

Session (01.02)

Building Database using Microsoft Access II

Dr. Ahmed M. ElShafee

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- Un-hiding field(s)



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Changing the Fields Displayed

- Tables often contain a lot of data, only some of which may be required. You can control which fields are shown and which hidden

- Hiding field(s)



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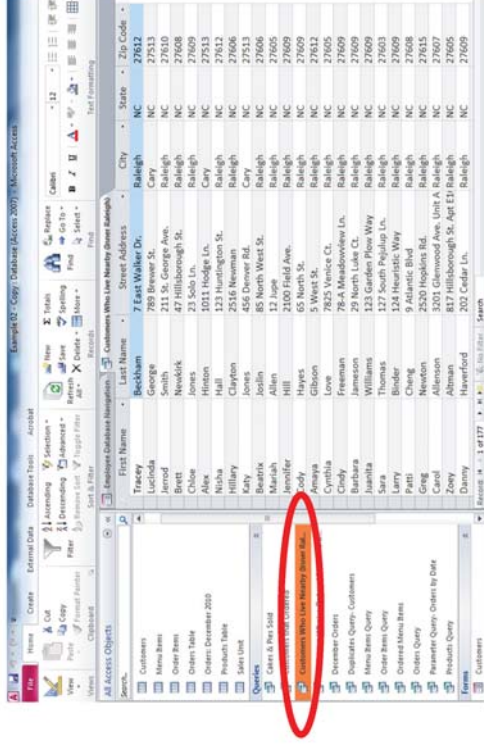
Printing table



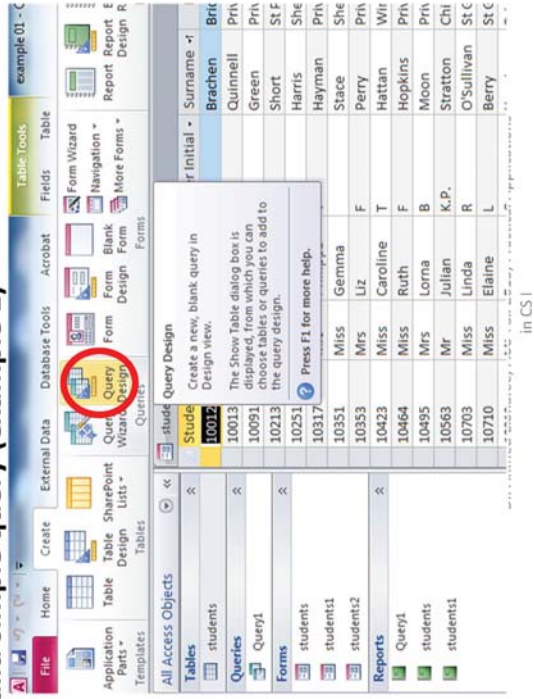
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Queries

- Queries allow you to pull information from one or more tables based on a set of search conditions you define.



Build simple query (example 1)



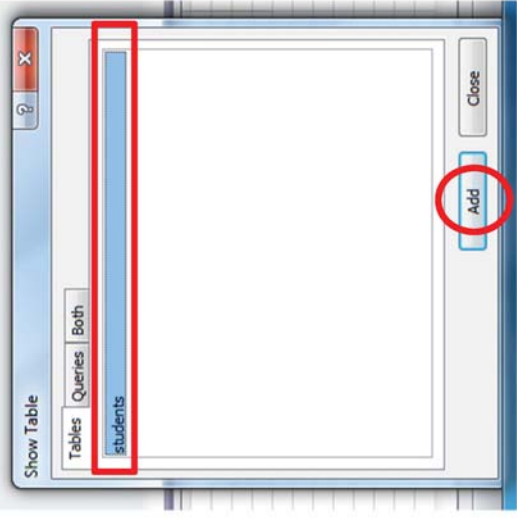
example - Copy: Database (Access 2007) - Microsoft Access

11/09/2013

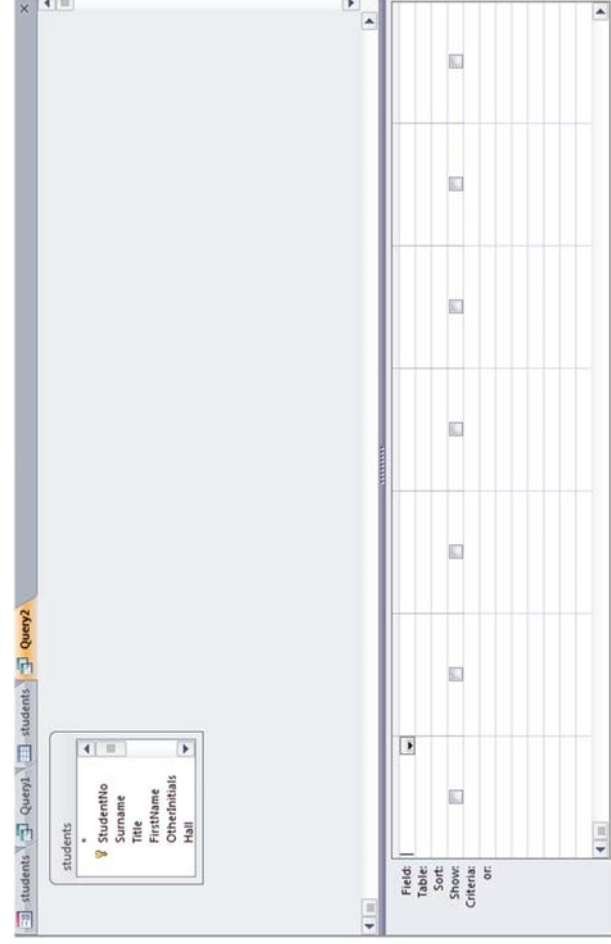
students

Student Num	Title	First Name	Town	PostCode	Phone	Overseas
10012	Mr	David	Birmingham	B11 5FN	0121-720156	☐
10013	Mrs	Polly	Faversham	FA8 0ES	0118-996344	☐
10091	Mr	Elliot	Brighton	BR2 6UN	0119-173876	☐
10213	Miss	Laura	London	NE6 6CD	0181-233249	☐
10251	Mr	Roger	Glasgow	G12 3QR	0172-946543	☒
10317	Mrs	Philippa	Devizes	DE7 0EI	0159-854399	☐
10351	Miss	Gemma	Birmingham	B29 6AE	0176-330593	☐
10353	Mrs	Liz	Tewkesbury	TE7 2YE	0187-960374	☐

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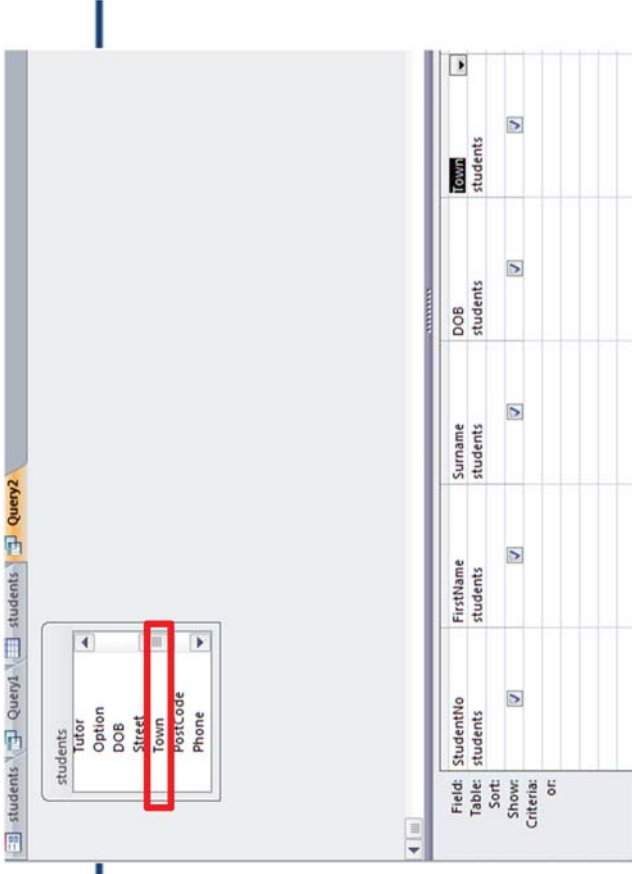


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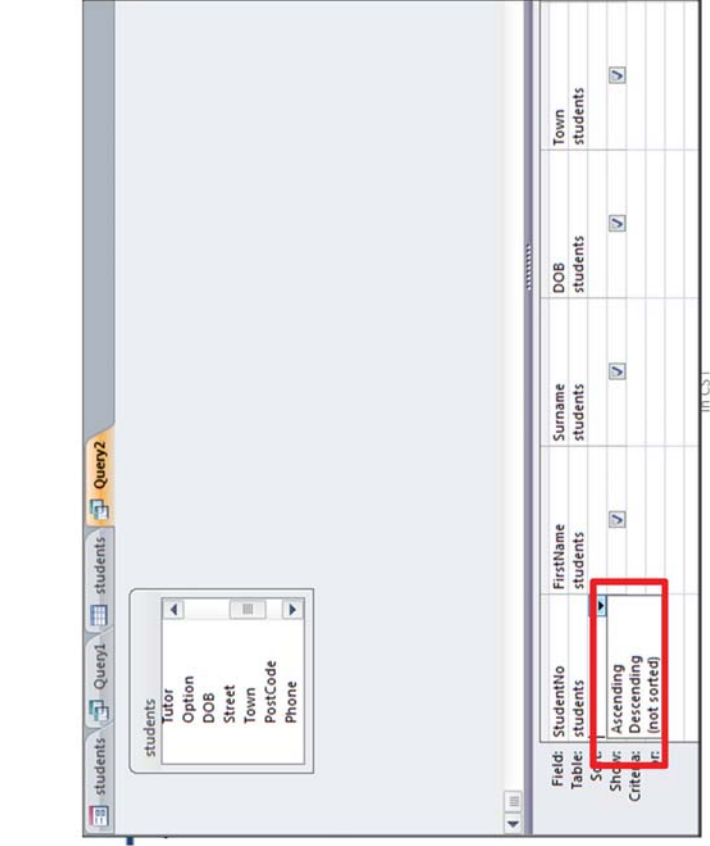
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Student N	First Nam	Surname	Date of Birth	Town
10012	David	Brachen	٨٧-١٠-٢٠	Birmingham
10013	Polly	Quinnell	٨٥-١٠-٢٤	Faversham
10091	Elliot	Green	٨٦-١٠-٢٤	Brighton
10213	Laura	Short	٨٢-١٠-١٥	London
10251	Roger	Harris	٨٣-١٠-١٤	Glasgow
10317	Philippa	Hayman	٨٢-١٠-٢٢	Devizes
10351	Gemma	Stace	٨٧-١٠-٠٥	Birmingham
10353	Liz	Perry	٨٤-١٠-٠١	Tewkesbury
10423	Caroline	Hattan	٨٢-١٠-٢٠	London
10464	Ruth	Hopkins	٨٤-١٠-٢٠	Liverpool
10495	Lorna	Moon	٨٢-١٠-١٣	Exeter
10563	Julian	Stratton	٨٤-١٠-١٨	Inverness
10703	Linda	O'Sullivan	٦٥-١٠-١٨	London
10710	Elaine	Berry	٨٧-١٠-٢٠	Montgomery
10813	Emma	Huggins	٨٦-١٠-١٣	Cardiff
10848	Julie	Gallacher	٨٢-١٠-٢٥	Newcastle-on-
10849	Rosie	Downing	٨٥-١٠-٢٢	Harpending
10865	Chris	Wilson	٨٥-١٠-٢٥	Southampton
10933	Charles	Collins	٨٤-١٠-١٨	Yeovil
11011	Susan	Foley	٨٤-١٠-١٩	Sunderland
11071	Tony	Smith	٨٦-١٠-١٩	London
11076	Lynda	Barrow	٨٤-١٠-١٦	Pontypool
11165	Richard	Elgie	٨٢-١٠-٢٧	Edinburgh
11174	Louise	Frank	٨٤-١٠-٢٠	Wrexham
11233	Paddy	Clarke	٨٢-١٠-٢٨	Loughborough

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example 01 - Copy: Database

File Home Create External Data Database Tools Acrobat

Views All Access Objects Tables Queries Query1 Query2 Forms students students1 students2 Reports Query1 students students1

Sort & Filter

Student N First Nam Surname Date of Birth Town

10012 David Brachen ٨٧-١٠-٢٠ Birmingham

10013 Polly Quinnell ٨٥-١٠-٢٤ Faversham

10091 Elliot Green ٨٦-١٠-٢٤ Brighton

10213 Laura Short ٨٢-١٠-١٥ London

10251 Roger Harris ٨٣-١٠-١٤ Glasgow

10317 Philippa Hayman ٨٢-١٠-٢٢ Devizes

10351 Gemma Stace ٨٧-١٠-٠٥ Birmingham

10353 Liz Perry ٨٤-١٠-٠١ Tewkesbury

10423 Caroline Hattan ٨٢-١٠-٢٠ London

10464 Ruth Hopkins ٨٤-١٠-٢٠ Liverpool

10495 Lorna Moon ٨٢-١٠-١٣ Exeter

10563 Julian Stratton ٨٤-١٠-٢٠ Inverness

10703 Linda O'Sullivan ٦٥-١٠-١٨ London

10710 Elaine Berry ٨٧-١٠-٢٠ Montgomery

10813 Emma Huggins ٨٦-١٠-١٣ Cardiff

10848 Julie Gallacher ٨٢-١٠-٢٥ Newcastle-on-

10849 Rosie Downing ٨٥-١٠-٢٢ Harpenden

10865 Chris Wilson ٨٥-١٠-٢٥ Southampton

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example 01 - Copy: Database (Access 2007) - Microsoft Access

File Home Create External Data Database Tools Acrobat

Views All Access Objects Tables Queries Query1 Query2 Forms students students1 students2 Reports Query1 students students1

Query1 Append

Make the query add records to an existing table.

Table: students

Fields: StudentID, Surname, First Name, DOB, Town, PostCode, Phone

Sort: Ascending

Show: Criteria

On: Option

Option: DOB, Street, Town, PostCode, Phone

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example 01 - Copy: Database (Access 2007) - Microsoft Access

File Home Create External Data Database Tools Acrobat

Views All Access Objects Tables Queries Query1 Query2 Forms students students1 students2 Reports Query1 students students1

Query2 Save As

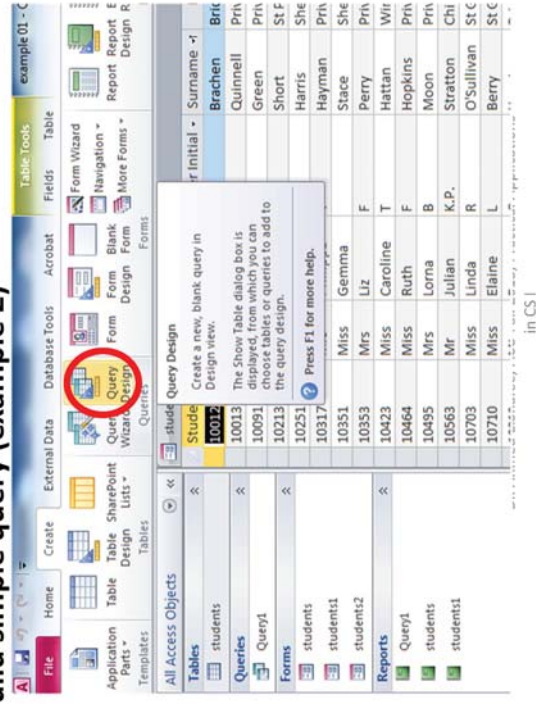
Query Name: Query2

OK

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- **Build simple query (example 2)**



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The screenshot shows the Microsoft Access 2007 interface. In the ribbon, the 'Run' button (indicated by a red circle) is highlighted. The 'Query1' object is selected in the 'Navigation View' on the left. The 'Query Design View' is active, showing a list of fields: Street, Town, PostCode, Phone, Overseas, Notes, and Photograph. The 'Table' tab is selected in the ribbon. The 'Query Setup' task pane is visible on the right, showing the 'Field:' list with 'StudentNo', 'Surname', 'DOB', and 'Town'. The 'Criteria:' row is empty. The 'Show:' row is set to 'Ascending'. The 'Criteria:' row is set to '>=1/01/1985'. The 'Table' tab is selected in the ribbon.

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2.

Query2

students

Street

Town

PostCode

Phone

Overseas

Notes

Photograph

Field:

Table: students

Sort:

Show: Ascending

Criteria:

or:

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in CS

2.

Student N	First Nam	Surname	Date of Birtl	Town
10012	David	Brachen	٨٧-١٠-٢٠	Birmingham
10013	Polly	Quinnell	٨٥-٠١-٢٤	Faversham
10091	Elliot	Green	٨٦-٠١-١٢	Brighton
10351	Gemma	Stace	٨٧-٠١-٠٥	Birmingham
10710	Elaine	Berry	٨٧-٠١-٢٠	Montgomery
10813	Emma	Huggins	٨٦-٠١-١٢	Cardiff
10849	Rosie	Downing	٨٥-٠١-٢٢	Harpenden
10865	Chris	Wilson	٨٥-٠١-٢٥	Southampton
11071	Tony	Smith	٨٦-٠١-١٩	London
11304	Tom	Beech	٨٧-٠١-١١	Birmingham
11367	Valerie	Nickels	٨٦-٠١-٢٠	Hull
11443	Felix	Stewart	٨٧-٠١-٢٥	Market Harbor
11788	Abraham	Albury	٨٧-٠١-٢١	Walsall
11846	Katharine	Edwards	٨٧-٠١-٢١	Londonderry
11847	John	Paul	٨٦-٠١-١٤	Leigh
12083	Richard	Burton	٨٥-٠١-٢٠	Great Yarmout
12212	Martin	Armson	٨٦-٠١-١٤	Matlock
12349	Lydia	Laphorn	٨٥-٠١-١٦	Reading
12461	Barbara	Doswell	٨٧-٠١-٢٠	Woking
12542	Linda	Mackie	٨٥-٠١-٢١	London
12677	Christina	Ebner	٨٧-٠١-١٤	Ffestiniog
12973	Joanne	Lawson	٨٧-٠١-١٩	London
13097	Victoria	Young	٨٦-٠١-١٨	London
13205	Sophie	Taylor	٨٦-٠١-٢٠	London
13221	William	Crowley	٨٥-٠١-٢٣	Kidderminster

Applications
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Simple Query 3

Query3

Field	Table	Sort	Show	Criteria
StudentNo	students		☒	
Firstname	students		☒	
Surname	students		☒	
DOB	students		☒	<01/01/1985
Town	students		☒	

Field List:

- students: StudentNo, Firstname, Surname, DOB, Town, PostCode

Query2

Field	Table	Sort	Show	Criteria
Student N	students		☒	
First Nam	students		☒	
Surname	students		☒	
Date of Birtl	students		☒	
Town	students		☒	

Field List:

- students: Student N, First Nam, Surname, Date of Birtl, Town

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Student N	First Nam	Surname	Date of Birtl	Town
10251	Roger	Harris	٨٦-١٠-١٥	London
10317	Phillippa	Hayman	٨٢-٠١-١٤	Glasgow
10353	Liz	Perry	٨٢-٠١-٢٢	Devizes
10423	Caroline	Hattan	٨٤-٠١-٠١	Tewkesbury
10464	Ruth	Hopkins	٨٤-٠١-٢٠	London
10495	Lorna	Moon	٨٤-٠١-٢٣	Liverpool
10563	Julian	Stratton	٨٢-٠١-١٢	Exeter
10703	Linda	O'Sullivan	٨٤-٠١-١٨	Inverness
10848	Julie	Gallacher	٦٥-٠١-١٨	London
10933	Charles	Collins	٨٢-٠١-٢٥	Newcastle-on-
11011	Susan	Foley	٨٤-٠١-١٨	Yeovil
11076	Lynda	Barrow	٨٤-٠١-١٩	Sunderland
11165	Richard	Elgie	٨٤-٠١-٢٠	Pontypool
11174	Louise	Frank	٨٢-٠١-٢٧	Edinburgh
11233	Paddy	Clarke	٨٤-٠١-٢٠	Wrexham
11238	Charlotte	Goddard	٨٢-٠١-٢٨	Loughborough
11311	Emily	Gardiner	٨٢-٠١-٢٦	Greenock
11313	Kate	Round	٨٢-٠١-٢٩	Reading
11339	Sandra	Smith	٨٤-٠١-٢٧	London
11493	Thomas	Brown	٨٤-٠١-٠٤	Hatfield
11583	Bev	Dunwell	٨٢-٠١-٢٢	Kinross
11699	Alison	Kim	٨٤-٠١-٠١	Clacton
11751	Alex	Callaghan	٨٢-٠١-١٣	Norwich
11775	Jennifer	Mitchell	٨٢-٠١-٢١	Southampton
			٨٦-٠١-١٦	Axbridge

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Simple Query 04

Microsoft Access 2007 interface showing the Query Design view for 'Query4'. The table 'students' is selected, and fields 'StudentNo', 'Firstname', 'Surname', 'DOB', and 'Town' are added to the design grid. The 'Criteria' row shows a date filter: >#01/01/1985 and <#31/12/1985. The 'Show' row is checked for all fields.

Field:	StudentNo	Firstname	Surname	DOB	Town
Table:	students	students	students	students	students
Sort:	Ascending				
Show:	☒	☒	☒	☒	☒
Criteria:				>#01/01/1985 and <#31/12/1985	

Simple Query 05

Microsoft Access 2007 interface showing the Query Design view for 'Query5'. The table 'students' is selected, and fields 'StudentNo', 'Firstname', 'Surname', 'DOB', 'Street', 'Town', and 'PostCode' are added to the design grid. The 'Criteria' row shows a date filter: >#01/01/1985# And <#31/12/1985# = "London". The 'Show' row is checked for all fields.

Field:	StudentNo	Firstname	Surname	DOB	Street	Town	PostCode
Table:	students	students	students	students	students	students	students
Sort:	Ascending						
Show:	☒	☒	☒	☒	☒	☒	☒
Criteria:				>#01/01/1985# And <#31/12/1985# = "London"			

Student N	First Nam	Surname	Date of Birtl	Town
10013	Polly	Quinnell	١٢-١٠-٨٥	Faversham
10849	Rosie	Downing	١٢-١١-٨٥	Harpenden
10865	Chris	Wilson	٢٥-١٠-٨٥	Southampton
12083	Richard	Burton	١٠-١٢-٨٥	Great Yarmout
12349	Lydia	Laphorn	١١-١١-٨٥	Reading
12542	Linda	Mackie	٢١-١١-٨٥	London
13221	William	Crowley	١٢-١٠-٨٥	Kidderminster
13542	Giles	Butler	٠٩-١١-٨٥	Exmouth
13762	Spencer	Lilley	٢٢-١١-٨٥	London
13793	Adam	Marfell	١٢-١١-٨٥	Glasgow
13991	Stephen	Cant	١٢-١١-٨٥	Evesham
14773	Alison	Symons	١٧-١١-٨٥	Chesterfield
14887	Sheena	Hatwell	١٠-١١-٨٥	Stranraer
14904	Brendan	Ahern	٢٥-١١-٨٥	Harlow
14916	Corrie	Bettington	٢٥-١١-٨٥	Pembroke
15038	Helena	Edwards	٢٧-١١-٨٥	Bristol
15077	Claire	Wright	٢٢-١١-٨٥	Caversham
15520	David	Lynch	١٢-١١-٨٥	Durham
15786	Mark	James	١٦-١١-٨٥	Haywards Heat
15859	Thomas	Dalton	٠٧-١١-٨٥	Widnes
15927	Shirley	Watkins	١٦-١١-٨٥	Thetford
16087	Sarah	Little	٢١-١١-٨٥	Epsum
16226	Charlotte	Roberts	٢٧-١١-٨٥	Croydon
16717	Walter	Brand	١٩-١١-٨٥	Birmingham
17202	Sarah	Wenhorn	١٦-١١-٨٥	London

Student N	First Nam	Surname	Date of Birtl	Town
12542	Linda	Mackie	٢١-١١-٨٥	London
13762	Spencer	Lilley	٢٢-١١-٨٥	London
17202	Sarah	Wenborn	١٦-١١-٨٥	London
17330	Susan	Turner	٢٢-١١-٨٥	London
23200	Rosemary	Mackay	٠٨-١١-٨٥	London
*				

Simple Query 06

Microsoft Access 2007 interface showing the Query Design view for 'example01 - Copy: Database (Access 2007) - Microsoft Access'. The design grid shows fields from the 'students' table: Userid, Firstname, Surname, DOB, Town, and PostCode. The 'Show' column is checked for all fields. The 'Criteria' row is empty. The 'Totals' row is set to 'None' for all fields. The 'Query Setup' dialog box is open, showing the 'Query Type' as 'Select Query' and the 'Table' as 'students'.

Simple Query 07

Microsoft Access 2007 interface showing the Query Design view for 'example01 - Copy: Database (Access 2007) - Microsoft Access'. The design grid shows fields from the 'students' table: StudentNo, Surname, Title, Firstname, OtherInitials, and Hall. The 'Show' column is checked for all fields. The 'Criteria' row is empty. The 'Totals' row is set to 'None' for all fields. The 'Query Setup' dialog box is open, showing the 'Query Type' as 'Select Query' and the 'Table' as 'students'.

Student N	First Nam	Surname	Date of Birtl	Town
23002	Leah	Sloan	٢٥-١٠-٨٥	West Bromwic
23017	Clare	Grange	٢٢-١٢-٨٥	Coalville
23122	Celia	Rogers	١٧-١٢-٨٥	Tonbridge Wei
23160	Helen	Clarke	١٥-٨-٨٥	York
23200	Rosemary	Mackay	٠٨-١٢-٨٥	London
23214	Peter	Bates	٣١-١٢-٨٩	Wolverhampts
23310	Diana	Lake	٠٧-١٢-٨٦	Preston
23363	Elizabeth	Middleton	٢٠-١٢-٨٤	Brighton
23509	Emily	Walker	١٩-١٢-٦٧	Elton
23598	Christopher	Mulvihill	٢٧-١٢-٨٧	Harrogate
23608	Jack	Dobree	٠٨-١٢-٨٥	Wigan
23652	Amy	Staniforth	١٨-١٢-٨٩	London
23811	Nicola	Walpole	٠٢-١٢-٨٨	Charmouth
23958	Anna	Hussey	٠١-١٢-٨٧	Barry
24094	Neil	Downing	٢٩-١٢-٨٩	Luton
24203	Neil	Finch	١٠-١٢-٨٩	Bristol
24204	Matt	Harland	٠٩-١٢-٨٧	Liverpool
24261	Bella	Kingston	٠٦-١٢-٨٤	Lincoln
24266	Thomas	Davis	٣٠-١٢-٨٤	London
24299	Sue	Macgregor	٠١-١٢-٨٧	Alnwick
24410	Nick	Budden	٠٣-١٢-٨٧	Frodsham
24480	Tony	Morgan	٢٤-١٢-٨٨	Middlesborou
24598	Lyn	Weston	١٣-١٢-٨٩	Stratford-upor
24613	Ian	Murray	٠٤-١٢-٨٩	Newry
24637	Allison	Roberts	١٢-١٢-٨٨	Carshalton

Student N	First Nam	Surname	Date of Birtl	Town
23002	Leah	Sloan	٢٥-١٠-٨٥	West Bromwic
23017	Clare	Grange	٢٢-١٢-٨٥	Coalville
23122	Celia	Rogers	١٧-١٢-٨٥	Tonbridge Wei
23160	Helen	Clarke	١٥-٨-٨٥	York
23200	Rosemary	Mackay	٠٨-١٢-٨٥	London
23608	Jack	Dobree	٠٨-١٢-٨٥	Wigan
25013	Gillian	Turner	٢٤-١٢-٨٥	Bridlington
25175	Paul	Macfadyen	١٩-١٢-٨٥	Redruth
25438	Kerr	Jeffries	٠٤-١٢-٨٥	Wishaw
25749	Eva	Morton	١١-١٢-٨٥	Uttoxeter
26538	Victoria	Gould	٠٤-١٢-٨٥	Aberdeen
27572	Stuart	Bottomley	٠٧-١٢-٨٥	Camborne
27868	Francis	Martin	٢٥-١٢-٨٥	Guildford
28540	Rebecca	Rowling	٠٩-١٢-٨٥	Staines
28732	Janet	Geraghty	٠٨-١٢-٨٥	Swansea
28754	Andrea	Williams	١٨-١٢-٨٥	Oxford
28801	Sue	Packham	٢٨-١٢-٨٥	Four Oaks
29013	Hannah	Reece	٠٣-١٢-٨٥	Bromsgrove
29182	Richard	Burnett	٢٠-١٢-٨٥	Glastonbury
29483	Nina	Cranfield	٠٤-١٢-٨٥	Gosforth
29527	Anneliese	Himes	٢٧-١٢-٨٥	Poole
29840	Kevin	Preston	٢٠-١٢-٨٥	Mold

Simple Query 08

FileHomeCreateExternal DataDatabase ToolsAcrobatQuery ToolsDesignQuery ToolsProperty SheetTable Names

ViewRunMake TableAppend Update Crosstab DeletePass-ThroughData DefinitionQuery Setup

ResultsTablesQueriesQuery 07Query 08Query 09Query 10Query 11Query 12Query 13Query 14Query 15Query 16Formsstudentsstudent1student2Reports

Query 08

Field: StudentID, Surname, DOB, Town, Userid

Table: students

Sort: Ascending

Show: All

Criteria: >#01/01/1965# And -

Like: "08"

= Fox

Simple Query 09

FileHomeCreateExternal DataDatabase ToolsAcrobatQuery ToolsDesignQuery ToolsProperty SheetTable Names

ViewRunMake TableAppend Update Crosstab DeletePass-ThroughData DefinitionQuery Setup

ResultsTablesQueriesQuery 07Query 08Query 09Query 10Query 11Query 12Query 13Query 14Query 15Query 16Formsstudentsstudent1student2Reports

Query 09

Field: StudentID, Surname, DOB, Town, Userid

Table: students

Sort: Ascending

Show: All

Criteria: >#01/01/1965# And -

Like: "09"

= Fox

Student N	First Nam	Surname	Date of Birtl	Town
28754	Andrea	Williams	١٨-١٠-٨٥	Oxford

Student N	First Nam	Surname	Date of Birtl	Town
24261	Bella	Kingston	١٤-١٠-٨٤	Lincoln
26669	Kellie	McKibbin	٣٠-١١-٨٨	Sutton Coldfie
27869	Gemma	Smith	٠٤-١٢-٨٧	Port Talbot
28188	Sarah	Heanes	٢١-١٢-٨٤	Sittingbourne
28213	Samantha	Rooney	١٣-١٢-٨٦	Stoke
28754	Andrea	Williams	١٨-١٠-٨٥	Oxford
29538	Ruth	Houghton	٠٨-١١-٨٩	Jedburgh

Assignment

- Use student grades table to build the following queries
1. Show list of students (name, ID) sorted using student name
 2. Show list of students (name, IDs, GPA) sorted according to their GPAs
 3. Show list of students (names, IDs + grades + GPAs) who gained A to B- in all courses, sorted according to GPAs
 4. Show list of students (names, IDs + grades + GPAs) who gained A to B- in all math course
 5. Show list of students (names, IDs + grades + GPAs) who gained A to B- in computer science courses (into CS, fundamentals I)

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Thanks,..
See you next week (ISA),...

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6. Show list of student (names, IDs + grades + GPAs) who gained (A to B-) in physics and electronics
7. Show list of students (names, IDs + GPAs) who joined faculty in spring 2013
8. Show list of students (names, IDs, CH,GPAs) who failed on one of more courses
9. Show list of students (names, IDs + grades + grades) who didn't finished any one of English courses (I, or II)
10. Show list of students (names, IDs + grades + grades + ch) who will remain in L1 in Fall 2013 (CH<21)

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