

***LAB: System i Access for Web
Using the Functions:
Database***

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<http://www.ibm.com/systems/i/software/access/web>

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Lab Objective

System i Access for Web provides support for accessing database tables on an i5/OS system. Database functionality is accessed through the **Database** tab on the System i Access for Web navigation bar.

By clicking on the Database tab, an overview of the tasks you can perform using these functions is shown in the System i Access for Web content pane. To view this overview open a web browser and enter the ***System i Access for Web Main URL*** from the lab worksheet and click on the **Database** tab.

This lab takes you step-by-step through the various functions available in System i Access for Web database, including working with tables, stored requests, creating and running SQL requests, copying data from your workstation to a database table, and importing a Client Access for Windows Data Transfer request.

Good luck with the lab exercises!

Please raise your hand if you have questions!

Task 1: Importing a Client Access Express Data Transfer Request

This task shows you how to use database functions of System i Access for Web to import a data transfer request that was created with System i Access for Windows.

Four types of data transfer requests may be imported by System i Access for Web. They are:

- Data Transfer From AS/400 .DTF and .TTO request types
- Data Transfer To AS/400 .DTT and .TFR request types

The import function of System i Access for Web will attempt to convert these transfer requests into the corresponding:

- System i Access for Web Run SQL request
- Copy Data to Table request

Follow these steps to import a Data Transfer To AS/400 .DTT request into System i Access for Web.

1. If you currently have a browser open and it is displaying a System i Access for Web page that includes the navigation bar; you may skip to step 2, otherwise open a web browser. Open the **System i Access for Web Main URL** from the lab worksheet contained in the Lab Instructions document. Sign on to i5/OS using the **User ID** and **Password** values from the lab worksheet.
2. Click on the **Database** navigation tab on the left side of your browser window.
3. Click the **Import request** function to display the import request panel.
4. Enter or browse for **C:\walab\database\Upload.DTT** as the Client Access request, make sure the Character set is Western [windows-1252], and click **Import Request**. The request file Upload.DTT was created using Client Access for Windows Data Transfer.
5. Most imported Data Transfer To AS/400 requests require a File Description File. The request you imported is one such request. The File Description File describes the type and contents of the data file. Copy and paste or enter the name of the File Description File specified in the transfer request (**c:\walab\database\Upload.FDF**) into the File description file field. Click **Continue**.
6. You should now see the Import Copy Data to Table Request panel. Change the library portion (WAXxLIB) on the Table to Receive Data section, **Table** entry, from WAXxLIB.UPLOAD to the **i5/OS Library Name**

- on from the lab worksheet. The resulting name should look like WA01LIB.UPLOAD (if you were Team 01).
7. Click **Save Request...** to save your imported request.
 8. On the Save Request panel, type **Upload Request** in the Request name field.
 9. Type **My Upload Request** in the Description field. Click **Save Request** to save the request.
 10. Remain on the **Save Request** panel. You will start here in the next task.

Task 2: Copying a PC file to i5/OS using Copy Data to Table

System i Access for Web allows you to copy a file from your workstation into a relational database table in i5/OS.

This function is available via the Copy data to table item on the Database tab. Data may either be copied to an existing or new database table. If data is copied to an existing table it may either replace the data in the table or be appended to the table.

The following steps show you how to create a new table based on the Data Transfer request information you imported in the previous task.

1. On the Save Request panel click the **Run Upload Request** link. This will take you to the Copy Data to Table panel.
2. Notice the "Note" in the File to Copy section.
3. Type or use the **Browse** button to enter **C:\walab\database\Upload.xls** into the File field.
4. Click the **Copy Data to Table** button.
5. You should see a panel with the message (where xx as your team number) "Table WAXxLIB.UPLOAD does not exist." Choose the **View or change column definitions before creating the table** radio button and click **OK**.
6. On the **Table Column Definitions** panel you need to change some of the column types to match the types in your data. Notice by default that most columns are all of type CHAR.
7. In the **ExpDate** row use the drop list in the **Type** column to change the column type from CHAR to **DATE**.
8. In the **ExpTime** row use the drop list in the **Type** column to change the column type from CHAR to **TIME**.
9. In the **HomePage** row use the drop list in the **Type** column to change the column type from CHAR to **DATALINK**.
10. Add a description for each table column by typing it into the description column. For example, enter Expiration Date for column ExpDate.

11. Click **Create Table** to create the new table and populate your new table with data from the Excel spreadsheet Upload.xls.
12. You should receive a message stating that data was successfully uploaded to the table. You will be working with this table in the tasks to follow.

Task 3: Viewing a Table

This task shows you how to change the list of tables shown in the table list and how to view a database table.

1. Click on the **Database** navigation tab on the left side of your browser window.
2. Click the **Tables** function to display the list of tables in your user library list.
3. Note the value of the Tables filter at the top of the page is *USRLIBL.
4. Click on the **Database Preferences** link at the bottom of the page.
5. Change the **Table filter** preference to the *i5/OS Library Name* value from the lab worksheet.
6. Click **Save**, to return to the Tables list.
7. Note the Tables filter at the top of the page is now your library name and the list now contains the tables in your library.
8. Choose the **Quick view** icon (in the Action column) for the table you created in task 2 above.

Task 4: Finding a Record

This task shows you how to display the contents of a database table record.

1. Click on the **Database** navigation tab on the left side of your browser window.
2. Click the **Tables** function to display the list of tables in your library.
3. Choose the **Find Record** icon (in the Action column) for the table you created in task 2 above.
4. Enter 600 in the **CREDIT** field.
5. Click the **Find Record** button.
6. If no records exist with this value, an empty list is shown. If multiple records exist with this value, a list is shown with all matching records. Choose the **View** action for the record you want to view. If only one record exists with this value, you are automatically taken to step 7 without having to take any action.

7. The contents of the record are shown.

Task 5: Inserting Records into an Existing Table

This task shows you how to insert records into a database table.

1. Click on the **Database** navigation tab on the left side of your browser window.
2. Click the **Tables** function to display the table list.
3. Choose the **Insert** icon (in the Action column) for the table you created in task 2 above.
4. Note there are no * next to any of the fields. When the file was created, all fields were defined as null capable, which means you are not required to enter data for the fields.
5. Enter column values. Some suggested values are listed below.
6. Click the **Insert Record** button
7. Click the **Insert another record** link, to insert more records.
8. When you are finished inserting records, click the **Back** link to return to the Tables list

Suggested values for inserting:

- The first three fields: **NAME**, **ADDRESS**, and **PHONE** are character fields. You can try anything you would like for these.
- Things to try for the **CREDIT** field:
 - character data
 - 6,7 (incorrect decimal separator). Note: The decimal separator can be set on the JDBC URL, when you define a new database connection.
 - 777777777 (a nine digit number)
 - 78.78
- Things to try for the **EXPDATE** field:
 - CURRENT_DATE (Note: It must be all uppercase. This is a supported SQL register value that will insert the current system date)
 - 2001.08.22 (incorrect date format) Note: The date format can be set on the JDBC URL, when you define a new database connection.
 - 08/22/01

- Things to try for the **EXPTIME** field:
 - CURRENT_TIME (Note: It must be all uppercase. This is a supported SQL register value that will insert the current system time)
 - 12:20 (missing seconds)
 - 12:20:30

- Things to try for the **HOME PAGE** field:

Note: Errors with datalink values cannot be detected with regular data type validation. If there is an error with a datalink value, it is found when trying to insert the record into the table. Therefore, errors with datalink values are displayed like other insert errors, on a new page, and not on the insert form like you saw with incorrect numeric, date, and time values. After receiving the datalink error, use the browser back button to return to the insert form. The browser may use a cached version of this page, so you still might see data type mismatch errors for other fields even if you have valid values for these fields. You can ignore these errors in this case.

- www.ibm.com/index.html (error - missing protocol)
- http://www.ibm.com (error - missing file)
- http://www.ibm.com/index.html

Task 6: Updating and Deleting Existing Table Records

This task shows you how to change values in existing table records and how to delete records from a database table.

1. Click on the **Database** navigation tab on the left side of your browser window.
2. Click the **Tables** function to display the table list.
3. Choose the **Update** icon (in the Action column) for the table you created in task 2 above.
4. In the **NAME** field, type **J%** (make sure the J is uppercase).
5. Click the **Select Records** button. You should see all records with names beginning with J.
6. Click the **Back** button
7. Remove the J% from the name fields and type 600 in the **CREDIT** field.

8. Click the **Select Records** button. You should see all records with credit values equal to 600.
9. Click the **Back** button
10. Remove the 600 from the CREDIT field
11. Click the **Select Records** button with all field values being blank. You should see all of the records in the file.
12. Click the **Update** link, next to a record you want to update.
13. Change some values.
14. Click the **Update Record** button.
15. Click **Refresh records to update** and verify your changes.
16. Click the **Delete** link, next to a record you want to delete.
17. Click the **Delete Record** button.
18. Click **Refresh records to update** and verify the record was deleted.

Task 7: Using the SQL Wizard to Create a Request

This task shows you how to build an SQL SELECT statement using the SQL Wizard.

1. Click on the **Database** navigation tab on the left side of your browser window.
2. Click the **Run SQL** option.
3. Click the **SQL Wizard** button.
4. Note the partial SELECT statement at the top. Also note the most of the tabs are disabled. These tabs are enabled once a valid table name is chosen. If the chosen table does not contain any columns on which we support building conditions, the condition tab will remain disabled.
5. Click the **Next** button or the second tab (**Table**).
6. Click the **Find...** button.
7. Make sure the WAXXLIB library containing your table is listed in the table filter and click the **Find Now** button.
8. Select your table and click the **OK** button.
9. Note: The SELECT statement was updated and three tabs of the disabled tabs are now enabled.
10. Click the **Next** button or the fourth tab (**Columns**).
11. Select some columns in the list.
12. For the chosen columns, select **Column description** for the heading of some and **Column name** for the heading of the others.
13. Click the **Column Order** button.
14. Change the value before one of the columns to 100.
15. Click the **OK** button
16. The Column list has now been updated. The Column that 100 was entered for is now the last Column that has been selected.

17. Click the **Next** button or the fifth tab (**Condition**)
18. Click the **Add New Condition** button.
19. Note: The HOMEPAGE field is not in the column list. This is because we do not support building conditions on DATALINK fields, through the wizard.
20. Choose the **CREDIT** column and click the **Next** button.
21. Choose the **Between** operator and click the **Next** button.
22. Select the **Specify condition values now** option and click the **Next** button.
23. Click the top **Find Value** button.
24. Click the **Find Now** button.
25. Select the second value.
26. Click the **OK** button.
27. Click the bottom **Find Value** button.
28. Click the **Find Now** button.
29. Select the second to the last value.
30. Click the **OK** button.
31. Click **Finish Edit** button.
32. Click the **Add New Condition** button.
33. Choose **Find fewer rows (AND)** at the top.
34. Choose the **EXPDATE** column and click the **Next** button.
35. Choose the **Before the date** operator and click the **Next** button.
36. Select the **Specify condition value now** option and click the **Next** button.
37. Type in **CURRENT_DATE**.
38. Uncheck **Value is constant**. By doing this, the value will not be put in quotes.
39. Click the **Finish Edit** button.
40. Click the **Next** button or the **Sort** tab.
41. Choose a column to sort by and select **Descending**.
42. Click the **Finish** button.
43. Read the information that is displayed on the next page and click the **Continue** button.
44. Click the **Run SQL** button.
45. Click the **Back** button.
46. Try different output types and settings, if desired.
47. On the Run SQL page, click the **Save Request** button.
48. Enter a request name, in the **Request name** field.
49. Click the **Save Request** button.

Task 8: Using the SQL Wizard to Create a Dynamic Request

This task shows you how to build a more powerful SQL SELECT statement using the SQL Wizard. Instead of providing static values to be used in the query, this

example will show how to retrieve query input from the user when the request is run.

1. Click on the **Database** navigation tab on the left side of your browser window.
2. Click the **Run SQL** option.
3. Click the **SQL Wizard** button.
4. Click the **Next** button or the second tab (**Table**).
5. Click the **Find...** button.
6. Make sure the WAXXLIB library containing your table is listed in the table filter and click the **Find Now** button.
7. Select your table and click the **OK** button.
8. Click the **Next** button twice or select the fifth tab (**Condition**).
9. Click the **Add New Condition** button.
10. Choose the **CREDIT** column and click the **Next** button.
11. Choose the **Between** operator and click the **Next** button.
12. Select the **Prompt for condition values when request is run** option and click the **Next** button.
13. Select the **Select from list of existing column values** option.
14. Click the **Next** button.
15. Read the information on the page to understand how existing data values are handled. Click the **Next** button.
16. Take note that the existing values are being displayed in the range fields. Click **Next** button.
17. Select the **Text and Label** option from the drop down list. Click the **Next** button.
18. Type **Categorize amount owed by range** in the **Specify prompt text** entry area.
19. Type **Owes at least:** in the **Lower limit:** field.
20. Type **Doesn't owe more than:** in the **Upper limit:** field.
21. Click the **Finish Edit** button.
22. Click the **Next** button.
23. Select the **Edit** icon (in the Action column) next to Caption.
24. Enter **Find Customers** in the entry field.
25. Click the **OK** button.
26. Select the **Edit** icon (in the Action column) next to Template File.
27. Click the **Browse** button. Find the **walab** directory.
28. Click on the **walab** link. Click on the **db** link.
29. Select the **dbtemplate.htm** radio button. Click the **Select** button.
30. The file name should be filled in. Click the **OK** button.
31. Click the **Next** button.
32. Click the **Finish** button.
33. Carefully read the information on the page. Click the **Continue** button.
34. Notice the dynamic SQL statement has been generated for you. Click the **Run SQL** button.

35. A web form is displayed to allow you to dynamically perform a customer query based on the amount that is owed to our company.

This task was designed to show users the power of dynamic queries, but with a minimal amount of steps to introduce the concept. To take advantage of the full power of this function, users can change the output type for the data to HTML, and tailor how the results are displayed. Additional links or other HTML content can also be provided in the template that is currently used in this example to wrap the data table. For the most advanced functionality, users would create their own dynamic SQL query and provide an HTML form that is tailored for their needs. See the System i Access for Web documentation for more information.

Task 9: Working with Requests

This task shows you how to edit, copy, rename and delete requests. It also shows how to create public and user shortcuts.

1. Click on the **Database** navigation tab on the left side of your browser window.
2. Click the **My Requests** function to display a list containing requests you created and shortcuts other users created, to which you have access.
3. Click the **Create shortcut** icon (in the Action column), next to the request you created in task 7.
4. In the **Shortcut name** field, type in a name.
5. Set the **Access** field to *PUBLIC.
6. Click the **Create Shortcut** button.
7. Verify your shortcut is in the list.
8. Click the **Edit** icon (in the Action column) next to the request you created in task 7.
9. Click the **Save Request** button
10. Change the **Description**.
11. Check the **Replace if already exists** box.
12. Click the **Save Request** button.
13. Click the **My Requests** link.
14. Note: The shortcut picked up the new description.
15. Click the **Rename** icon (in the Action column) next to the request you created in task 7.
16. Type a value for the **New Name**
17. Click the **Rename Request** button
18. Click the **Run** icon (in the Action column) next to the shortcut and verify it still runs correctly.
19. Click the browser's **Back** button.

20. Click the **Copy** icon (in the Action column) next to the renamed request you created in task 7.
21. Type a value for the **New request**.
22. Note: You do not specify an access value on a copy. The access value for a request (not a shortcut) is always the current user profile.
23. Click the **Copy Request** button.
24. Click the **Delete** icon (in the Action column) next to the renamed request you created in task 7. Note: The original request should be deleted, not the copy.
25. Click the **Delete Request** button.
26. Verify both the request and the shortcut were deleted.
27. Click the **Create shortcut** icon (in the Action column) next to the copied request you created in step 23 above.
28. In the **Shortcut name** field, type in a name.
29. In the **Access** field, type the user profile of the person sitting next to you.
30. Click the **Create Shortcut** button
31. Note: The shortcut does not show up in your request list. This is because you do not have access to it, you gave the user next to you access to it.
32. Click the **Shortcuts to requests you manage** at the bottom of the list.
33. Note: The shortcut you created shows up in this list, so it can be deleted if needed.

Task 10: Running an SQL Statement

This task shows that you can run statements other than SELECTs, using Run SQL.

1. Click on the **Database** navigation tab on the left side of your browser window.
2. Click the **Run SQL** option.
3. In the **SQL Statement** field, type **DROP TABLE WAxLIB.UPLOAD** (where xx is your team number).
4. Pick any **SQL Output** type.
5. Click the **Run SQL** button.
6. Note: If the SQL statement does not generate output data, the statement completion message will be displayed in the browser, regardless of the output type.

Task 11: Viewing a chart

This task shows that you can view the results of a SELECT statement as a chart using Run SQL. The chart is Scalable Vector Graphic (SVG) which is an XML vector image format supported by many browsers and other applications. The settings can be used to select the type of chart and the appearance of the chart.

Note: Internet Explorer requires a plug-in in order to view SVG documents (one such plug-in is available from Adobe). Mozilla Firefox has native support for SVG.

1. Click on the **Database** navigation tab on the left side of your browser window.
2. Click the **Run SQL** option.
3. In the **SQL Statement** field, type **SELECT LSTNAM, BALDUE FROM QIWS.QCUSTCDT**.
4. Pick **Scalable Vector Graphics Chart (.svg)** for the **SQL Output** type.
5. Click the **Settings** button for the SQL Output Type field to view the settings that are available for formatting the chart. This task will create a default bar chart. Click the **Cancel** button to return to the Run SQL page.
6. Click the **Run SQL** button.
7. The chart is displayed.

Task 12: Enabling the use of E-Mail

System i Access for Web allows you to e-mail database query results, printer output PDFs, command completion notifications, and i5/OS IFS files to anyone with an e-mail address.

The mail function is available from several places in System i Access for Web, including Database and Commands. You can also customize System i Access for Web so that when items are placed in your personal folder, an e-mail notification will be sent to let you know something new has been placed in the folder.

To use the Mail function, you must first have an e-mail address configured for your user profile and an SMTP server available to receive e-mail from System i Access for Web.

Each user's e-mail address and SMTP server information needs to be configured in the Mail Preferences portion of the Customize tab on the System i Access for Web navigation bar.

The following steps will guide you through configuring the e-mail function. You will need to be logged on to System i Access for Web as an Administrator to complete these steps.

1. Click the **Customize** navigation tab on the left side of your browser window.
2. Click the **Policies** link.
3. Enter the i5/OS User ID you logged on as in the Profile edit box, and then select the **Edit Policies** button.
4. Choose the **Edit Policies - Mail** action for the mail category.
5. Go to the **Send Mail** policy row, select the Allow / Deny control and choose **Allow**.
6. Go to the **SMTP mail server** policy row, enter an SMTP server name using the value from the lab instructions package.
7. Go to the **E-mail address** policy row, enter an e-mail address using the value from the lab instructions package.
8. (OPTIONAL) As an administrator, if you don't want a user to be able to change the email address associated with their user profile, go to the **E-mail address is user preference** row, select the Allow / Deny control and choose **Deny**. If this step is not performed, a user is allowed to change their email address via the **Preferences** link.
9. Click **Save** to save the policy settings.
10. Choose the **Edit Policies – My Folder** action for the My folder category.
11. Go to the **Notify on new folder items** policy row, select the Yes/No control and choose **Yes**.
12. Go to the **E-mail address to notify** policy row. It should be defaulted to the value entered in step 7 above. If it is not set to the value entered in step 7, enter an e-mail address using the value from the lab instructions package.
13. Click **Save** to save the policy settings.

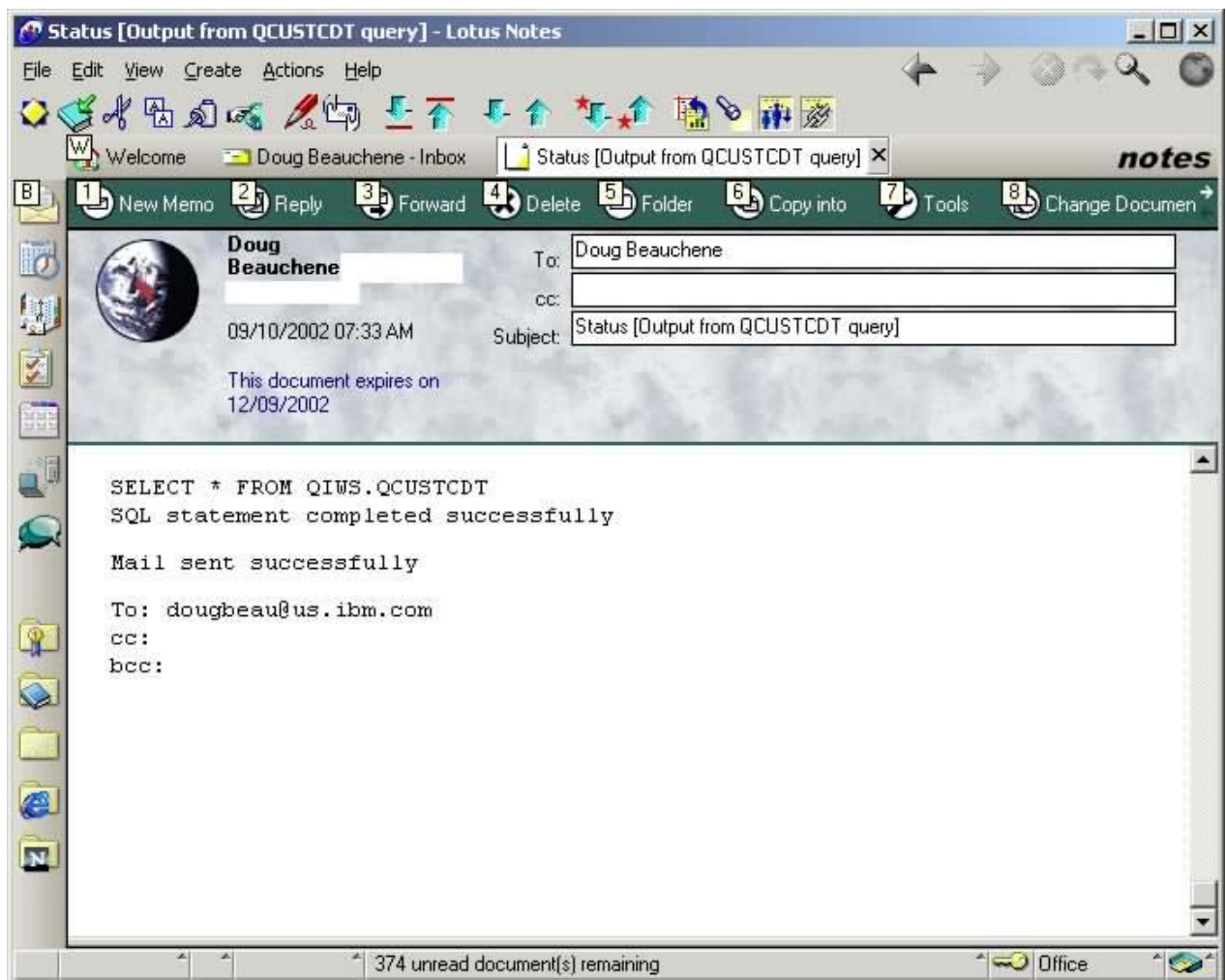
Task 13: Query results sent to E-mail

This task shows that you can run queries and have the results sent to an e-mail address.

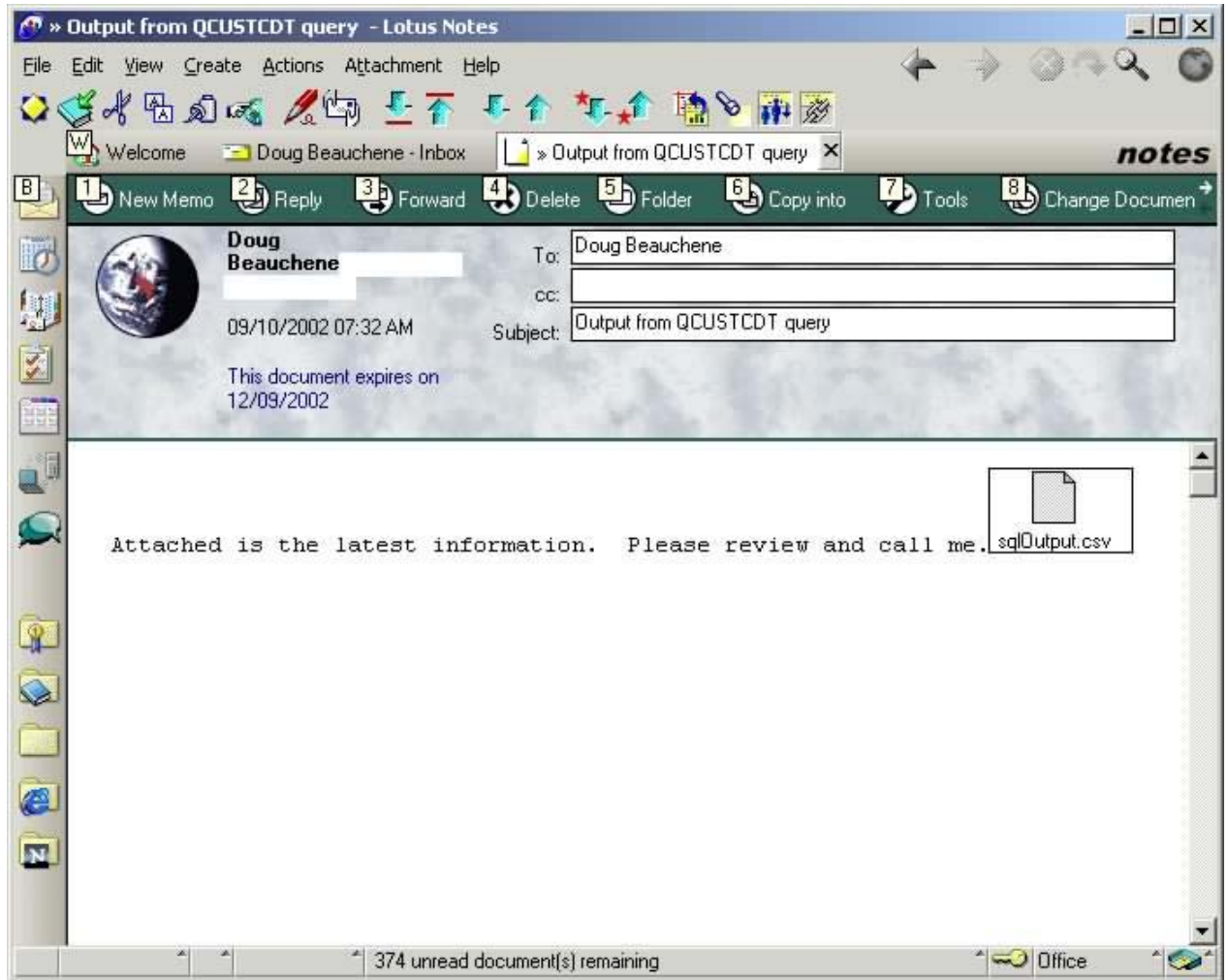
1. Click on the **Database** navigation tab on the left side of your browser window.
2. Click the **Run SQL** option.
3. In the **SQL Statement** field, type **SELECT * FROM QIWS.QCUSTCDT**.
4. Pick an **SQL Output Type** of **Comma Seperated Value (.csv)**.
5. Pick an **SQL Output Destination** of **Mail as attachment**. Select the Settings button.

6. In the **To:** field you could enter any e-mail address (your address or a colleague's). For this task, please pick the email address from the lab worksheet.
7. In the **Subject:** field enter **output from QCUSTCDT query**.
8. In the text box field, enter **Attached is the latest information. Please review and call me.**
9. Click the **OK** button.
10. Click the **Run SQL** button. If the network this lab is running on is configured for email, you should get an email item. Check for your email now. If you aren't sure how to check your email, refer to the **Lab Instructions**. If the network this lab is running on is not configured for email, no e-mail can be sent out.

If the network is configured for e-mail, a status e-mail message (like the one shown below) is sent to your e-mail address with the results of the request.



An e-mail with an attached file containing the result of the query is sent to the e-mail address(es) contained in the To: field.



The attached file viewed using Excel.

	A	B	C	D	E	F	G	H	I	J	K
1	CUSNUM	LSTNAM	INIT	STREET	CITY	STATE	ZIPCOD	CDTLMT	CHGCOD	BALDUE	CDTDUE
2	938472	Henning	G K	4859 Elm	Dallas	TX	75217	5000	3	37	0
3	839283	Jones	B D	21B NW 1	Clay	NY	13041	400	1	100	0
4	392859	Vine	S S	PO Box 79	Broton	VT	5046	700	1	439	0
5	938485	Johnson	J A	3 Alpine W	Helen	GA	30545	9999	2	3987.5	33.5
6	397267	Tyron	W E	13 Myrtle	Hector	NY	14841	1000	1	0	0
7	389572	Stevens	K L	208 Snow	Denver	CO	80226	400	1	58.75	1.5
8	846283	Alison	J S	787 Lake	Isle	MN	56342	5000	3	10	0
9	475938	Doe	J W	59 Archer	Sutter	CA	95685	700	2	250	100
10	693829	Thomas	A N	3 Dove Cir	Casper	WY	82609	9999	2	0	0
11	593029	Williams	E D	485 SE 2	Dallas	TX	75218	200	1	25	0
12	192837	Lee	F L	5963 Oak	Hector	NY	14841	700	2	489.5	0.5
13	583990	Abraham	M T	392 Mill St	Isle	MN	56342	9999	3	500	0
14											
15											
16											

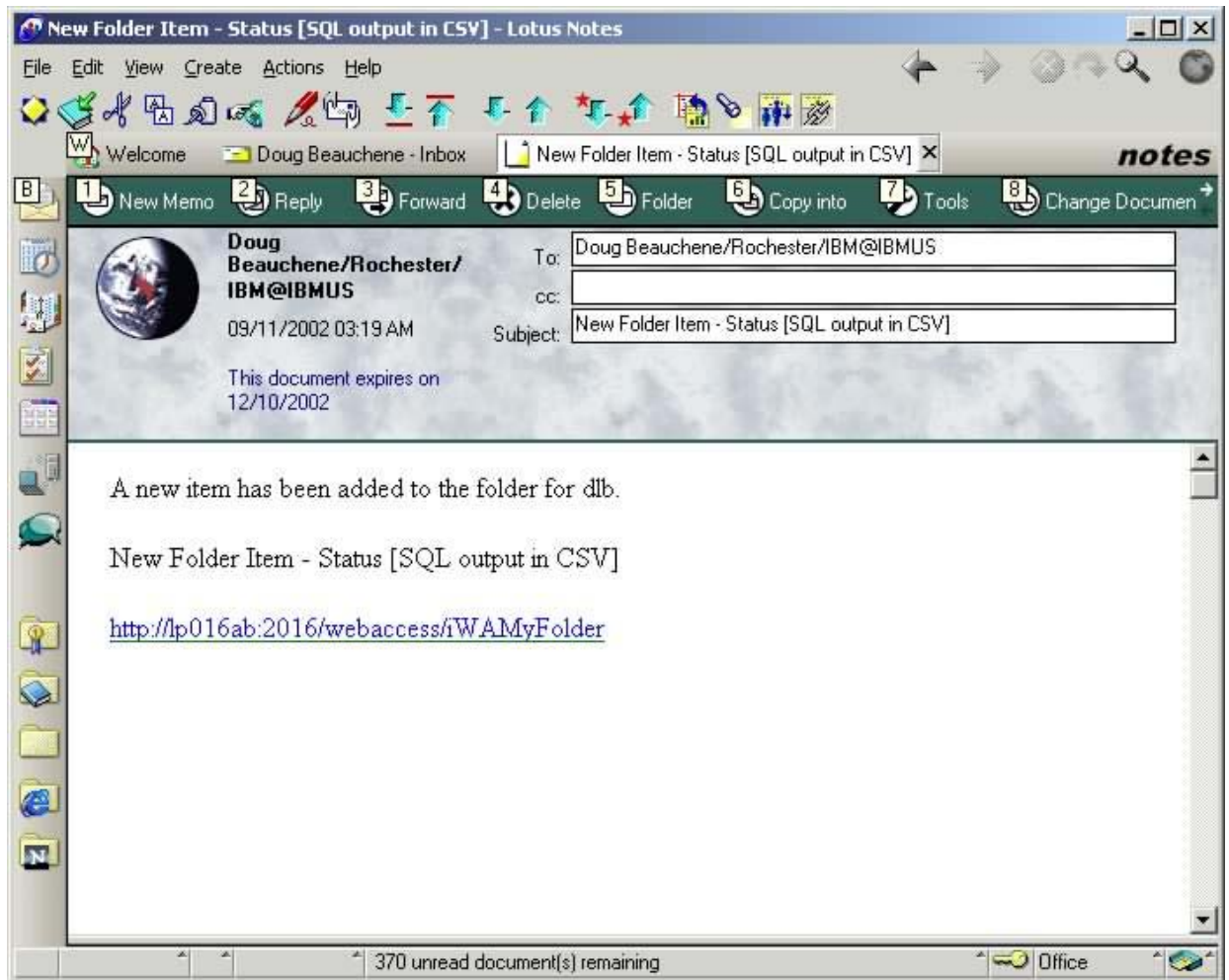
Task 14: Query results sent to "My Folder"

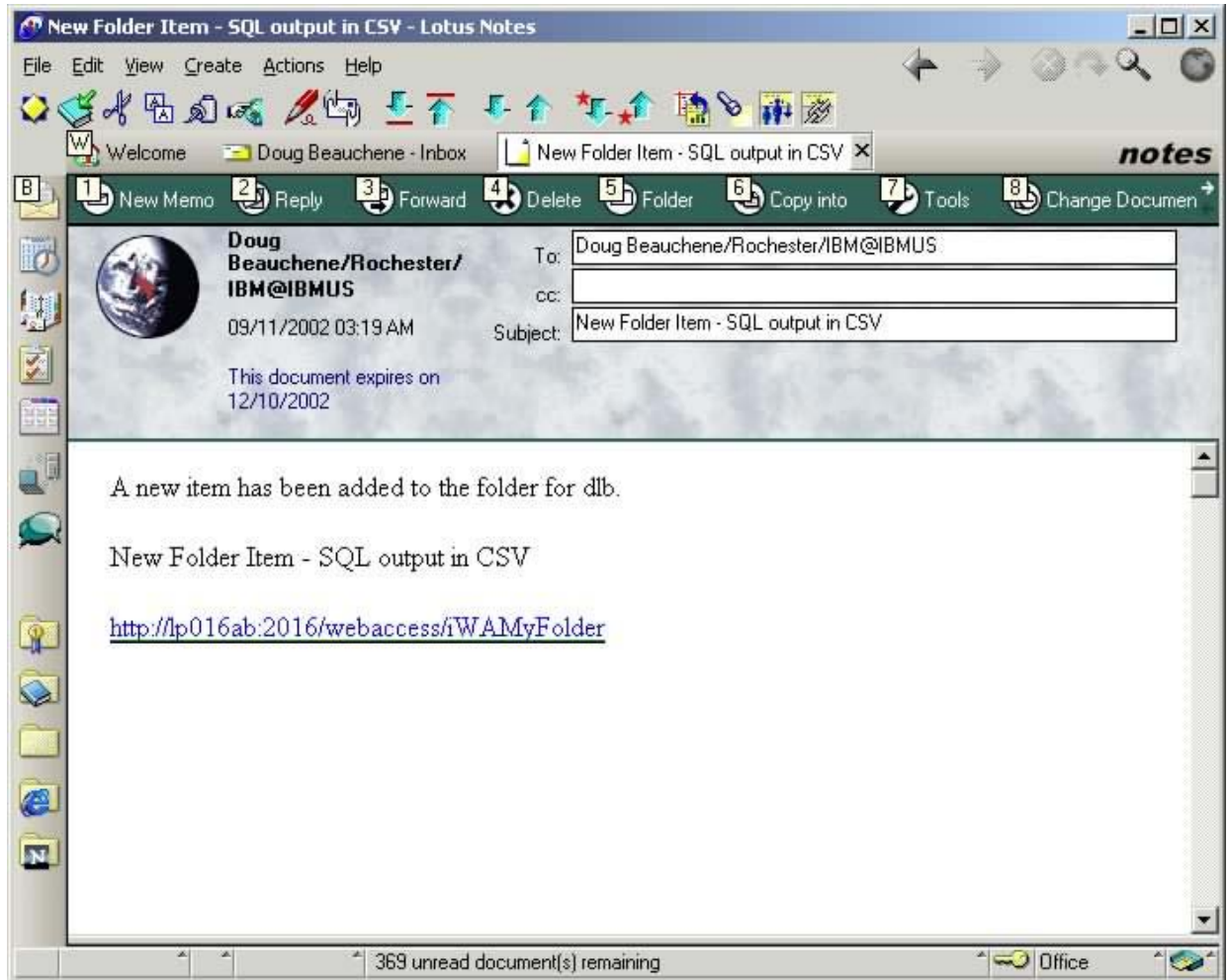
This task shows that you can run queries and store the result to various file formats into the signed on user's "My Folder" container, or other users' "My Folder" containers.

1. Click on the **Database** navigation tab on the left side of your browser window.
2. Click the **Run SQL** option.
3. In the **SQL Statement** field, type **SELECT * FROM QIWS.QCUSTCDT**.
4. Pick an **SQL Output Type** of **Comma Seperated Value (.csv)**.
5. Pick an **SQL Output Destination** of **Personal folder**. Select the Settings button.
6. In the **Item description** field enter **My QCUSTCDT Query result**.
7. In the Folder owner field, you can have the resulting query result stored in your own folder, or by clicking the Browse button, you can select another user's folder. For this lab, just leave the field as defaulted, to store the results to your folder.
8. Click the **OK** button.
9. Make note of the current look of the "My Folder" icon in the upper left of the window above the System i Access for Web navigation bar.
10. Click the **Run SQL** button.

11. After the query completes, click on the **Database** navigation tab.
12. The "My Folder" icon should now be updated to indicate there is something new in "My Folder". Select the "My Folder" link.
13. There should be 2 new unopened items in "My Folder". One is your output, the other is a status item for the query you ran.

If the network this lab is running on is configured for email support, check your email now. If the network this lab is running on is not configured for email, no e-mail can be sent out. If it were connected, the result would look like the e-mail below. Two e-mails are sent, one for the status file, one for the result file.





14. Click the **Open** icon (in the Action column) on item **My QCUSTCDT Query result** to view the query results. Click the browser back button, or close the window (if the output was opened in a new window) when done viewing the query results.
15. Click the **Open** icon (in the Action column) on the item **Status [My QCUSTCDT Query result]**. Click the browser back button when done viewing the status information.
16. Select all items in "My Folder", select **Delete selected items** from the drop-down list near the top of the page, and click the **Perform action** image (to the right of the drop-down list) to delete all files from "My Folder". Select the **Delete** button when asked to confirm your request to delete selected items.

Task 15: Query results sent to Integrated File System

This task shows that you can run queries and have the results sent to the i5/OS Integrated File System.

1. Click on the **Database** navigation tab on the left side of your browser window.
2. Click the **Run SQL** option.
3. In the **SQL Statement** field, type **SELECT * FROM QIWS.QCUSTCDT.**
4. Pick an **SQL Output Type** of **Comma Seperated Value (.csv).**
5. Pick an **SQL Output Destination** of **Integrated File System.** Select the **Settings** button.
6. Click the **Browse...** button.
7. Scroll to the bottom and click on the **walab** link (Do not click the circle to the left of the link).
8. Click the **db** link.
9. Click the circle next to the directory named **waxxdir** (where xx is your team number)
10. Click the **Select** button.
11. Add **/qcustcdt.csv** to the end of the **File:** field. The resulting value should be: **/walab/db/waxxdir/qcustcdt.csv**
12. Click the **OK** button.
13. Click the **Run SQL** button. A status message is displayed stating the status of the request will be placed in your personal folder when the request completes.
14. Click the **My Folder** link at the top left of your browser window. There should be a folder item named: **Status: SQL output to Integrated File System.** If you do not have an item with this name, click on the **Refresh list** action until it appears.
15. Click on the **Open** action for this item.
16. The folder item contains the status of the SQL statement and a link to the resulting file, if the request completed successfully. Click on the link to see the results of the statement.
17. Click the browser back button when you are done viewing the results.

Task 16: Importing a query

This task shows how to import Query Manager (*QMQRV) and Query for i5/OS (*QRYDFN) files into System i Access for Web and save them as Run SQL requests.

1. Click on the **Database** navigation tab on the left side of your browser window.
2. Click the **Import query** option.
3. Read the note at the top of the page and the details at the bottom of the page to learn about the types of queries supported.
4. Click the **Find...** button.
5. For the **Query library:** field, enter **weblib**.
6. For the **Query type:**, choose **DB2 for i5/OS Query Manager (*QMQRV)**
7. Click the **Find Now** button.
8. Click on **WEBLIB/QRYDB2** in the **Queries:** list.
9. Click the **OK** button.
10. Click the **Import Query** button.
11. A page is displayed with information to consider before proceeding with the import. Read through this information carefully.
12. Click the **Continue** button when you have finished reading.
13. The imported statement is shown. Click on the **Run SQL** button.
14. The statement fails with the following error: **SQL request failed: [SQL5016] Qualified object name "QCUSTCDT" not valid.** We get this error because the imported query used a forward slash (/) to separate the library and the table name, but the default connection used by System i Access for Web expects a period (.) as the separator character.
15. Click the browser back button.
16. In the **SQL Statement:** area, change the separator from a forward slash to a period. The resulting statement should be: **SELECT A.CUSNUM, A.LSTNAM, A.BALDUE FROM "QIWS"."QCUSTCDT" A ORDER BY A.BALDUE DESC**
17. Click the **Run SQL** button. The statement should run successfully this time.
18. Click the browser back button.
19. Click the **Save Request...** button.
20. For the **Request name:** field, enter **Imported Query**
21. Click the **Save Request** button. Now the imported query is saved in System i Access for Web format and can be run from the **My Requests** list like any other saved request.

Task 17: Extracting i5/OS object data to a database table

This task shows how to extract information about objects in i5/OS (e.g. user profiles, messages, software fixes, etc.) and store it in a database table. After the information is in the table, it can be queried and modified like any other database table. Note: The data stored in the table is a snapshot of the object information. If you want to query the current object information, you would need to run the extract request again.

1. Click on the **Database** navigation tab on the left side of your browser window.
2. Click the **Extract i5/OS data** option.
3. Click the down arrow on the **Objects:** list. Scroll through the list to see the types of objects for which you can retrieve information. The library, name, type, status, size, owner, and description can be extracted for object types in the list that begin with “**i5/OS objects –** “. Type-specific information can be extracted for all other objects types in the list.
4. Select **User profiles** from the list.
5. For the **Table:** field, enter **WAxxLIB.EXTRACT** (where xx is your team number).
6. The results of the extract request can be sent to the browser, your e-mail address (if e-mail is configured), or your folder. E-mail and folder are good options to use if you have many objects on your system and you expect the query to run for a long time. These options will not tie up the browser while the data is being extracted and the table is being created. Choose the **Browser** output option here, since there shouldn't be a lot of profiles on this system.
7. Click the **Extract Data** button.
8. A page is displayed with the list of all possible information you can retrieve about user profiles. Click on the square boxes next to the **Name** and **StorageUsed** columns.
9. Click the Extract Data button.
10. After the request completes, a status page is displayed. The first line tells you how many objects (user profiles in this case) were found on the system. Next, two links are provided for you to work with the created table. Choose the **Work with WAxxLIB.EXTRACT** link. This takes you to a table list like you saw in task 3. The table filter in this case only contains the table we just created.
11. Click the browser back button.
12. Choose the **Query WAxxLIB.EXTRACT** link. Run SQL is shown with the SQL Statement initialized to a SELECT of the entire contents of the new table.
13. Click the **Run SQL** button. The contents of the table are shown. This information would be more interesting if it was sorted by the amount of

- storage used, so we will use the SQL wizard to modify the SELECT statement.
14. Click the browser back button.
 15. Click the **SQL Wizard** button.
 16. Click the seventh (**Sort**) tab.
 17. Click the box next to the **STORAGEUSED** column.
 18. Choose **Descending** for the sort **Direction**.
 19. Click on the **Finish** button.
 20. Click the **Continue** button.
 21. Click the **Run SQL** button. The contents of the table are shown again, with the user profiles consuming the most storage listed first.
 22. Click the browser back button when you are finished viewing the results.

Congratulations!

You have completed this System i
Access for Web lab!

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