



# Week 3 - Lab 2: Query Analysis Examples (including textual analysis)

# Agenda

- A step by step example of how to perform query analysis on data including textual analysis

# Data Source

Data from a survey on most popular websites

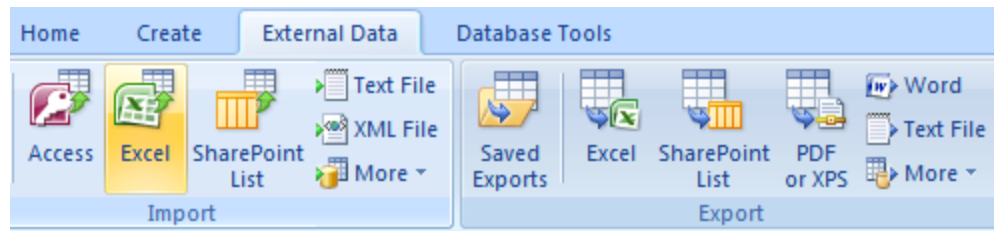
B	5	D	4	E	3	F	2	G	1
Student	Website1	Website2	Website3	Website4	Website5				
1	Hotmail	Yahoo	Facebook	Bank	Youtube				
2	UofC	Google	Hotmail	Bank	Facebook				
3	StockWatch	StockHouse	Kitco	Canucks.com	Arsenal.com				
4	UofC	Google	Bank	Null	Null				
5	Google	TheLottery	NHL.com	Wikipedia	Funnyjunk.com				
6	Yahoo	MySpace	Google	MSN	Null				
7	Hotmail	Facebook	Youtube	UofC	MySpace				
8	Yahoo	Facebook	Youtube	Hi5	Null				
9	Google	Youtube	Wikipedia	NFL.com	Horoscope				
10	Google	Youtube	Wikipedia	NHL.com	Hotmail				
11	Google	Facebook	Shawlife.com	Calgaryplanet	Hotmail				
12	Google	Hotmail	Facebook	Lonelyplanet	Youtube				

# Expected Result Format

WebsiteScoreSummary	
Score	WebsiteName
208	Facebook
184	Google
140	Hotmail
93	UofC
54	Yahoo
47	MSN
45	Youtube
39	Wikipedia
32	Null
27	NHL.com
19	Gmail
16	Bank
12	BlackBoard
9	Webmail
9	NBA.com
7	Dictionary.com

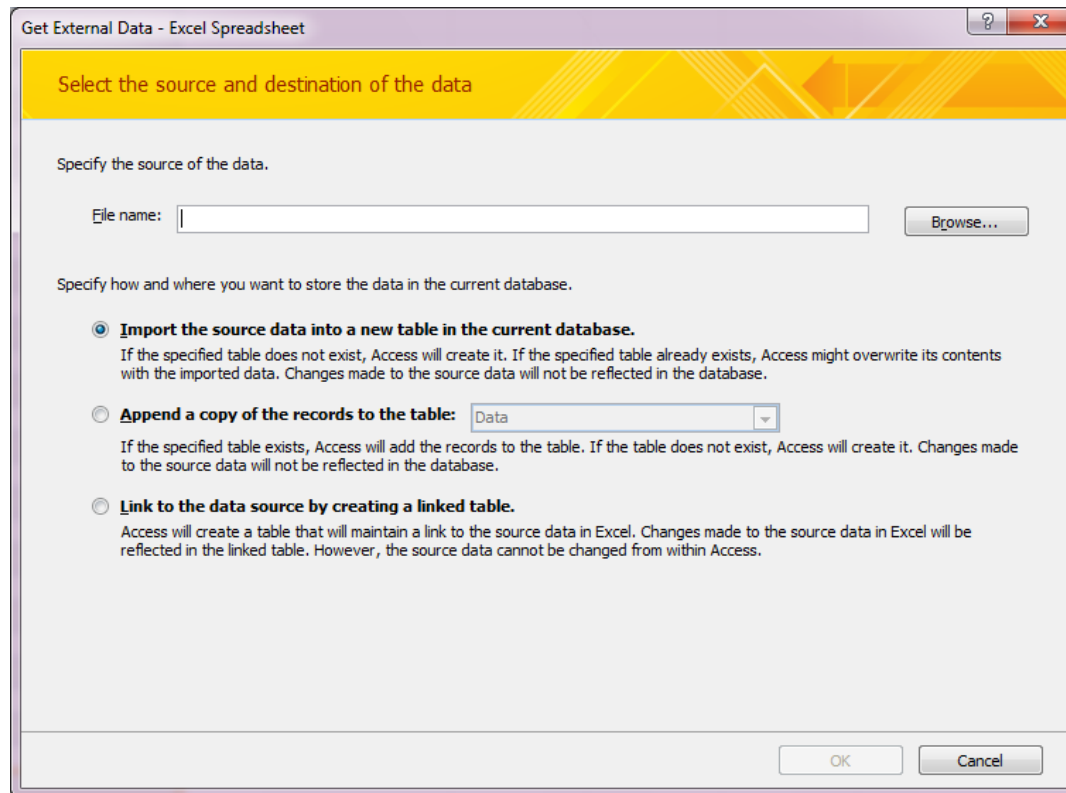
# Step 1: Import data to MS Access

- From *External Data* context, select *Excel*

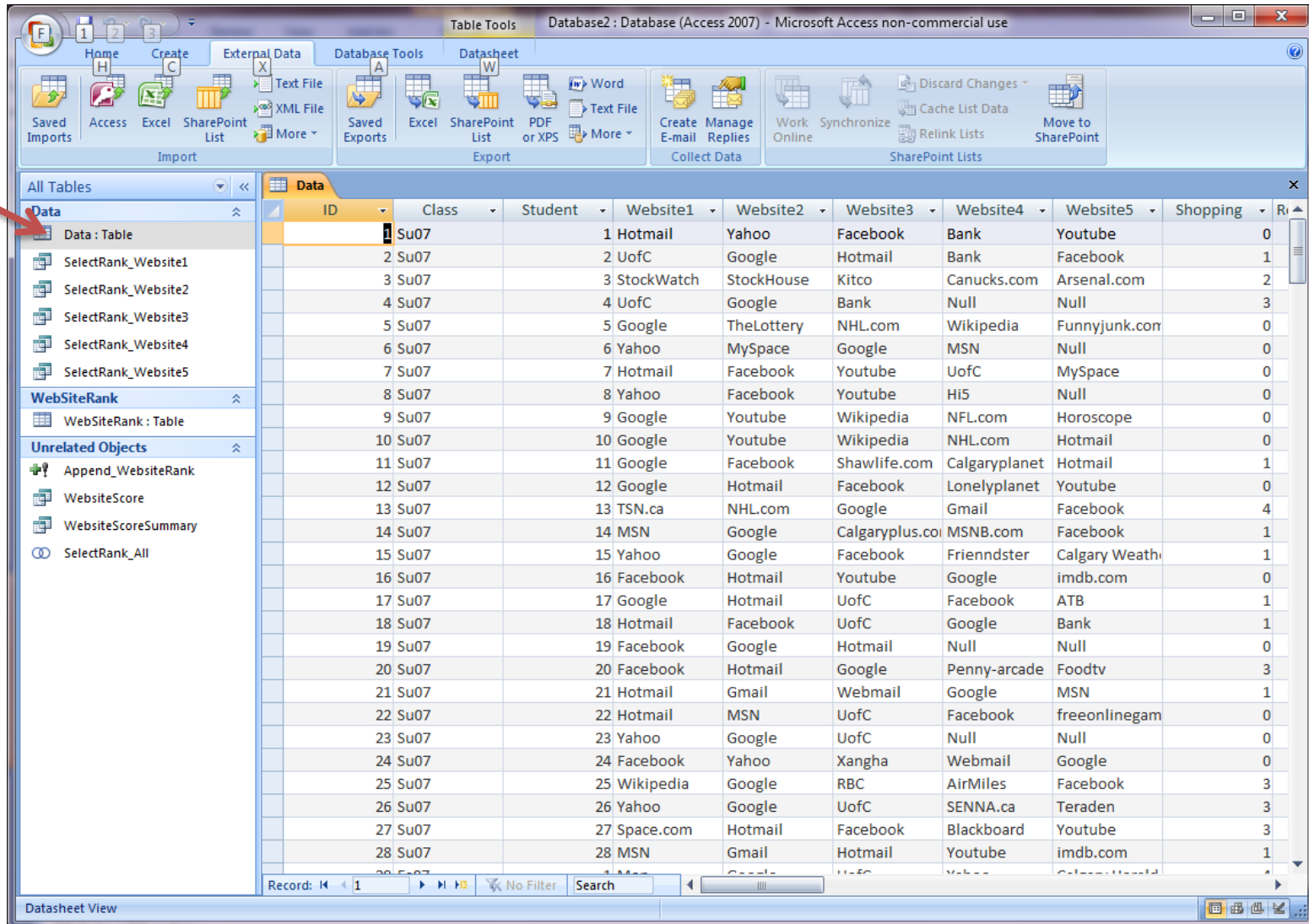


# Step 1: Import data to MS Access

- Select the file (i.e. test.xlsx)



# Step 2: Verify Imported Content



Database2 : Database (Access 2007) - Microsoft Access non-commercial use

Table Tools: Home, Create, External Data, Database Tools, Datasheet

Import: Saved Imports, Access, Excel, SharePoint List, Text File, XML File, More

Export: Saved Exports, Excel, SharePoint List, PDF or XPS, More

Collect Data: Create E-mail, Manage Replies

SharePoint Lists: Work Online, Synchronize, Discard Changes, Cache List Data, Relink Lists, Move to SharePoint


All Tables: Data, SelectRank\_Website1, SelectRank\_Website2, SelectRank\_Website3, SelectRank\_Website4, SelectRank\_Website5, WebSiteRank, Unrelated Objects, Append\_WebSiteRank, WebsiteScore, WebsiteScoreSummary, SelectRank\_All

ID	Class	Student	Website1	Website2	Website3	Website4	Website5	Shopping	Ri
1	Su07	1	Hotmail	Yahoo	Facebook	Bank	Youtube		0
2	Su07	2	UofC	Google	Hotmail	Bank	Facebook		1
3	Su07	3	StockWatch	StockHouse	Kitco	Canucks.com	Arsenal.com		2
4	Su07	4	UofC	Google	Bank	Null	Null		3
5	Su07	5	Google	TheLottery	NHL.com	Wikipedia	Funnyjunk.com		0
6	Su07	6	Yahoo	MySpace	Google	MSN	Null		0
7	Su07	7	Hotmail	Facebook	Youtube	UofC	MySpace		0
8	Su07	8	Yahoo	Facebook	Youtube	Hi5	Null		0
9	Su07	9	Google	Youtube	Wikipedia	NFL.com	Horoscope		0
10	Su07	10	Google	Youtube	Wikipedia	NHL.com	Hotmail		0
11	Su07	11	Google	Facebook	Shawlife.com	Calgaryplanet	Hotmail		1
12	Su07	12	Google	Hotmail	Facebook	Lonelyplanet	Youtube		0
13	Su07	13	TSN.ca	NHL.com	Google	Gmail	Facebook		4
14	Su07	14	MSN	Google	Calgaryplus.co	MSNB.com	Facebook		1
15	Su07	15	Yahoo	Google	Facebook	Friennyster	Calgary Weath		1
16	Su07	16	Facebook	Hotmail	Youtube	Google	imdb.com		0
17	Su07	17	Google	Hotmail	UofC	Facebook	ATB		1
18	Su07	18	Hotmail	Facebook	UofC	Google	Bank		1
19	Su07	19	Facebook	Google	Hotmail	Null	Null		0
20	Su07	20	Facebook	Hotmail	Google	Penny-arcade	Foodtv		3
21	Su07	21	Hotmail	Gmail	Webmail	Google	MSN		1
22	Su07	22	Hotmail	MSN	UofC	Facebook	freeonlinegam		0
23	Su07	23	Yahoo	Google	UofC	Null	Null		0
24	Su07	24	Facebook	Yahoo	Xangha	Webmail	Google		0
25	Su07	25	Wikipedia	Google	RBC	AirMiles	Facebook		3
26	Su07	26	Yahoo	Google	UofC	SENNa.ca	Teraden		3
27	Su07	27	Space.com	Hotmail	Facebook	Blackboard	Youtube		3
28	Su07	28	MSN	Gmail	Hotmail	Youtube	imdb.com		1

Record: 1 | No Filter | Search

Datasheet View

# Step 3: Create a new Table

WebSiteRank		
	Field Name	Data Type
	WebsiteRankID	AutoNumber
	StudentID	Number
	WebsiteRank	Text
	WebsiteName	Text



# Step 4: Select Required Fields using Query

The screenshot shows the Microsoft Access 2007 interface. The ribbon is set to 'Table Tools' > 'Datasheet'. The 'Export' group is highlighted with a red arrow. The 'Data' table is displayed in Datasheet View. A red box highlights the 'Student' and 'Website1' columns. The 'All Tables' pane on the left shows the following tables:

- Data : Table
- SelectRank\_Website1
- SelectRank\_Website2
- SelectRank\_Website3
- SelectRank\_Website4
- SelectRank\_Website5
- WebSiteRank
- WebSiteRank : Table
- Unrelated Objects
  - Append\_WebsiteRank
  - WebsiteScore
  - WebsiteScoreSummary
  - SelectRank\_All

ID	Class	Student	Website1	Website2	Website3	Website4	Website5	Shopping	Rank
1	Su07	1	Hotmail	Yahoo	Facebook	Bank	Youtube		0
2	Su07	2	UofC	Google	Hotmail	Bank	Facebook		1
3	Su07	3	StockWatch	StockHouse	Kitco	Canucks.com	Arsenal.com		2
4	Su07	4	UofC	Google	Bank	Null	Null		3
5	Su07	5	Google	TheLottery	NHL.com	Wikipedia	Funnyjunk.com		0
6	Su07	6	Yahoo	MySpace	Google	MSN	Null		0
7	Su07	7	Hotmail	Facebook	Youtube	UofC	MySpace		0
8	Su07	8	Yahoo	Facebook	Youtube	Hi5	Null		0
9	Su07	9	Google	Youtube	Wikipedia	NFL.com	Horoscope		0
10	Su07	10	Google	Youtube	Wikipedia	NHL.com	Hotmail		0
11	Su07	11	Google	Facebook	Shawlife.com	Calgaryplanet	Hotmail		1
12	Su07	12	Google	Hotmail	Facebook	Lonelyplanet	Youtube		0
13	Su07	13	TSN.ca	NHL.com	Google	Gmail	Facebook		4
14	Su07	14	MSN	Google	Calgaryplus.co	MSNB.com	Facebook		1
15	Su07	15	Yahoo	Google	Facebook	Friennyster	Calgary Weath		1
16	Su07	16	Facebook	Hotmail	Youtube	Google	imdb.com		0
17	Su07	17	Google	Hotmail	UofC	Facebook	ATB		1
18	Su07	18	Hotmail	Facebook	UofC	Google	Bank		1
19	Su07	19	Facebook	Google	Hotmail	Null	Null		0
20	Su07	20	Facebook	Hotmail	Google	Penny-arcade	Foodtv		3
21	Su07	21	Hotmail	Gmail	Webmail	Google	MSN		1
22	Su07	22	Hotmail	MSN	UofC	Facebook	freeonlinegam		0
23	Su07	23	Yahoo	Google	UofC	Null	Null		0
24	Su07	24	Facebook	Yahoo	Xangha	Webmail	Google		0
25	Su07	25	Wikipedia	Google	RBC	AirMiles	Facebook		3
26	Su07	26	Yahoo	Google	UofC	SENNa.ca	Teraden		3
27	Su07	27	Space.com	Hotmail	Facebook	Blackboard	Youtube		3
28	Su07	28	MSN	Gmail	Hotmail	Youtube	imdb.com		1

# Step 4: Create Query to Get Required Fields

Student	WebsiteRank	WebsiteName
1	Website1	Hotmail
2	Website1	UofC
3	Website1	StockWatch
4	Website1	UofC
5	Website1	Google

The screenshot shows a database query editor interface. On the left, a 'Data' window displays a list of fields: ID (with a key icon), Class, Student, Website1, and Website2. Below this, a query grid is visible with the following content:

Field:	Table:	Sort:
Student	Data	
WebsiteRank: "Website1"		
WebsiteName: Website1	Data	

WebsiteRank: "Website1"

WebsiteName: Website1

# Repeat Step 4 to Create similar queries

Student	WebsiteRank	WebsiteName
	1 Website2	Yahoo
	2 Website2	Google
	3 Website2	StockHouse
	4 Website2	Google
	5 Website2	TheLottery
	6 Website2	MySpace

Student	WebsiteRan	WebsiteNan		
	1 Website3	Facebook		
	2 Website3	Hotmail		
	3 Website3	Kitco		
	4 Website3	Bank		
	5 Website3	NHL.com		
	6 Website3	Google		

Student	WebsiteRan	WebsiteNan
	1 Website4	Bank
	2 Website4	Bank
	3 Website4	Canucks.com
	4 Website4	Null
	5 Website4	Wikipedia
	6 Website4	MSN

# Step 5: Merge Data into One Query

SelectRank_All			
Student	WebsiteRan	WebsiteNan	
	Website1	Facebook	
1	Website1	Hotmail	
1	Website1	Men	
1	Website2	Google	
1	Website2	Yahoo	
1	Website2	Youtube	
1	Website3	Beyond	
1	Website3	Facebook	
1	Website3	UofC	
1	Website4	Bank	
1	Website4	NFL.com	
1	Website4	Yahoo	
1	Website5	Calgary Herald	
1	Website5	Hypebeast	

```
SELECT * FROM  
SelectRank_Website1  
UNION  
SELECT * FROM  
SelectRank_Website2;  
UNION  
SELECT * FROM  
SelectRank_Website3;  
UNION  
SELECT * FROM  
SelectRank_Website4;  
UNION  
SELECT * FROM  
SelectRank_Website5;
```

# Step 6: Create Query to Copy Data into New Table

Append

The screenshot shows the Microsoft Access Query Design view for an Append query named 'Append\_WebsiteRank'. The 'Append To' row in the field list is highlighted with a red box, indicating the target table and fields for the data copy.

Field:	Table:	Sort:	Append To:
Student	SelectRank_All		StudentID
WebsiteRank	SelectRank_All		WebsiteRank
WebsiteName	SelectRank_All		WebsiteName

# WebsiteRank Table After Copying Data

WebSiteRank				
WebsiteRan	StudentID	WebsiteRan	WebsiteNan	
	1	Website1	Facebook	
	2	Website1	Hotmail	
	3	Website1	Men	
	4	Website2	Google	
	5	Website2	Yahoo	
	6	Website2	Youtube	
	7	Website1	Facebook	
	8	Website1	Google	



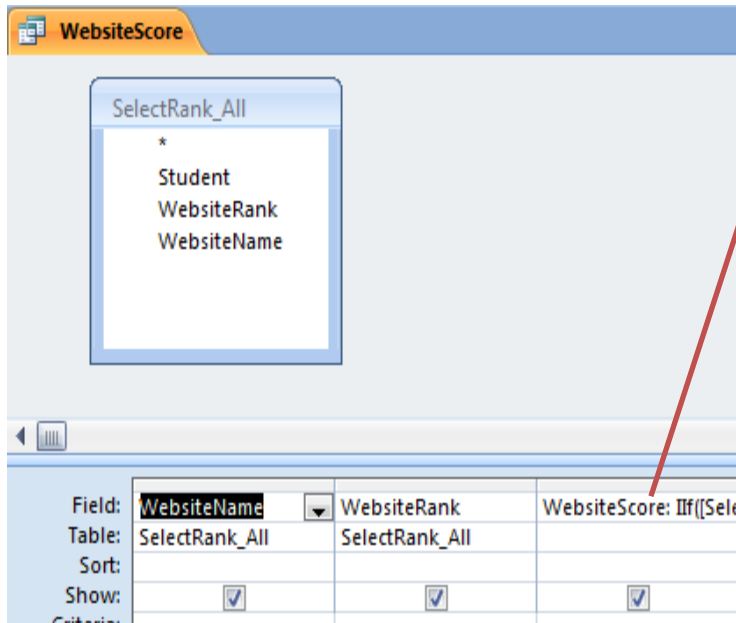
# How Can We Get the Scores?

WebSiteRank				
WebsiteRan	StudentID	WebsiteRan	WebsiteNan	
1		1	Website1	Facebook
2		1	Website1	Hotmail
3		1	Website1	Me
4		1	Website2	Go
5		1	Website2	Yah
6		1	Website2	You
7		2	Website1	Fac
8		2	Website1	Go

WebsiteScoreSummary	
Score	WebsiteName
208	Facebook
184	Google
140	Hotmail
93	UofC
54	Yahoo
47	MSN
45	Youtube
39	Wikipedia
32	Null
27	NHL.com
19	Gmail
16	Bank
12	BlackBoard
9	Webmail
9	NBA.com
7	Dictionary.com

5	4	3	2	1
Website1	Website2	Website3	Website4	Website5
Hotmail	Yahoo	Facebook	Bank	Youtube
UofC	Google	Hotmail	Bank	Facebook

# Step 7: Create New Field for Score



WebsiteScore:

```
IIf([WebsiteRank]="Website1",5,  
IIf([WebsiteRank]="Website2",4,  
IIf([WebsiteRank]="Website3",3,  
IIf([WebsiteRank]="Website4",2,  
1))))
```

Note: When you have multiple tables, you need to define the table name too.

```
IIf([SelectRank_All]![WebsiteRank]="Website4",2,1))))
```



# Output of *WebsiteScore* Query

WebsiteScore		
WebsiteName	WebsiteRank	WebsiteScore
Facebook	Website1	5
Hotmail	Website1	5
Men	Website1	5
Google	Website2	4
Yahoo	Website2	4
Youtube	Website2	4
Beyond	Website3	3
Facebook	Website3	3
UofC	Website3	3

# Step 8: Show Total Score by Website

WebsiteScoreSummary

WebsiteScore

- \*
- WebsiteName
- WebsiteRank
- WebsiteScore

Field:	Score: WebsiteScore	WebsiteName
Table:	WebsiteScore	WebsiteScore
Total:	Sum	Group By
Sort:	Descending	
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

WebsiteScoreSummary

Score	WebsiteName
208	Facebook
184	Google
140	Hotmail
93	UofC
54	Yahoo
47	MSN
45	Youtube
39	Wikipedia