**Spring 2015 SQL Class**

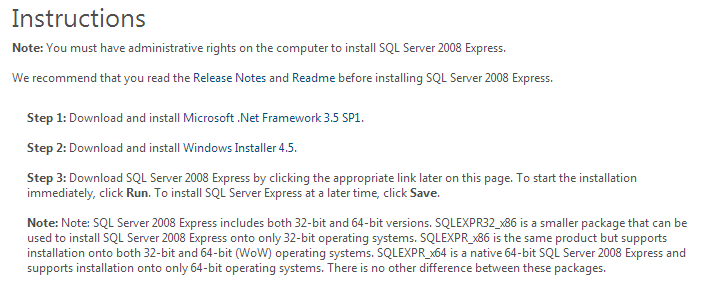
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**Week 1 Actions**

* Send me an email, now while I’m speaking: Use your name as the Title of the email and list the following inside
  1. What Email address do you want me to use for this class
  2. Do I have permission to include you in group mailings, Yes or No
  3. What is your Major
  4. What are you: Junior, Senior, Graduate Student, etc
  5. Do you plan to graduate this semester
  6. What database experience do you have, which products, how much, what level
  7. Do you use SQL, how much, what level
  8. What other types of programming languages have you used
* Group mailings: I would like to be able to send messages to all of the class at one time and all the members of the class will know how to reach each other to ask questions.
* I will email you a copy of the syllabus and various other handouts, files, etc. both tonight and as we go along, part of your class obligation is to check your email each day, just in case I have something important to pass along to you. DON’T leave tonight without having got the Week 1 packet from me via email.

* I highly encourage each of you to buy/use a USB drive for this class as you will be working on your projects in multiple locations (School, Home, Work…) and problems will arise if you do not. You are welcome to bring your personal laptop to class and use it here like you will outside of class, this will alleviate the need for the USB drive.

* By Sunday I would like each of you to go to <http://msdn.microsoft.com/en-us/evalcenter/dn434042.aspx> , download and install Microsoft SQL Server 2014 Express which is the software you will be using for this class. You should download Express with Tools so you get Management Studio which is the interface we use to write our SQL Code and access databases
* If you are using a 64bit operating system you can download option 1, if you are using a 32 bit operating system or are UNSURE of what you are using download option 2, DO NOT download option 3. Follow the instructions mentioned below, make sure you have administrative rights on your computer (which you probably should have).



* This link <http://www.sqlcoffee.com/SQLServer2008_0013.htm> shows how to install the software step by step with pictures. Your installation will vary just a little from the example as they are installing the Enterprise version and you are installing the Express version, but they are basically the same.

* If you do a web search you can find multiple articles/you-tubes, etc that will walk you through the process.
* You should be able to install it okay on your own, there is one spot students sometimes get stuck, its on the Server Configuration page…here is an abstract from Microsoft that might help clarify what they are looking for

“On the Server Configuration — Service Accounts page, specify login accounts for SQL Server services. The actual services that are configured on this page depend on the features that you selected to install. You can assign the same login account to all SQL Server services, or you can configure each service account individually. You can also specify whether services start automatically, are started manually, or are disabled. Microsoft recommends that you configure service accounts individually to provide least privileges for each service, where SQL Server services are granted the minimum permissions they have to have to complete their tasks. For more information, see SQL Server Configuration - Service Accounts and Setting Up Windows Service Accounts. To specify the same logon account for all service accounts in this instance of SQL Server, provide credentials in the fields at the bottom of the page. Security Note Do not use a blank password. Use a strong password. When you are finished specifying login information for SQL Server services, click Next.**”**

* You can email me questions, you can also talk to David Ellis, he is the Technology Specialist for the School of Management and is located in ANDR 317, his phone number is 989-8166 and he has agreed to help anyone who is stuck and brings their laptop in during normal hours when he is here. Please try on your own first and/or talk to me before using him as your resource as I don’t want to over use him.
* OPTIONAL: Microsoft operates a website [www.dreamspark.com](http://www.dreamspark.com) where you can set up an account, and receive FREE development software as a student. Be sure to use you Purdue email account to set it up as they use that to verify that you are indeed a student. You will also receive a Hotmail account as part of the process, it will take them a couple of days to verify you and give you permission to download. You are entitled to download EVERYTHING on the site
* Copy the sample database, script and ebook (it is about SQL Server 2005 Express, but 90%+ stills applies to 2008) that I email you to your flash drive so you’ll be ready to start
* This link <http://msdn.microsoft.com/en-us/library/bb934498.aspx> has a decent tutorial on how Management Studio works, this is the environment that we will be using to write and execute our SQL scripts. You also need to read pages 44-56 in the eBook that I will email you. It is a brief introduction to Management Studio and shows how to attach the sample databases to your installation in case you don’t remember what we cover tonight.
* The following Webliography has sites that might be of interest to you in your pursuit of learning SQL, I’ve only listed 7 sites, there are 100s of potential sites that offer information on SQL, if you find any really interesting ones, be sure to pass them along to me and the rest of the class.
  1. <http://www.w3schools.com/sql/default.asp>
  2. <http://www.sqlcourse.com/index.html>
  3. <http://www.sql-tutorial.net/>
  4. <http://sqlzoo.net/>
  5. <http://www.quackit.com/sql/tutorial/>
  6. <http://www.sqltutorial.org/>
  7. <http://www.sql-tutorial.com/>
* You will probably want/need to visit MS SQL Server 2008 Books Online - <http://msdn.microsoft.com/en-us/library/ms130214.aspx> frequently during your work.

When installing the software, you have the choice to install Books Online or not, I recommend that you always install it. It will take up a little more HD space but it speeds things up and you will probably use it regularly

* Let’s review how to use Management Studio to attach the sample databases to your installation of SQL Server so you are ready to run queries. (You are required to attach the databases to your installation and take a Print Screen to show me it is done, copy the Print Screen into an email and send it to me by Sunday, THIS IS A GRADED ASSIGNMENT). Remember that pages 44-56 in the eBook contain this information just in case you have forgotten how.

* I want you to copy the script that is in your Week 1 email packet into a new query in Management Studio and execute it, it will create a new database called WORKPLACE. (You are required to create the database and take a Print Screen to show me it is done, copy the Print Screen into an email and send it to me by Sunday, THIS IS A GRADED ASSIGNMENT).
* I will be emailing you separately with queries that you are to do for next weeks class. (These should be done before you come to class on Wednesday. The following website <http://www.firstsql.com/tutor2.htm> has a decent introduction to the statements that you will need (SELECT, FROM, WHERE) and you should read Chapter 4 in your book for a more in-depth introduction to the material. You need to turn these in following the submission requirements that we discussed in class. THIS IS A GRADED ASSIGNMENT)
* I would like you do some research and present your results to me by Next Monday. The question is “How do you tell SQL Server where to create a file instead of letting it create one to the default location.” The SQL Command is called CREATE DATABASE. All I’m looking for is a sample piece of code that will create the database and direct it to the location of your choice (Your Flash drive)

**WEEK 1 DELIVERABLES**

* Send me an email during Class (TODAY)
* Don’t leave class until you successfully get the Week 1 packet from me via email (TODAY)
* Download and Install SQL Server 2008 Express (SUNDAY)
* Attach the sample database to your SQL installation (SUNDAY)
* Run the script to create the WORKPLACE database (SUNDAY)
* Give me an example of how to create a database and have it placed on your flash drive (MONDAY)
* Write scripts to accomplish the homework assignment that I will email you (WEDNESDAY)

**SQL Topics that we will/could/might cover:**

* Installing SQL Server
* Using Management Studio
* Database design – Normalization and other design issues
* Interaction between Excel, Access, and SQL Server
* Foundation Statements of T-SQL such as
  1. **DML (Data Manipulation Language)** Examples: SELECT, INSERT, DELETE, and UPDATE
  2. **DDL (Data Definition Language)**  Examples: CREATE, ALTER, DROP
  3. **DCL (Data Control Language**) Examples: GRANT, REVOKE
  4. **TCL (Transactional Control Language)** Examples: COMMIT, ROLLBACK
* The use of : Data Types, Expressions, Functions (Scalar, Text, Numeric, Date, and Aggregate),

Joins, Unions, Subqueries and XML.

* The creation of: Constraints, Views, Indexes, Cursors, Triggers, Stored Procedures, User Defined Functions
* Working with Transactions and Locks
* Administrator Functions like: Security, Backups, Performance Monitoring

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