



جامعة الإمام عبد الرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY
كلية العلوم والدراسات الإنسانية - علوم الحاسب
College of Science and Humanities - Computer Science

Database Concepts and Design

College Services Project | Millstone 3

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By:

Aljazi S. Alkhalaf

Maha M. Alrashidi

Khaznah M. Alhajri

Dr.Thowiba Hagali

TA. Maha Alghamdi



Mapped Tables:

StudentUsername

Username	StudentName	<u>StudentID</u>	Email	Major	Level	GPA	Gender	Get_civil	StClubName
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Phone_StudUsername

<u>StudentID</u>	<u>Phone</u>
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EmployeeUsername

Username	EmpName	<u>EmpID</u>	Email	Gender
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Phone_EmpUsername

<u>EmpID</u>	<u>Phone</u>
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Edit_BookSystem

<u>BookNum</u>	<u>EmpID</u>	NumShelf
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IDCard

<u>CivilRecord</u>	StudentName	Bdate	Nationality	BloodType	Expire
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Book

BorrowerName	<u>BookNum</u>	BookTitle	Year	StID	BorrowDate	ReturnDate
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Locker

StudentName	StudentID	<u>LockerNum</u>	Wing	Period
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Club

Talent	StudentName	<u>ClubName</u>	Email	ClubType
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Filled tables:

EmployeeUsername

	empID	StudentNameEMP	Email	Gender	USERnameEmp
▶	3467988880	Aljazi Sultan	Aljazis@iau.edu.sa	F	Sultan_Aljazi
	3468977554	Maha Mufreh	Maham@iau.edu.sa	F	Maha_m
	3469548272	Khaznah Mubark	Khaznahm@iau.edu.sa	F	Khaznah_
*	NULL	NULL	NULL	NULL	NULL

IDCard

	Civil_record	StudentNameID	Nationality	BDate	Expiredate	Bloodtype
▶	1001792184	Fatimah Rashid	Saudi	1999-12-20	2021-05-05	O+
	1004262157	Nourah Ahmed	Saudi	2001-04-07	2024-05-05	O-
	1024729215	Sara Mohammed	Saudi	2000-11-08	2023-05-05	A+
	1075372216	Sumayah Nasser	Saudi	1998-10-03	2018-05-05	B+
	1103822677	Sara Saad	Saudi	2002-07-04	2025-05-05	AB+
*	NULL	NULL	NULL	NULL	NULL	NULL

Club

	ClubName	STName	Email	ClubType	stTalent
▶	Computer Science club	Nourah Ahmed	2200008321@iau.edu.sa	private	programmer
	Fitness club	Sumayah Nasser	2160003733@iau.edu.sa	public	fitness training
	Toastmaster	Sara Saad	2210008003@iau.edu.sa	public	Leadership skills
*	NULL	NULL	NULL	NULL	NULL

StudentUsername

	ID	StudentNameF	Major	levelst	Email	Gender	GPA	Get_civil	StClubName	USERname
▶	2160003733	Sumayah Nasser	Mathematics	9th	2160003733@iau.edu.sa	F	4.200	1075372216	Fitness club	Sum_Nasser
	2180008845	Fatimah Rashid	Physics	7th	2180008845@iau.edu.sa	F	4.900	1001792184	NULL	FatimahRashid_oth
	2190008843	Sara Mohammed	Computer Science	6th	2190008843@iau.edu.sa	F	3.400	1024729215	NULL	Sara90
	2200008321	Nourah Ahmed	Computer Science	4th	2200008321@iau.edu.sa	F	4.700	1004262157	Computer Science club	ahm_nora
	2210008003	Sara Saad	Prep Year	1th	2210008003@iau.edu.sa	F	4.000	1103822677	Toastmaster	_75Sara__
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Book

	BorrowerName	BookNum	BookTitle	yearr	stId	BorrowDate	ReturnDate
▶	Sara Mohammed	101	Biology	1999	2190008843	2020-04-01	2021-04-01
	Sumayah Nasser	120	Positive Thinking	1998	2160003733	2018-02-02	2018-02-24
	Nourah Ahmed	202	The Brain	2010	2200008321	2020-08-06	2021-03-04
	Sumayah Nasser	414	Seeds and Trees	2017	2160003733	2017-07-01	2017-09-05
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Book System

	bookNo	empId	shelfNo
▶	101	3467988880	1
	414	3468977554	9
	120	3469548272	4
	202	3469548272	5
*	NULL	NULL	NULL



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Locker

	StudentName	stdID	LockerNum	wing	Period
▶	Sumayah Nasser	2160003733	110	A	1
	Sara Mohammed	2190008843	112	A	2
	Nourah Ahmed	2200008321	401	B	1
	Fatimah Rashid	2180008845	402	B	2
	Sara Saad	2210008003	500	C	2
*	NULL	NULL	NULL	NULL	NULL

Phone_EmpUsername

	phoneEmp	emp_id
▶	0534904050	3467988880
	0535329888	3467988880
	0501906647	3468977554
	0536280876	3468977554
	0530702260	3469548272
*	NULL	NULL

Phone_StudUsername

	phoneStd	std_id
▶	0546668970	2160003733
	0535677802	2180008845
	0543306098	2190008843
	0550456321	2200008321
	0533364389	2210008003
*	NULL	NULL

155
156 • `Select StudentNameF from UserStudent where (StudentNameF LIKE 'S%') AND (StudentNameF LIKE '%.');`

StudentNameF
Sumayah Nasser
Sara Mohammed

160 • `Select StudentNameEMP from UserEmp order by StudentNameEMP ASC;`

StudentNameEMP
Aljaz Sultan
Khaznah Hubark
Maha Mufreh

161
162 • `Select StudentNameF from UserStudent order by StudentNameF ASC;`
163

StudentNameF
Fatimah Rashid
Nourah Ahmed
Sara Mohammed
Sara Saad
Sumayah Nasser



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163
164
165

```
ReturnDate from Book , UserStudent where ((BookTitle='Biology') or (BookTitle='Seeds and Trees '))and ID=stdID order by BookNum desc;  
bName from Club , UserStudent GROUP BY Major=ClubName;
```

Result Grid | Filter Rows: | Exports: | Wrap Cell Content: |

BorrowerName	ReturnDate
Sumayah Nasser	2017-09-05
Sara Mohammed	2021-04-01

165

```
Select stTalent, STName, ClubName from Club , UserStudent GROUP BY Major=ClubName;
```

Result Grid | Filter Rows: | Exports: | Wrap Cell Content: |

stTalent	STName	ClubName
programmer	Nourah Ahmed	Computer Science club

165
166
167

```
SELECT stTalent, STName, ClubName from Club , UserStudent GROUP BY Major=ClubName;  
SELECT ID , StudentNameF FROM UserStudent WHERE StClubName IS NOT NULL;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: |

ID	StudentNameF
2200008321	Nourah Ahmed
2160003733	Sumayah Nasser
2210008003	Sara Saad
NULL	NULL

167
168

```
SELECT ID , StudentNameF FROM UserStudent WHERE StClubName IS NULL;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: |

ID	StudentNameF
2180008845	Fatmah Rashid
2190008843	Sara Mohammed
NULL	NULL

169
170
171

```
SELECT stdID , StudentName, Levelst FROM UserStudent , Locker WHERE LockerNum= 401 or LockerNum= 402;
```

Result Grid | Filter Rows: | Exports: | Wrap Cell Content: |

stdID	StudentName	Levelst
2200008321	Nourah Ahmed	9th
2180008845	Fatimah Rashid	9th

172
173
174

```
SELECT StudentNameF , ID FROM UserStudent WHERE EXISTS (SELECT BorrowerName FROM Book WHERE BorrowerName = StudentNameF);
```

Result Grid | Filter Rows: | Exports: | Wrap Cell Content: |

StudentNameID
Fatmah Rashid
Nourah Ahmed
Sara Mohammed
Sumayah Nasser
Sara Saad
Sumayah Nasser
Sara Mohammed
Nourah Ahmed
Fatmah Rashid
Sara Saad



```
172 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
173 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
174 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
175 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
176 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
177 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
178 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
179 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
```

StudentNameID
Sumayah Nasser
Sara Mohammed
Sumayah Nasser

```
173 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
174 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
175 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
176 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
177 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
178 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
179 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
```

StudentNameID	Major	Levelist
Sumayah Nasser	Physics	7th
Sara Mohammed	Prep Year	1st

```
173 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
174 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
175 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
176 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
177 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
178 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
179 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
```

StudentNameID	Major	Levelist
Sumayah Nasser	Physics	7th
Sara Mohammed	Prep Year	1st

```
173 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
174 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
175 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
176 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
177 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
178 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
179 SELECT StudentNameID FROM Board WHERE all (SELECT StudentName FROM Locker);
```

empID	StudentNameEMP	UsernameEMP	Gender
3467968880	Aljazi Sultan	Sultan_Ajazi	Female
3468977554	Maha Mufreh	Aljazi Sultan	Female
3469548272	Khazmah Mubark	Khazmah_	Female

Select Max(GPA) from UserStudent;

	Max(GPA)
▶	4.900

Select ID

from UserStudent

where StudentNameF='Sumayah Nasser';

	ID
▶	2160003733
*	NULL



Create view view_1

as

Select GPA

from UserStudent

Where StudentNameF ='Sara Mohammed';

select * from view_1;

	GPA
▶	3.400

SELECT AVG(GPA) FROM UserStudent where Major ='Computer Science';

	AVG(GPA)
▶	4.0500000



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Delimiter \$\$

```
CREATE PROCEDURE All_Info( In S_name varchar (25) )
```

```
BEGIN
```

```
SELECT * from UserStudent
```

```
where StudentNameF= S_name ;
```

```
END;$$
```

Delimiter ;

delimiter ;

```
SELECT @name_ :='Nourah Ahmed';
```

```
CALL All_Info(@name_);
```

	ID	StudentNameF	Major	levelst	Email	Gender	GPA	Get_civil	StClubName	USERname
▶	2200008321	Nourah Ahmed	Computer Science	4th	2200008321@iau.edu.sa	F	4.700	1004262157	Computer Science club	ahm_nora