WORCESTER POLYTECHNIC INSTITUTE

PRODUCTION PLANNING LAB

MICROSOFT DYNAMICS GP 10.0

NAME:

_____

COURSE: _____

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INTRODUCTION:

In this lab, you will be working with a few modules of the Microsoft Dynamics GP on an organization/company called Fabrikam, Inc. The objectives for this lab are:

1. To learn how to login to the system
2. To understand how data flows from various functions in organizations (from engineering to manufacturing to accounting).
3. To understand some of the built in functionalities in Microsoft Dynamics and also interpretation of specific functions.

Fabrikam, Inc.

During this lab, we will be using data from a fictitious organization called Fabrikam, Inc. The data corresponding to this organization is installed as part of Microsoft Dynamics GP 10.0 installation.

KEY CONCEPTS

- **Enterprise Systems**

  Enterprise Systems help to integrate and optimize different business processes. These provide a single system that is central to the organization and ensure that information can be shared across all functional levels and management hierarchies.

  Typically, these systems include a number of applications or modules, which are built around a common database. They may include different modules like Manufacturing, Financials, Human Resources, Accounting, etc.

  Some vendors providing such systems are SAP, Oracle (e.g. Oracle Applications Suite), and Microsoft (Microsoft Dynamics GP).

- **Microsoft Dynamics GP**

  Microsoft Dynamics GP is a software package that runs on the top of Microsoft SQL Server/Sharepoint server. It is popular amongst small and medium-sized organizations to plan, manage, and control their operations.

  It is a line of integrated, adaptable business management solutions that automate and streamline financial, customer relationship and supply chain processes.

- **Bill of Materials**

  The Bill of Materials (BOM) is a structured list of all materials or parts needed to produce a particular finished product, assembly, sub-assembly, manufactured part, or purchased part.

  The Bill of Materials Entry window is the main window in Manufacturing Bill of Materials. Use this window to enter information about your bills of materials and their components, such as names, categories and default sites for components, and for finished goods. You can indicate if all the components in the bill of materials should be backflushed—that is, if your accounting

processes should be based on the assumption that the components used on the production floor will exactly match those in your bills of materials. You also can use the Bill of Materials Entry window to review bills of materials and to modify existing bills of materials.

Concepts – MS DYNAMICS

(Certain concepts with respect to Dynamics GP are mentioned below)

Bill of materials types

Various types of bills of materials can be defined as below:

- **Manufacturing Bill of Materials**

A manufacturing bill of materials is used to build a parent part and is the "real" production bill of materials used to calculate material requirements. You can create only one manufacturing bill of materials for each item.

- **Engineering Bill of Materials**

An engineering bill of materials is defined for a product by your engineering department. An engineering bill of materials could include the most recent changes proposed by an engineering department, and might or might not match the manufacturing bill of materials.

Designs in the prototype stage of development, for example, might have engineering bills of materials. This allows you to study the costs of producing a design without affecting the material requirements that the system generates. You can create only one engineering bill of materials for each item.

- **Archived Bill of Materials**

An archived bill of materials is one that has been stored for reference but isn't used in production.

- **Configured Bill of Materials**

A configured bill of materials is created when a customer selects options from a super bill of materials. When the Sales Configurator is used to specify options, a configured bill of materials is created and is assigned a unique identifier. For example, a configured bill of materials for a computer would include the basic components and option items that the customer had specified from a list of options that you provide. The option items might be for RAM, hard disks or processors. You can generate many configured bills of materials for each item, so you must assign a name to each configured bill of materials.

- **Super Bill of Materials**

A super bill of materials includes all of the possible parts in a configured bill of materials for a finished item. For example, a computer manufacturer might have a super bill of materials that lists all the various computer component types for its customers, such as several types of

processors, hard drives, monitors and RAM modules. Then, when the company needs to build a computer, someone will specify which of the component types will be included in the specific computer.
Another example would be, if your company builds office chairs with either plastic or wooden arms, both types of arms would be listed in the super bill of materials, but you would select only one arm type for a specific, configured bill of materials.

Bill of Materials Categories:
Refer to the following definitions for more information about various categories of bills of materials.

- **Regular Bill of Materials**

A regular bill of materials is a basic, single-level bill of materials.

- **Phantom Bill of Materials**

A phantom bill of materials is assigned to a bill of materials for a subassembly that isn't usually stocked as an inventory item. For example, a furniture manufacturer might set up a bill of materials for a table so that the table leaf is a subassembly. The manufacturer doesn't want to build any extra table leaves—he wants to manufacture leaves only as tables are being made, but will never stock the table leaves as separate inventory items. If you create phantom bills of materials, you won't need to create separate manufacturing orders for the production of the subassembly items needed for parent parts.

- **Option Bill of Materials**

This setting is not currently used.

- **Modular Bill of Materials**

This setting is not currently used.

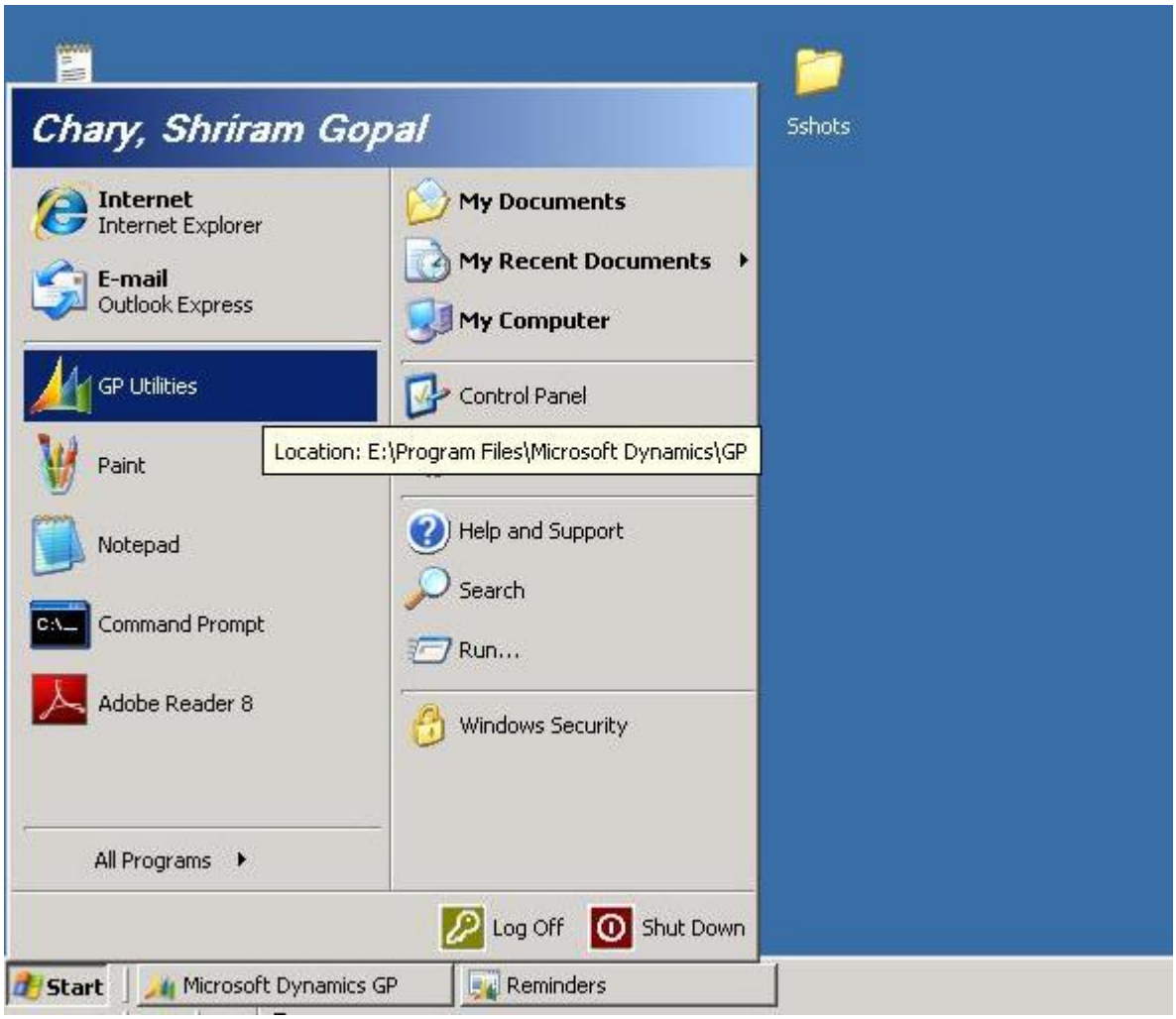
- **Revision Bill of Materials**

When you enter a bill of materials, you can enter a revision level for the bill of materials. Each combination of finished good item, bill of materials type, and (if the bill of materials type is Archived or Configured) bill of materials name can have multiple revision levels.
When you modify any bill of materials, you can specify a new revision level for the modified bill. When you enter a new revision level for the bill of materials, a message appears. You'll have the option to create a new revision level for the bill of materials. At the same time, a copy of the existing bill of materials (with its previous revision level) is stored.
When you select a bill of materials in the Bill of Materials Entry window, the newest revision level of the bill of materials is displayed. You can't edit the old revision levels of the bill of

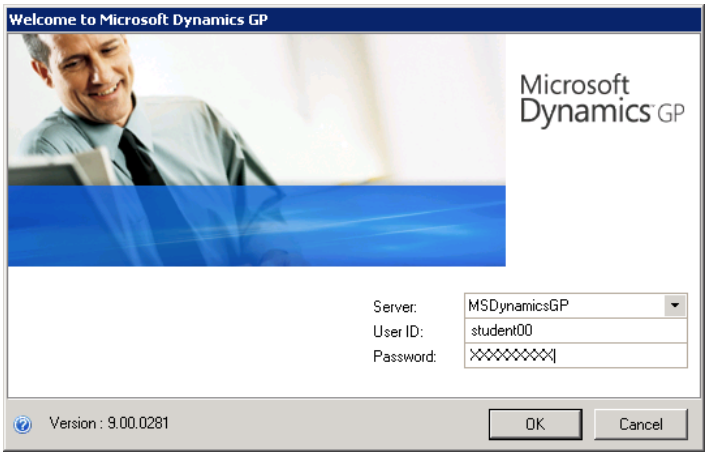
materials, but you can view them with the Bill of Materials View window. Revision level history can't be removed unless you remove the entire bill of materials.

LOGGING INTO MS DYNAMICS

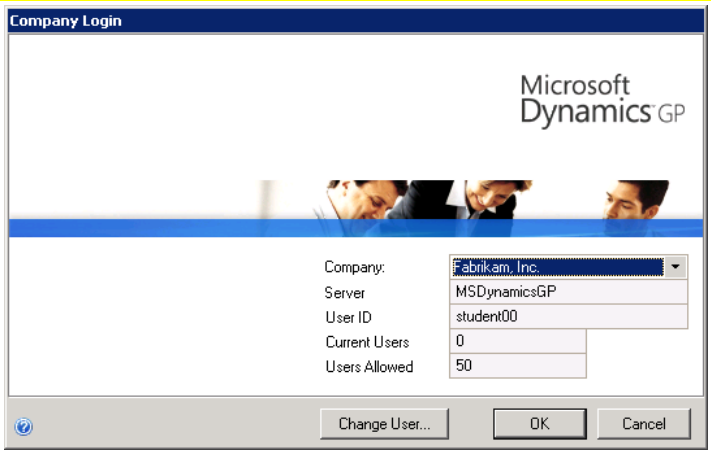
On your machine, select Windows Start -> All Programs -> Microsoft Dynamics -> GP 10.0 (or current version) -> GP.



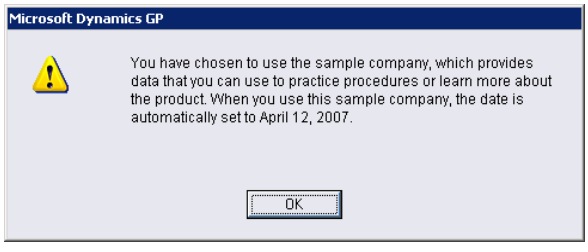
1. The package opens and prompts you for your credentials. Change the User ID to the user id assigned to you, e.g., **student00** and the corresponding password. (Please note that in case you do not see the following screenshot, but a message prompting for Dictionary Location ID, or "You need to run Microsoft Dynamics GP Utilities before you can run Microsoft Dynamics GP. Do you want to launch Microsoft Dynamics GP Utilities now?" you will have to use another machine Inform the instructor about the same).



2. In the window that opens, select the company as Fabrikam, Inc. and press OK.

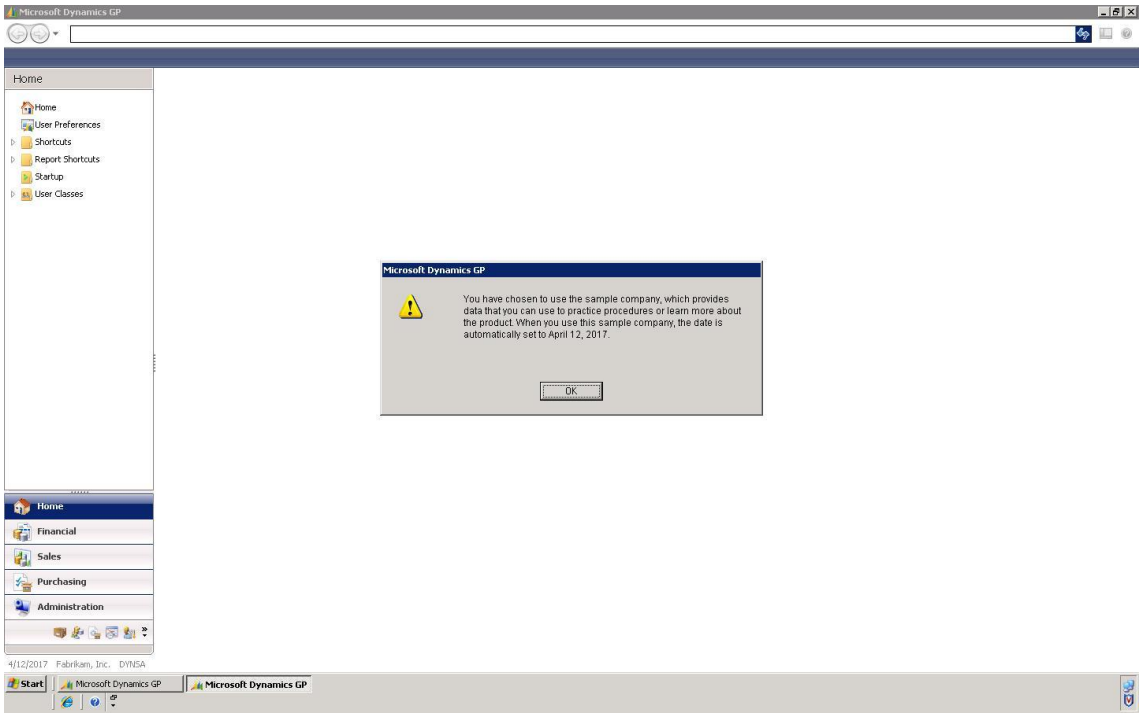


3. Press OK to the message that will be prompted.



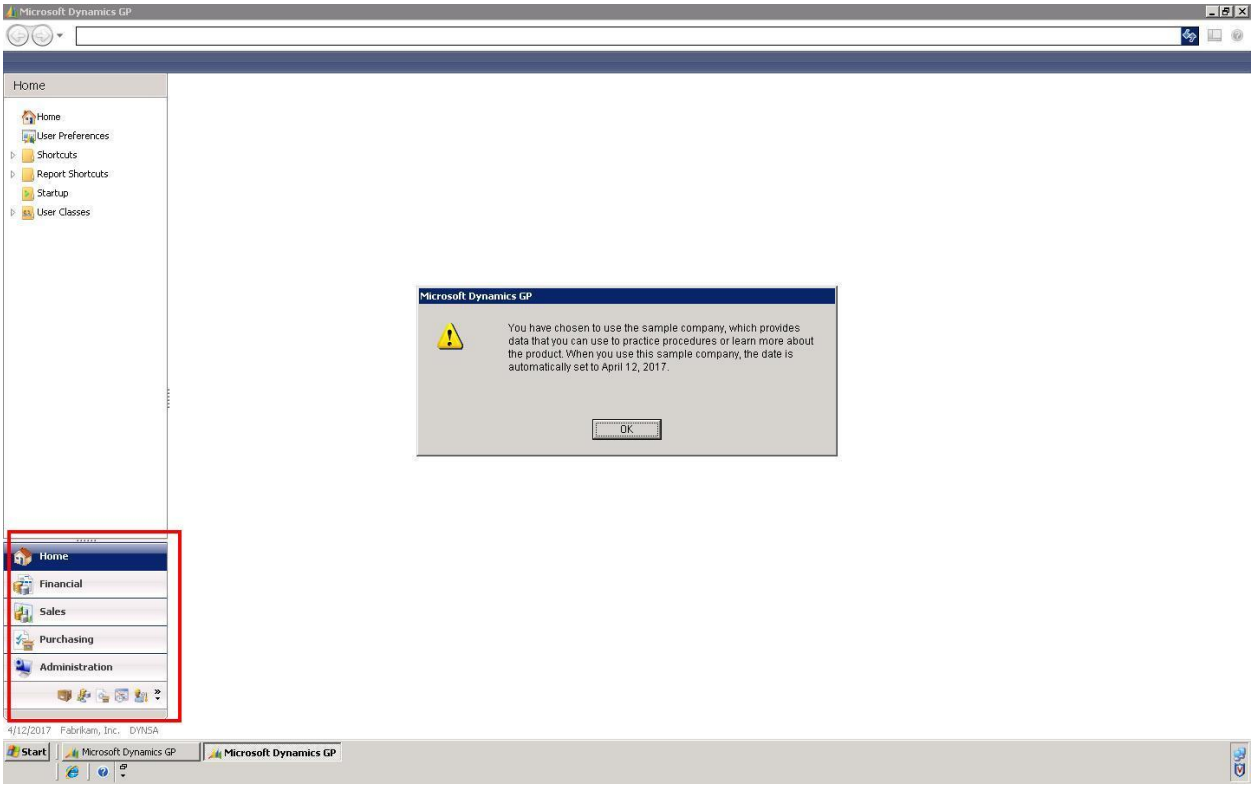
4. Sometimes a Microsoft Office Outlook setup wizard may start. Cancel the operation.

5. The default window looks as below: You may close the homepage and the window in the foreground.



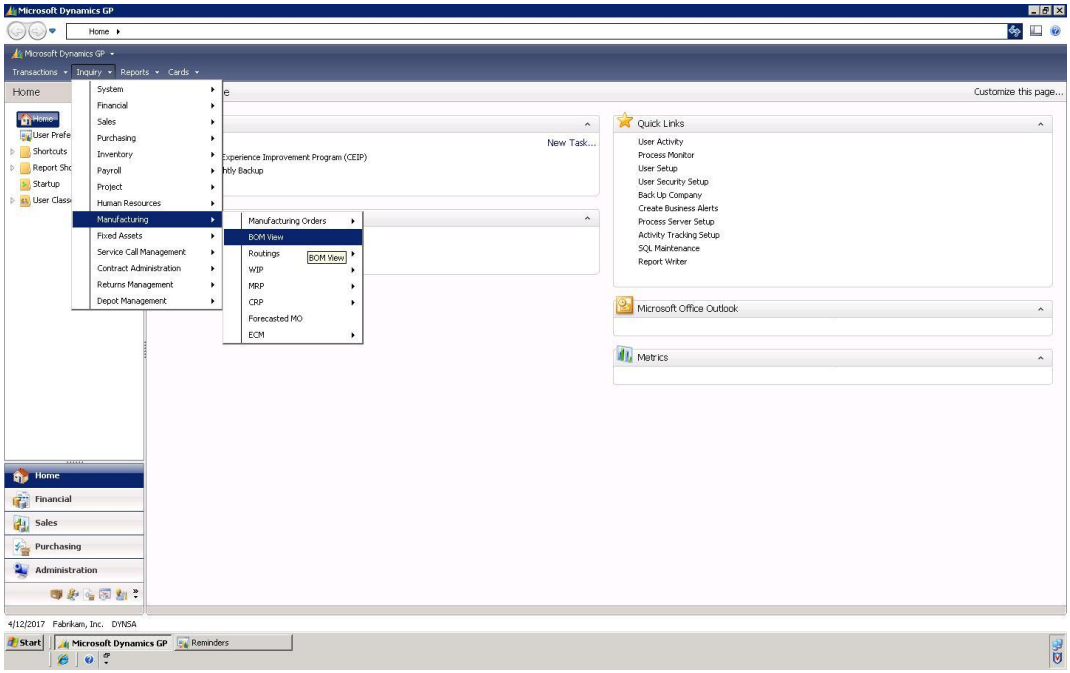
6. Information pertaining to the user logged along with the company selected is displayed at the bottom left.

7. Notice the image buttons on the bottom left of the screen. By default, Financial, Sales, Home, Administration, Inventory, Manufacturing Lists, etc.

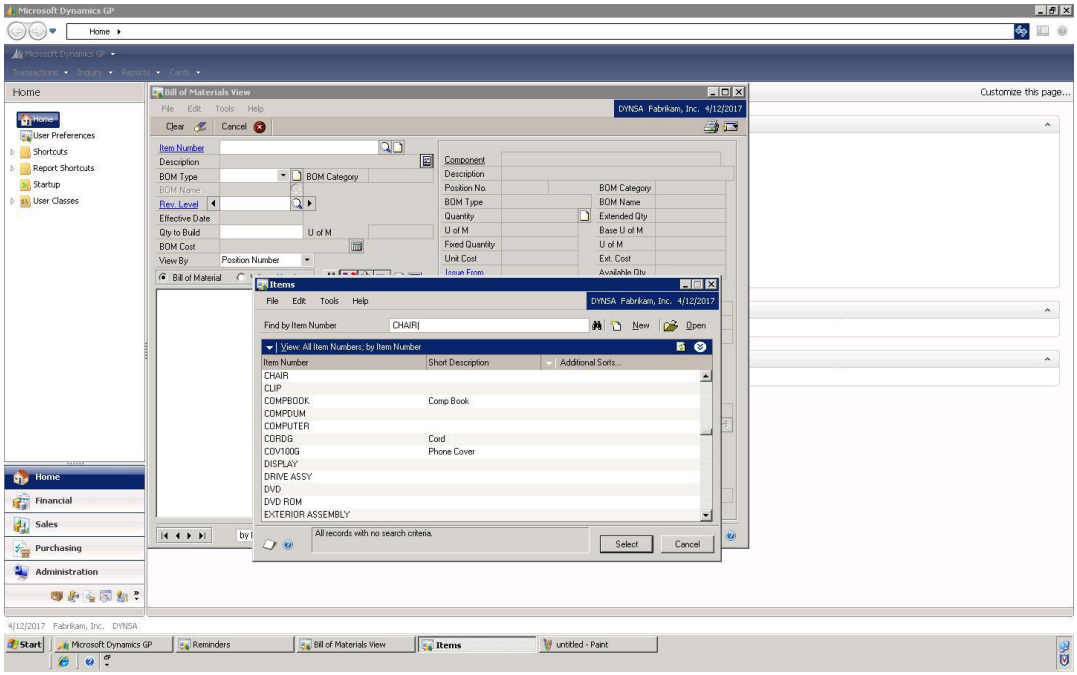


LAB ACTIVITIES

1. Click Inquiry → Manufacturing → BOM View



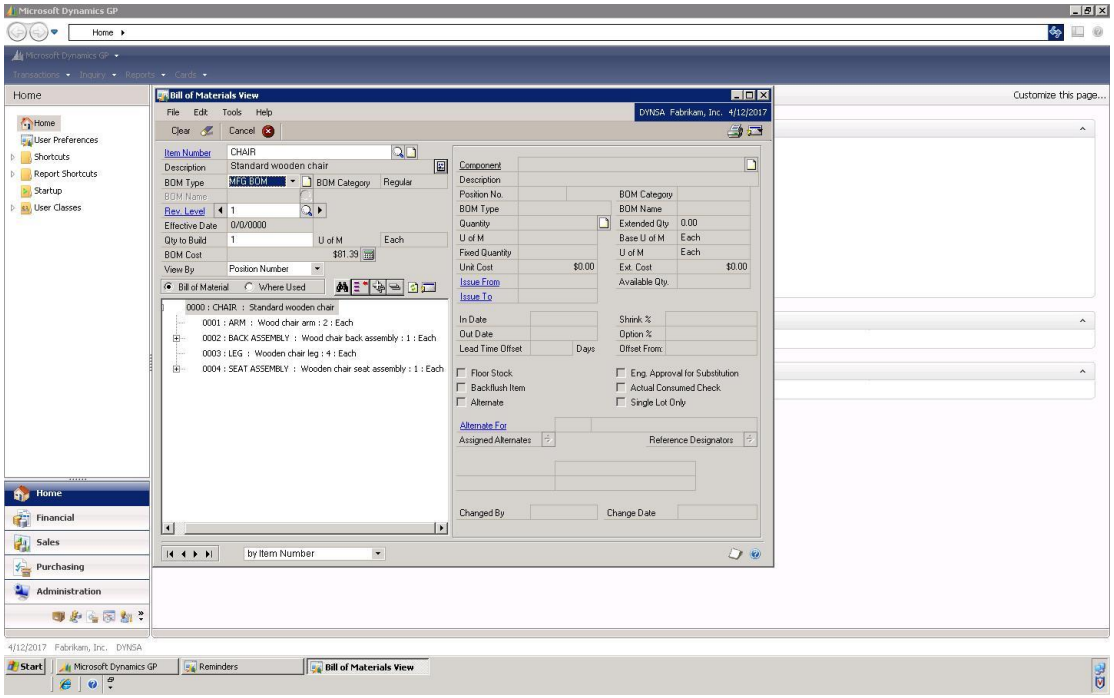
2. The Manufacturing Bills of Materials window will open.



3. In the ***Look For:*** field, type CHAIR and hit the ***Find Now*** button.

4. Select the record with Item Number CHAIR.

5. Double-click and the Bill-of-Materials Entry window will be populated with the information for this record (Please note that if the record is being used by another user, you may receive a dialog box questioning whether you would like to access the record as view-only. Proceed with the view-only option).

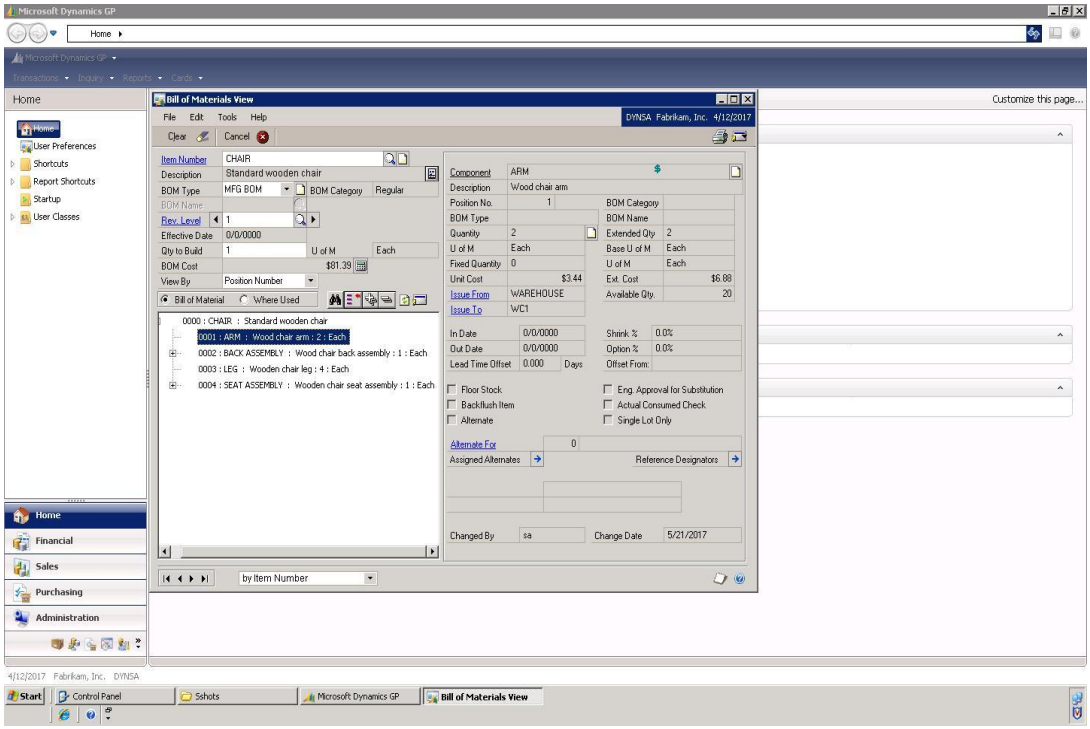


a. Note the default BOM Type for this record: _____.
b. Note the default BOM Category for this record:_____.
c. Note the number of sub-assemblies for 0000: CHAIR: _____.
d. Note the number of components within the back assembly. Also, what are these?

_____

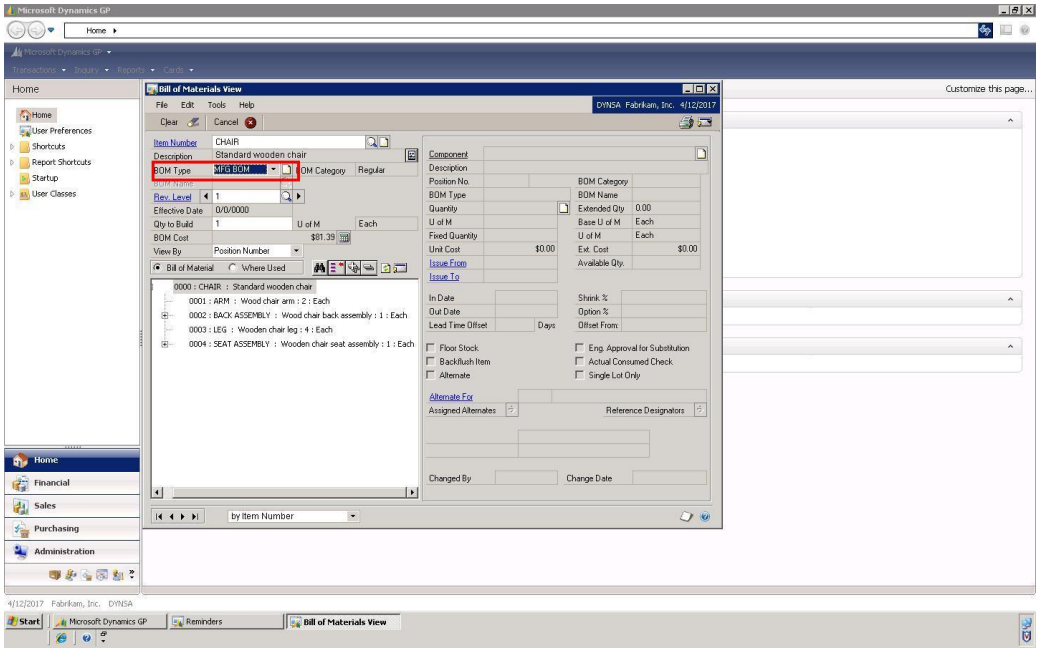
_____

e. Select the sub-assembly 0001: Arm



i. Note the Available Quantity: _____.
ii. Note the Unit Cost: _____.
iii. Note the Unit of Measure: _____.
iv. From which site is this component taken? _____.
v. To which site will the component be delivered when it will be needed in production? _____ _____.

f. Reselect 0000 Chair. Now change the BOM Type to Super BOM.



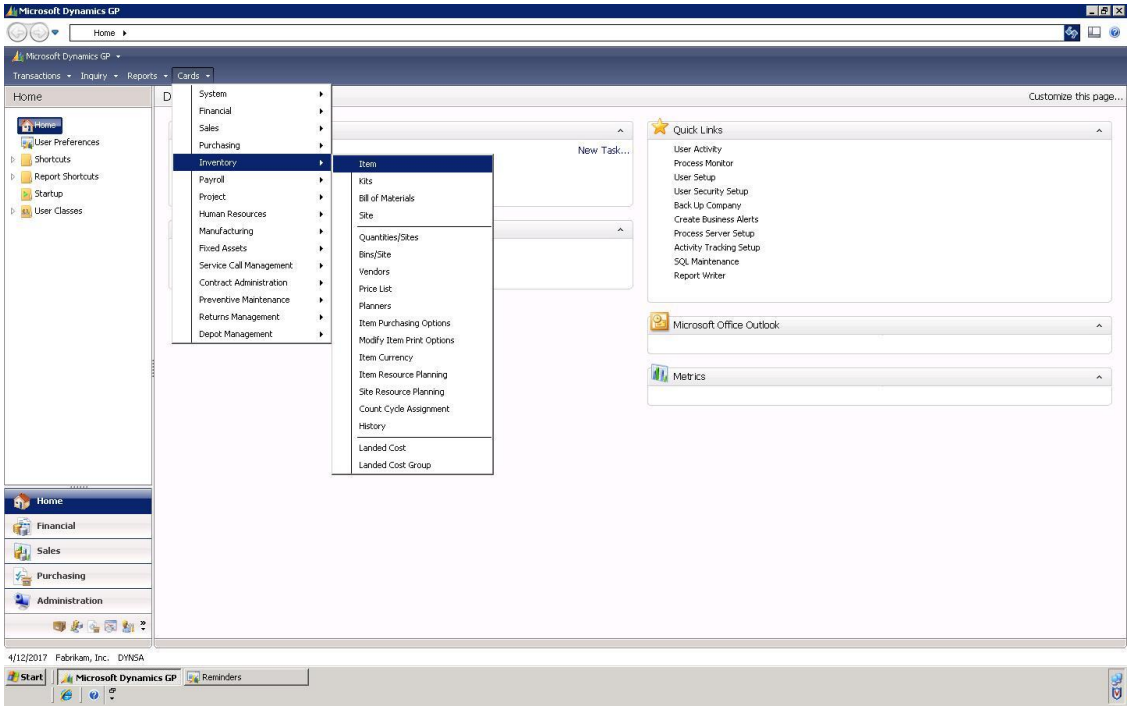
g. Note the tree view now.
Why is this difference in tree structure between a Super BOM and a Mfg BOM? (Hint: Refer to the definition of Super BOM and Mfg BOM)

_____

_____.

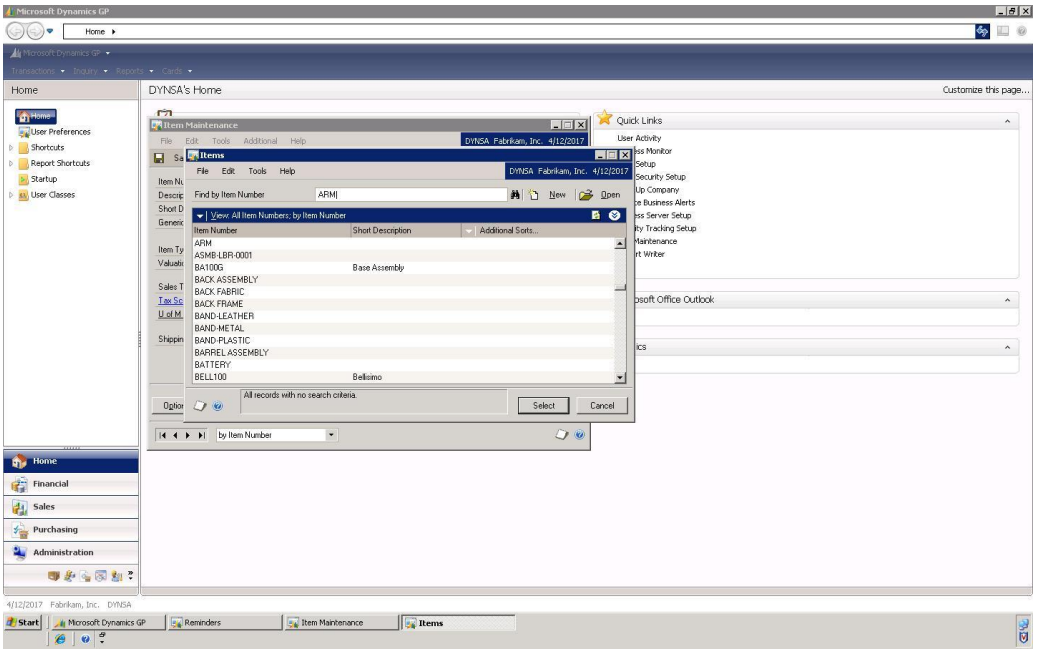
6. Close the window

7. Click Cards → Inventory -> Items

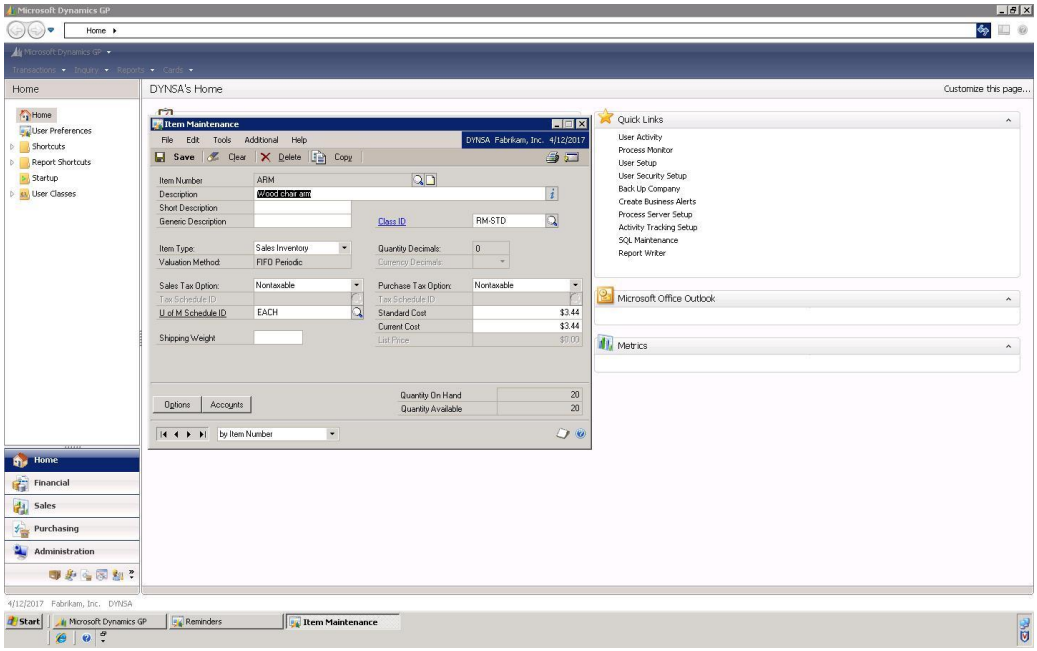


8. The Items window will open.

9. In the ***Look For:*** field, type ARM and hit the ***Find Now*** button.



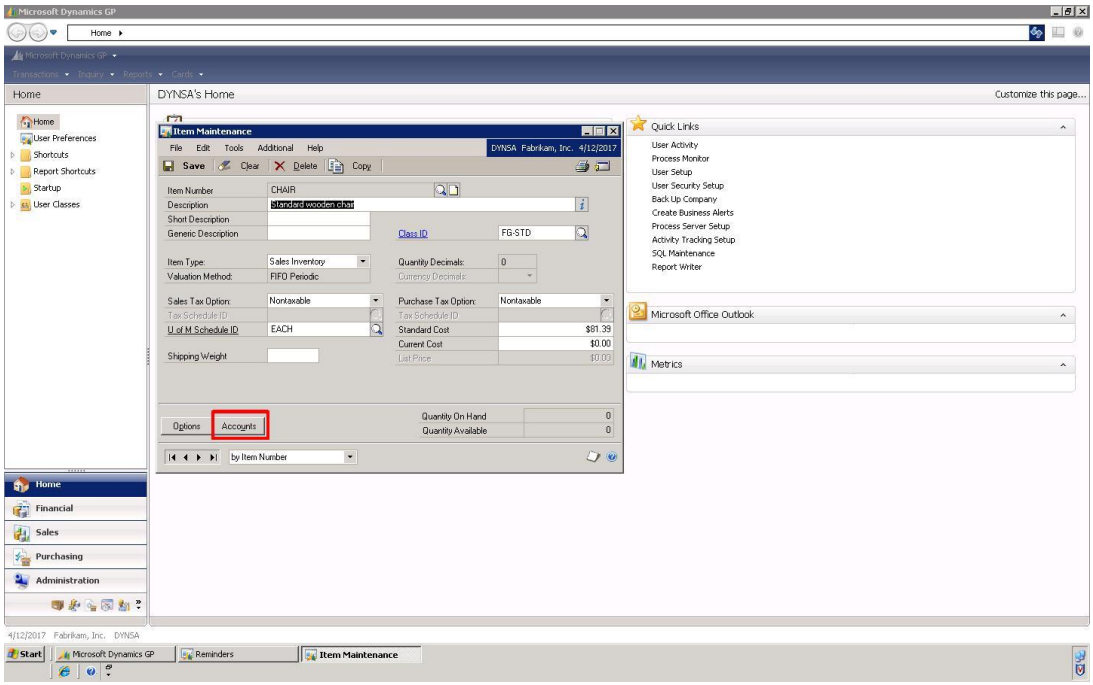
10. Double-click the record.
    An Item Maintenance window will open.

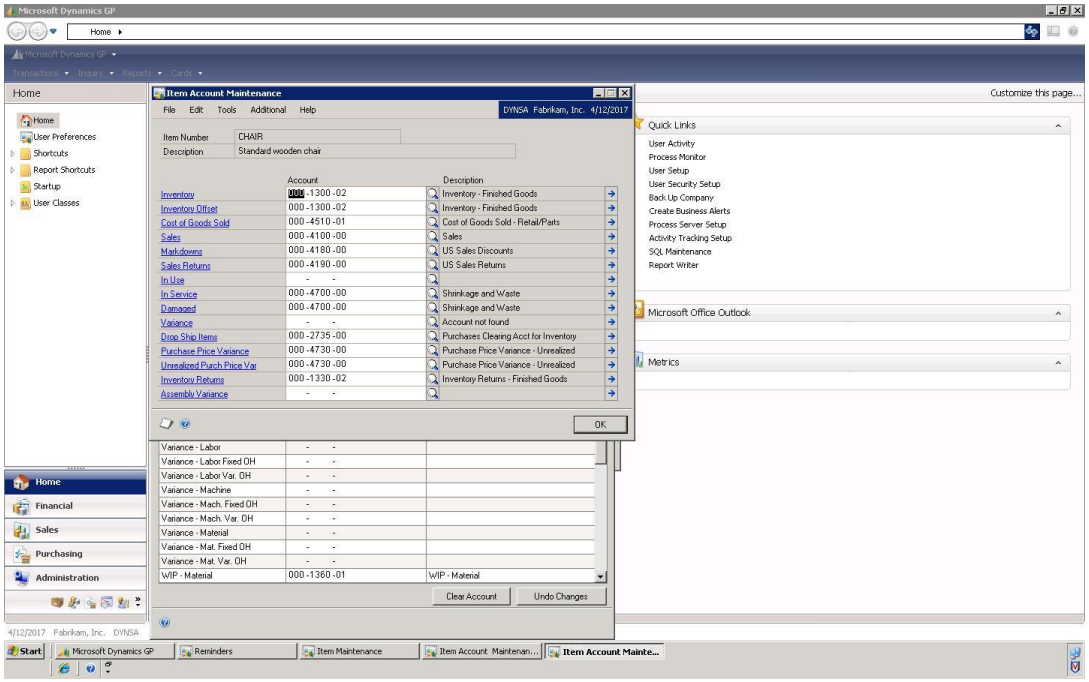


a. Note the Quantity on Hand: _____.
b. Note the U of M Schedule ID: _____.
c. Note the Class ID: _____.
d. What do these items mean? Why is this information needed? _____.
   _____.
   _____
   _____

11. Under the Item Maintenance window click on the **Accounts** button.

The Item Accounts Maintenance window will open:





a. Note the account for the Inventory for this item: _____

b. Note the account for the Inventory Returns for this item: _____

c. Why is this information needed? Why is it linked to accounting? Where does the data go? _____

_____

_____

_____

_____

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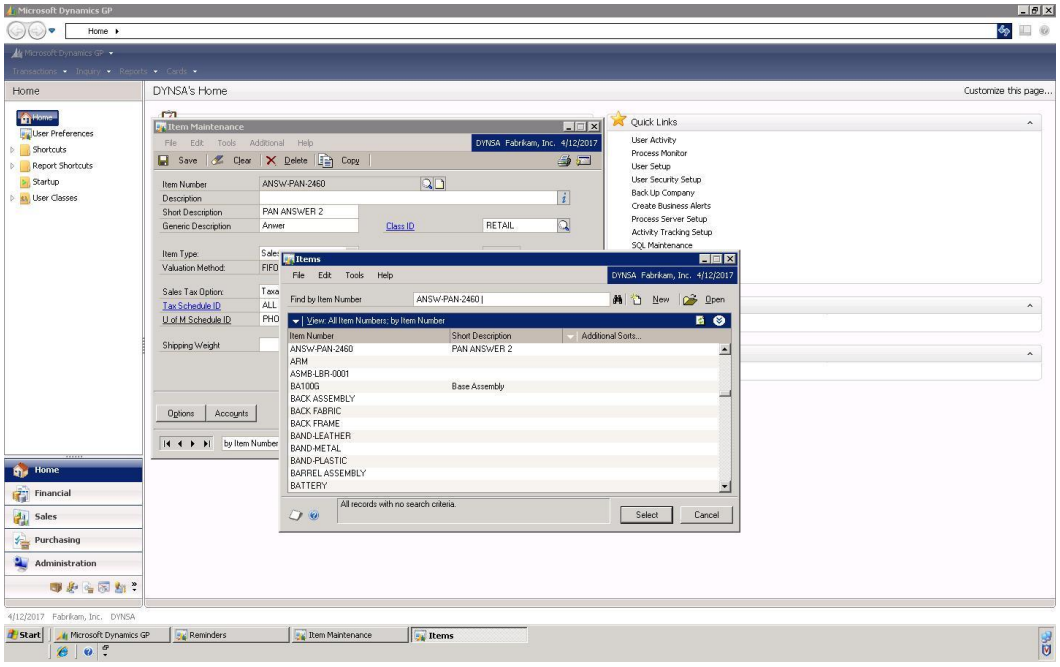
_____

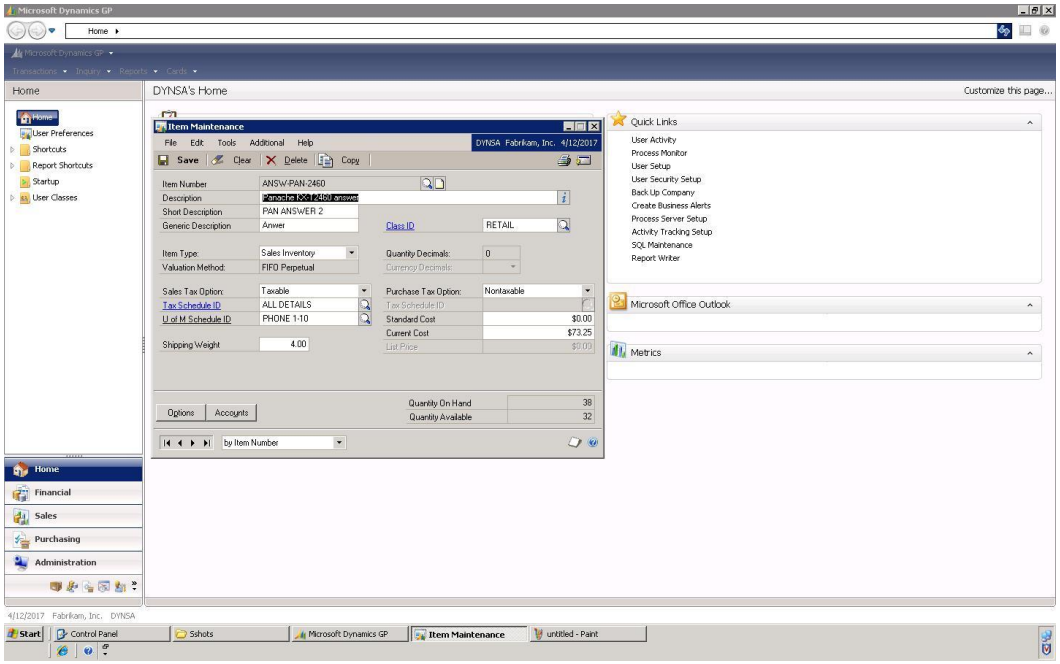
_____

12. Close the Item Account Maintenance window.

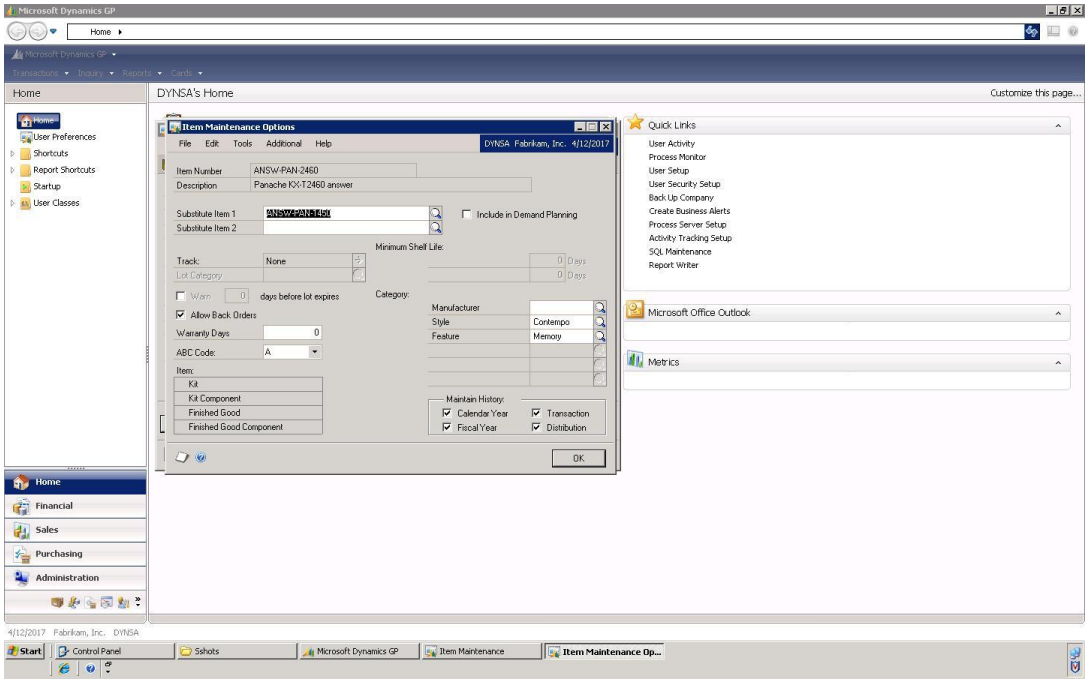
13. In the ***Look For:*** field, type ANSW-PAN-2460.



14. Double-click on the highlighted record. The Item Maintenance window will open.



15. Click on the Options button. The Item Maintenance Options button will open.



a. Note the Substitute Item 1 for the item: _____

b. Note the ABC code for the item: _____

c. What does this classification (i.e., ABC code) for the item mean? _____

_____

_____

_____

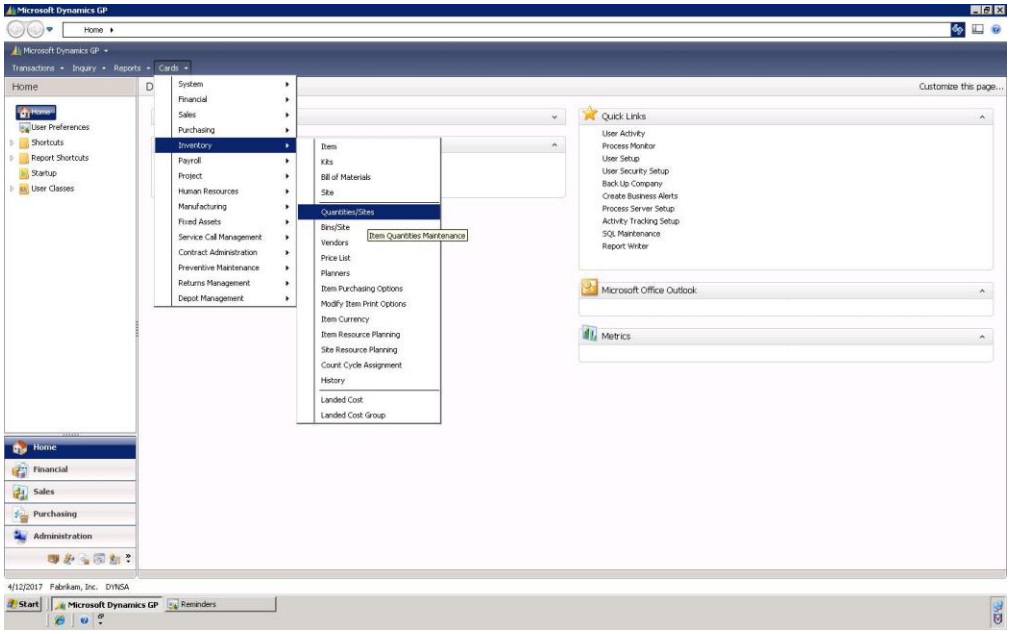
_____

_____

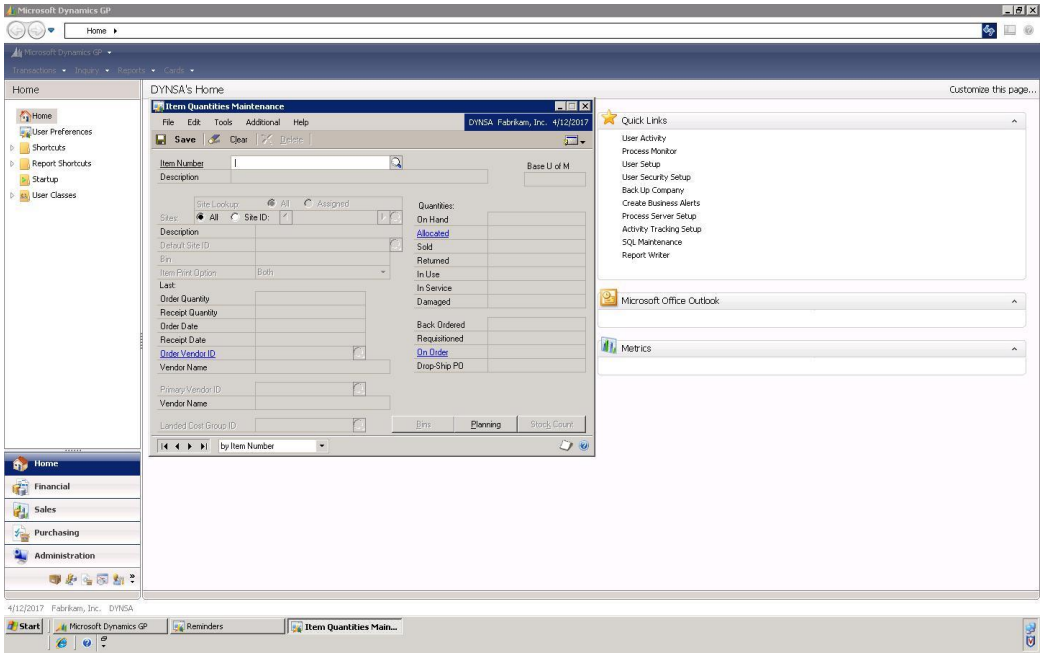
16. Close the Item Maintenance Options' window. Close the Item Maintenance window.

17. Cards → Inventories → Quantities/Site

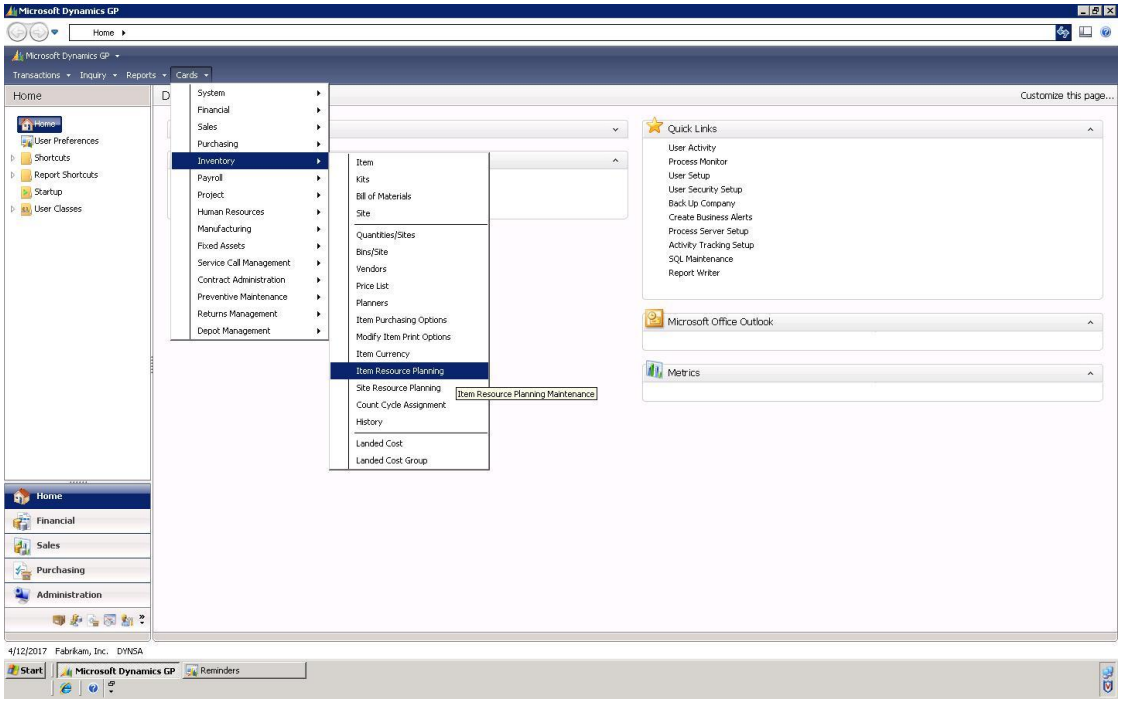
.



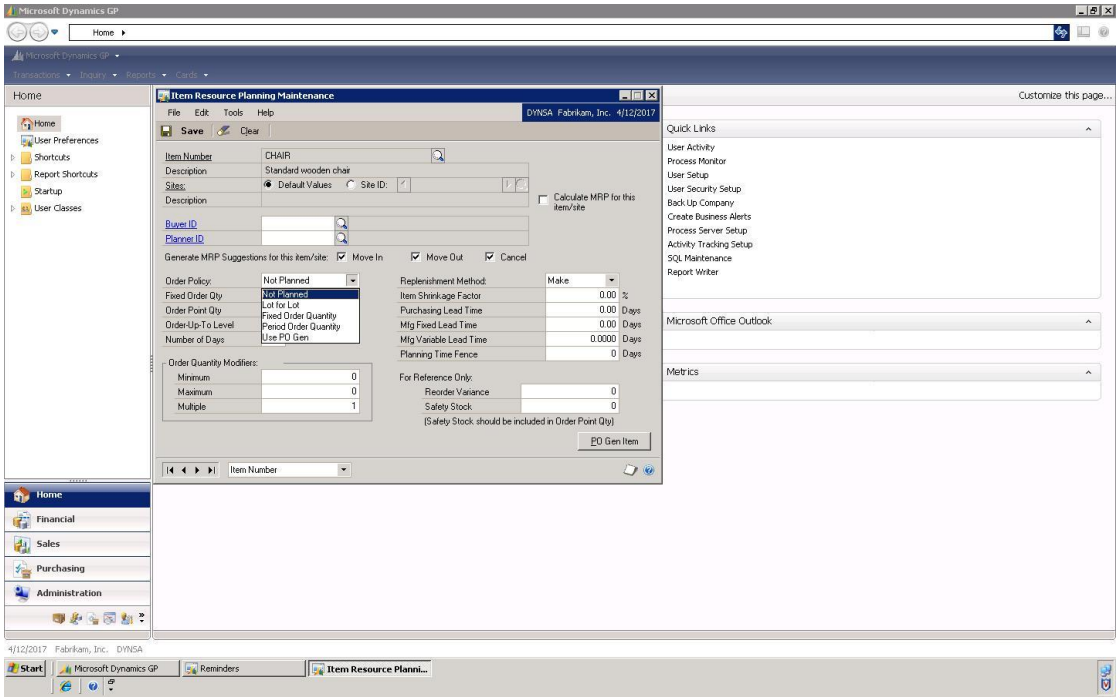
18. The Item Quantities Maintenance window will open.



19. Click on the Planning button. The Item Resource Planning Maintenance window will open.



20. Change the Order Policy dropdown value from Not Planned to Period Order Quantity.



The Number of Days field gets enabled. Why does it get enabled? If you change the number from 1 to say, 3, what would that mean? (Note: Please do not save the new value)

_____

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_____

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_____

----------End of Lab----------