- 1. How many males are in the class:

SELECT COUNT(\*) FROM student WHERE gender='Male';



-- 2. How many females are in the class:

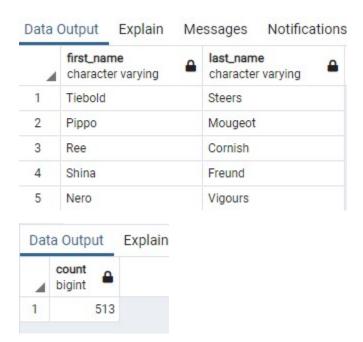
SELECT COUNT(\*) FROM student WHERE gender='Female';



-- 3. Which students and how many prefer hardcopy books?

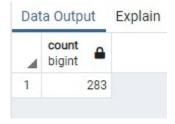
SELECT first\_name, last\_name FROM student WHERE book\_preference\_hardcopy=true;

SELECT COUNT(book\_preference\_hardcopy) FROM student WHERE book\_preference\_hardcopy=true;



-- 4. How many students made less than 90 on Unit 2?

SELECT COUNT(unit2) FROM student\_marks WHERE unit2<90;



### -- 5. Which students scored 100 on Unit 5:

SELECT student.first\_name, student.last\_name, student\_marks.unit5 FROM student\_marks
INNER JOIN student ON student\_marks.student\_id=student.id WHERE unit5=100;

4	first_name character varying	last_name character varying	unit5 integer
1	Shina	Freund	100
2	Gian	Jaskowicz	100
3	Ki	Kavanagh	100
4	Rori	Bridger	100
5	Ely	Spurrier	100

## -- 6. Which students have last names that begin with Be

SELECT first\_name, last\_name FROM student WHERE last\_name LIKE 'Be%';

Data	Output Explain	Messages Notifications
	first_name character varying	■ last_name character varying
1	Abel	Beeching
2	Amy	Belhomme
3	Shelia	Beardsley
4	Travis	Benallack
5	Louisa	Beteriss

## -- 7. Which students scored greater than 95 on all units?

### SELECT

student.first\_name, student.last\_name, student\_marks.unit2, student\_marks.unit3, student\_marks.unit4, student\_marks.unit5

FROM student\_marks

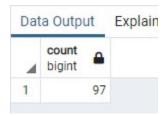
INNER JOIN student ON student\_marks.student\_id=student.id
WHERE unit2>95 AND unit3>95 AND unit4>95 AND unit5>95;



# --8. How many students scored perfect on Unit 3?

SELECT COUNT(student\_marks.unit3) FROM student\_marks INNER JOIN student ON student\_marks.student\_id=student.id

WHERE student marks.unit3=100;



#### -- Females?

SELECT COUNT(student\_marks.unit3) FROM student\_marks INNER JOIN student ON student\_marks.student\_id=student.id

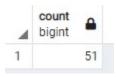
WHERE student\_marks.unit3=100 and student.gender='Female';



#### -- Males?

SELECT COUNT(student\_marks.unit3) FROM student\_marks INNER JOIN student ON student\_marks.student\_id=student.id

WHERE student\_marks.unit3=100 and student.gender='Male';



--9. What was the average score of each Unit?

### **SELECT**

ROUND(AVG(unit2),2) AS "UNIT 2 AVERAGE",

ROUND(AVG(unit3),2) AS "UNIT 3 AVERAGE",

ROUND(AVG(unit4),2) AS "UNIT 4 AVERAGE",

ROUND(AVG(unit5),2) AS "UNIT 5 AVERAGE"

## FROM student\_marks;



--10. What are the names and email addresses of the students that scored lowest on unit 4?

SELECT MIN(unit4) FROM student\_marks;

SELECT student.first\_name, student.last\_name, student.email, student\_marks.unit4 FROM student\_marks

INNER JOIN student ON student\_marks.student\_id=student.id WHERE unit4=82;

Data Output Explain Messages Notifications					
4	first_name character varying	last_name character varying	email character varying	unit4 integer	
1	Pippo	Mougeot	pmougeot1@apache.org	82	
2	Susy	Widdison	swiddison8@mac.com	82	
3	Montague	Dunkley	mdunkleyj@sohu.com	82	
4	Cointon	Brownell	cbrownell15@google.nl	82	
5	Catina	Rysdale	crysdale1j@guardian.c	82	