مشروع ۲ - دورة SQL2

اسم المتدرب: مريم الردادي

اسم المشرف: غادة المطيري

## متطلبات المشروع: جدول الطلاب:

student_id	student_name	birth_date	gender	enrollment_date	student_email	student_level	track	GPA
1	Nora	2005-12-31 00:00:00	F	2014-09-11 00:00:00	nora@gmail.com	1	science	76
2	Maryam	2006-12-31 00:00:00	F	2009-09-11 00:00:00	maryam@gmail.com	3	science	66
3	Shahad	2001-12-31 00:00:00	F	2011-09-11 00:00:00	shahad@gmail.com	2	science	89
4	Mohammed	1999-02-01 00:00:00	M	2009-09-11 00:00:00	mohammed@gmail.com	4	humanities	87
5	Abdulaziz	2007-12-31 00:00:00	M	2006-09-11 00:00:00	abdulaziz@gmail.com	5	science	90
6	Rashed	2010-12-31 00:00:00	M	2006-09-11 00:00:00	rashed@gmail.com	1	science	92
7	Saud	2005-12-31 00:00:00	M	2011-09-11 00:00:00	nora@gmail.com	3	humanities	62
8	Nora	2010-12-31 00:00:00	F	2009-09-11 00:00:00	nora@gmail.com	4	science	58
9	Sama	2006-12-31 00:00:00	F	2014-09-11 00:00:00	sama@gmail.com	1	humanities	97
10	Afnan	2010-12-31 00:00:00	F	2014-09-11 00:00:00	afnan@gmail.com	6	science	100
11	Fatimah	2012-12-31 00:00:00	F	2014-09-11 00:00:00	fatimah@gmail.com	1	science	76
12	Samar	2012-12-31 00:00:00	F	2014-09-11 00:00:00	samar@gmail.com	1	humanities	63
13	Raghad	2012-12-31 00:00:00	F	2014-09-11 00:00:00	raghad@gmail.com	1	science	76
14	Rana	2012-12-31 00:00:00	F	2014-09-11 00:00:00	rana@gmail.com	1	science	53
15	Asmaa	2012-12-31 00:00:00	F	2009-09-11 00:00:00	asmaa@gmail.com	4	humanities	62
16	Abrar	2011-12-31 00:00:00	F	2014-09-11 00:00:00	abrar@gmail.com	6	science	100
17	Sara	2012-12-31 00:00:00	F	2014-09-11 00:00:00	sara@gmail.com	1	humanities	98
18	Majid	2010-12-31 00:00:00	M	2014-09-11 00:00:00	majid@gmail.com	1	science	76
19	Saeed	2005-12-31 00:00:00	M	2011-09-11 00:00:00	saeed@gmail.com	6	humanities	99
20	Aziz	2004-12-31 00:00:00	M	2014-09-11 00:00:00	aziz@gmail.com	1	science	95
21	Abdullah	2012-12-31 00:00:00	M	2014-09-11 00:00:00	abdullah@gmail.com	1	science	76
22	Khalid	2012-12-31 00:00:00	M	2014-09-11 00:00:00	khalid@gmail.com	1	humanities	95
23	Rashed	2012-12-31 00:00:00	M	2014-09-11 00:00:00	rashed@gmail.com	1	science	57
24	Amal	2008-12-31 00:00:00	F	2008-09-11 00:00:00	amal@gmail.com	5	science	78
25	saud	2012-12-31 00:00:00	M	2014-09-11 00:00:00	saud@gmail.com	1	humanities	99
26	Mohammed	2012-12-31 00:00:00	M	2014-09-11 00:00:00	mohammed@gmail.com	6	science	100
27	Maryam	2008-12-31 00:00:00	F	2006-09-11 00:00:00	maryam@gmail.com	3	humanities	89
28	Dania	2012-12-31 00:00:00	F	2014-09-11 00:00:00	dania@gmail.com	1	science	86
29	Shahad	2011-12-31 00:00:00	F	2014-09-11 00:00:00	shahad@gmail.com	1	science	73
30	Ahmed	2012-12-31 00:00:00	М	2014-09-11 00:00:00	ahmed@gmail.com	1	science	93
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

• إنشاء جدول للطلاب المتفوقين من جدول الطلاب، بحيث يحتوي هذا الجدول على بيانات الطلاب الذي يكون معدلهم التراكمي أعلى من ٩٠.

```
/* create a new table containing student records
with GPA > 90 */

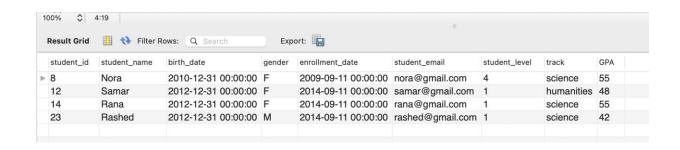
CREATE TABLE Excellent_Students
SELECT * FROM Student
WHERE GPA > 90;

SELECT * FROM Excellent_Students;
```

student_id	student_name	birth_date	gender	enrollment_date	student_email	student_level	track	GPA
6	Rashed	2010-12-31 00:00:00	M	2006-09-11 00:00:00	rashed@gmail.com	1	science	92
9	Sama	2006-12-31 00:00:00	F	2014-09-11 00:00:00	sama@gmail.com	1	humanities	97
10	Afnan	2010-12-31 00:00:00	F	2014-09-11 00:00:00	afnan@gmail.com	6	science	10
16	Abrar	2011-12-31 00:00:00	F	2014-09-11 00:00:00	abrar@gmail.com	6	science	10
17	Sara	2012-12-31 00:00:00	F	2014-09-11 00:00:00	sara@gmail.com	1	humanities	98
19	Saeed	2005-12-31 00:00:00	M	2011-09-11 00:00:00	saeed@gmail.com	6	humanities	99
20	Aziz	2004-12-31 00:00:00	M	2014-09-11 00:00:00	aziz@gmail.com	1	science	95
22	Khalid	2012-12-31 00:00:00	M	2014-09-11 00:00:00	khalid@gmail.com	1	humanities	95
25	saud	2012-12-31 00:00:00	M	2014-09-11 00:00:00	saud@gmail.com	1	humanities	99
26	Mohammed	2012-12-31 00:00:00	M	2014-09-11 00:00:00	mohammed@gmail.com	6	science	10
30	Ahmed	2012-12-31 00:00:00	M	2014-09-11 00:00:00	ahmed@gmail.com	1	science	93

• إنشاء جدول للطلاب الغير مجتازين من جدول الطلاب، بحيث يحتوي هذا الجدول على بيانات الطلاب الذي يكون معدلهم التراكمي أقل من ٦٠.

```
15 • CREATE TABLE Failed_Students
16 SELECT * FROM Student
17 WHERE GPA < 60;
18
19 • SELECT * FROM Failed_Students;
```



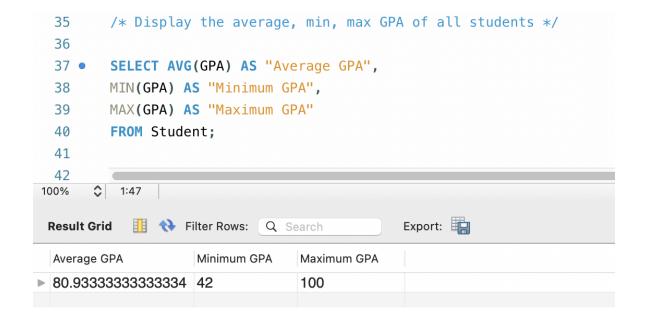
## • عرض أسماء الطلاب التي تبدأ بحرف .A.

	22	<pre>/* Display student names starting with A */</pre>
	23	
	24 •	SELECT student_name FROM Student
	25	<pre>WHERE student_name LIKE 'A%';</pre>
	26	
	27	
10	00%	1:31
	Dogult Cris	Typert, Hi
- 1	Result Grid	d 🔢 🛟 Filter Rows: Q Search Export: 🔄
_		
_	student_n	
		ame
	student_n	ame
	student_n	ame
	student_n Abdulazi Afnan	ame
	student_n Abdulazi Afnan Asmaa	ame
	student_n Abdulazi Afnan Asmaa Abrar	ame iz
	student_n Abdulazi Afnan Asmaa Abrar Aziz	ame iz
	student_n Abdulazi Afnan Asmaa Abrar Aziz Abdullah	ame iz

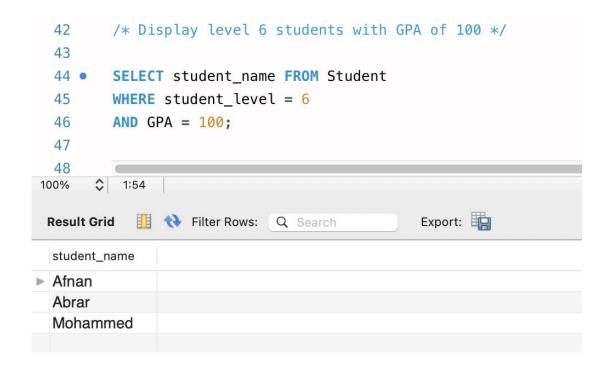
## • عرض أسماء الطلاب التي تحتوي أسمائهم على أربع خانات.

	isplay student names that are 4 letters long */
	CT student_name FROM Student
	_
	E student_name LIKE '';
33	
100% 🗘 1:34	
Result Grid	Filter Rows: Q Search Export:
Result of the	The Nows.
student_name	
Nora	
Saud	
Nora	
Nora Sama	
Sama	
Sama Rana	
Sama Rana Sara	
Sama Rana Sara Aziz	

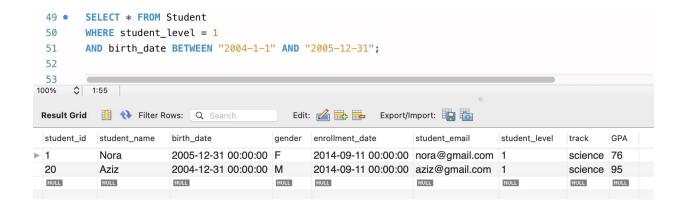
• تطبيق Aggregate functions ,MAX ,AVG) على المعدل التراكمي للطالب مع إضافة تسمية واضحة للناتج.



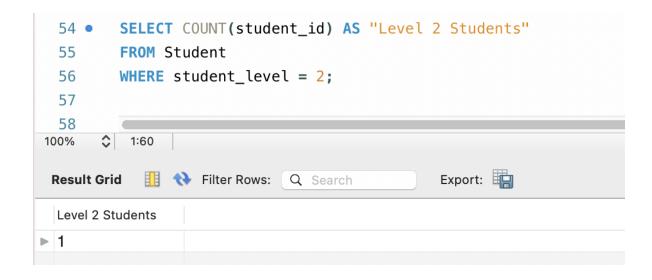
حصر وعرض أسماء الطلاب المتفوقين في المستوى السادس الحاصلين على معدل تراكمي يساوي 100



• عرض الطلاب اللذين في المستوى الأول وأعمارهم بين ١٥ و ١٦ سنة.



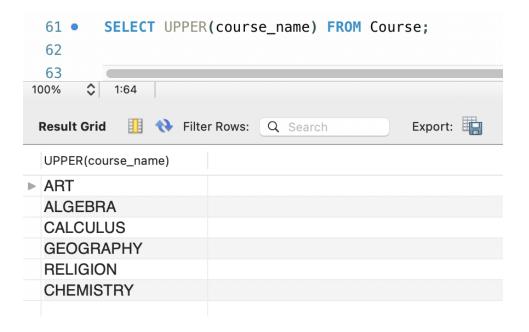
• عرض عدد الطلاب الموجودين بالمستوى ٢.



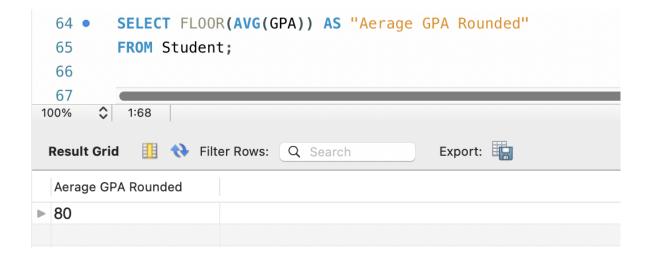
• استعراض مسارات الطلاب في المدرسة بدون تكرار.

•	
59	
60	
61	
100% 🗘 37:58	
Result Grid Filter Rows: Q Search Export: track	
science humanities	

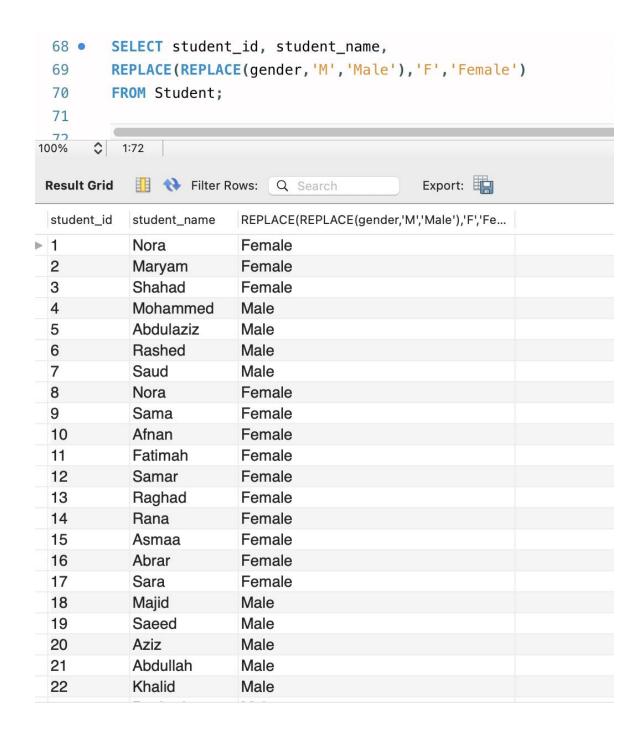
• عرض أسماء المواد ويتم عرض الكلمات بالأحرف الكبيرة.



• عرض المتوسط الحسابي للمعدل التراكمي وقرب الرقم لأقرب أصغر عدد (باستخدام rumeric ... functions).



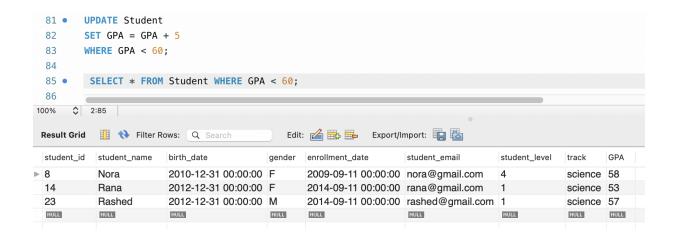
• تبديل جميع الصفوف من جدول الطلاب التي تحتوي على الجنس F إلى Female، و M إلى string functions، و M الم



• تحديث المعدل التراكمي للطلاب الذي معدلهم التراكمي أقل من ٦٠ وزيادة معدلهم بخمس درحات.

## قبل:

student_id	student_name	birth_date	gender	enrollment_date	student_email	student_level	track	GPA
7	Saud	2005-12-31 00:00:00	M	2011-09-11 00:00:00	nora@gmail.com	3	humanities	57
8	Nora	2010-12-31 00:00:00	F	2009-09-11 00:00:00	nora@gmail.com	4	science	53
14	Rana	2012-12-31 00:00:00	F	2014-09-11 00:00:00	rana@gmail.com	1	science	48
23	Rashed	2012-12-31 00:00:00	M	2014-09-11 00:00:00	rashed@gmail.com	1	science	52
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL
	7 8 14 23	7 Saud 8 Nora 14 Rana 23 Rashed	7 Saud 2005-12-31 00:00:00 8 Nora 2010-12-31 00:00:00 14 Rana 2012-12-31 00:00:00 23 Rashed 2012-12-31 00:00:00	7 Saud 2005-12-31 00:00:00 M 8 Nora 2010-12-31 00:00:00 F 14 Rana 2012-12-31 00:00:00 F 23 Rashed 2012-12-31 00:00:00 M	7 Saud 2005-12-31 00:00:00 M 2011-09-11 00:00:00 8 Nora 2010-12-31 00:00:00 F 2009-09-11 00:00:00 14 Rana 2012-12-31 00:00:00 F 2014-09-11 00:00:00 23 Rashed 2012-12-31 00:00:00 M 2014-09-11 00:00:00	7 Saud 2005-12-31 00:00:00 M 2011-09-11 00:00:00 nora@gmail.com 8 Nora 2010-12-31 00:00:00 F 2009-09-11 00:00:00 nora@gmail.com 14 Rana 2012-12-31 00:00:00 F 2014-09-11 00:00:00 rana@gmail.com 23 Rashed 2012-12-31 00:00:00 M 2014-09-11 00:00:00 rashed@gmail.com	7 Saud 2005-12-31 00:00:00 M 2011-09-11 00:00:00 nora@gmail.com 3 8 Nora 2010-12-31 00:00:00 F 2009-09-11 00:00:00 nora@gmail.com 4 14 Rana 2012-12-31 00:00:00 F 2014-09-11 00:00:00 rana@gmail.com 1 23 Rashed 2012-12-31 00:00:00 M 2014-09-11 00:00:00 rashed@gmail.com 1	7 Saud 2005-12-31 00:00:00 M 2011-09-11 00:00:00 nora@gmail.com 3 humanities 8 Nora 2010-12-31 00:00:00 F 2009-09-11 00:00:00 nora@gmail.com 4 science 14 Rana 2012-12-31 00:00:00 F 2014-09-11 00:00:00 rana@gmail.com 1 science 23 Rashed 2012-12-31 00:00:00 M 2014-09-11 00:00:00 rashed@gmail.com 1 science



```
Code:
USE TamayozHighSchool;
/* create a new table containing student records
with GPA > 90 */
-- CREATE TABLE Excellent_Students
-- SELECT * FROM Student
-- WHERE GPA > 90;
-- SELECT * FROM Excellent_Students;
/* create a new table containing student records
with GPA < 60 */
-- CREATE TABLE Failed_Students
-- SELECT * FROM Student
-- WHERE GPA < 60;
```

```
-- SELECT * FROM Failed_Students;
/* Display student names starting with A */
-- SELECT student_name FROM Student
-- WHERE student_name LIKE 'A%';
/* Display student names that
are 4 letters long */
-- SELECT student_name FROM Student
-- WHERE student_name LIKE '____';
/* Display the average, min, max GPA of all students */
-- SELECT AVG(GPA) AS "Average GPA",
-- MIN(GPA) AS "Minimum GPA",
-- MAX(GPA) AS "Maximum GPA"
-- FROM Student;
/* Display level 6 students with GPA of 100 */
```

```
-- SELECT student_name FROM Student
-- WHERE student_level = 6
-- AND GPA = 100;
-- SELECT * FROM Student
-- WHERE student_level = 1
-- AND birth_date BETWEEN "2004-1-1" AND "2005-12-31";
-- SELECT COUNT(student_id) AS "Level 2 Students"
-- FROM Student
-- WHERE student_level = 2;
-- SELECT DISTINCT track FROM Student;
-- SELECT UPPER(course_name) FROM Course;
-- SELECT FLOOR(AVG(GPA)) AS "Aerage GPA Rounded"
-- FROM Student;
```

- -- SELECT student\_id, student\_name,
- -- REPLACE(REPLACE(gender,'M','Male'),'F','Female')
- -- FROM Student;
- -- UPDATE Student
- -- SET GPA = GPA + 5
- -- WHERE GPA < 60;
- -- SELECT \* FROM Student WHERE GPA < 60;