# Accounting Software

**Unit:** Workplace Skills

**Problem Area:** Software

**Lesson:** Accounting Software

## Student Learning Objectives.

Instruction in this lesson should result in students achieving the following objectives:

1. **Review general accounting software and its related terminology.**
2. **Explain dimensional accounting software.**

## Resources.

The following resources may be useful in teaching this lesson:


E-unit(s) corresponding to this lesson plan. CAERT, Inc. http://www.mycaert.com.

"Chart of Accounts," *WhatIs.com.* Accessed Apr. 16, 2018. https://whatis.techtarget.com/search/query?q=chart+of+accounts.

Fairbanks, Lori. "Best Small Business Accounting Software 2018," *Business News Daily.* Accessed Apr. 16, 2018. http://www.businessnewsdaily.com/7543-best-accounting-software.html.

Fairbanks, Lori. "Choosing the Right Small Business Accounting Software," *Business News Daily.* Accessed Apr. 16, 2018. http://www.businessnewsdaily.com/7542-choosing-accounting-software.html.

Tyndall, Glenn. "How to Choose Accounting Software?," *The Balance.* Accessed Apr. 16, 2018. https://www.thebalance.com/choosing-accounting-software-14101.

Walton, Andy. "The Importance of Accounting Software," *The Houston Chronicle*. Accessed Apr. 16, 2018. http://smallbusiness.chron.com/importance-accounting-software-71524.html.

Yakal, Kathy. "The Best Small Business Accounting Software of 2018," *PCMag.com*. Accessed Apr. 16, 2018. http://www.pcmag.com/article2/0,2817,2458748,00.asp.

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## Equipment, Tools, Supplies, and Facilities

- ✓ Overhead or PowerPoint projector
- ✓ Visual(s) from accompanying master(s)
- ✓ Copies of sample test, lab sheet(s), and/or other items designed for duplication
- ✓ Materials listed on duplicated items
- ✓ Computers with printers and Internet access
- ✓ Classroom resource and reference materials

## Key Terms.

The following terms are presented in this lesson (shown in bold italics):

- accounting software
- algorithm
- chart of accounts (COA)
- customer relationship management (CRM)
- customization
- dimension
- dimensional accounting software
- double-entry accounting
- enterprise resource planning (ERP)
- expandability
- generally accepted accounting principles (GAAP)
- one-dimensional accounting software
- online ordering and delivery software
- point-of-sale (POS) system
- reservation software
- scalability
- security
- specialty accounting software
- supply chain
- supply chain management software (SCMS)

## Interest Approach.

Use an interest approach that will prepare the students for the lesson. Teachers often develop approaches for their unique class and student situations. A possible approach is included here.

> *Today, nearly all tasks that were once done by hand now use some form of technology. Accounting is no exception. Accountants use business software for small or large (personal or business) financial recordkeeping and task reporting. Everyone has probably experienced some form of accounting software while using an online banking app for a personal checking account. Just like manual accounting systems, accounting software uses account charts, journal entries,*



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*and other money management procedures. The process is the same; however, it takes fewer steps, requires less figuring, and comes in a different format.*

# CONTENT SUMMARY AND TEACHING STRATEGIES

**Objective 1:** Review general accounting software and its related terminology.

**Anticipated Problem:** What is accounting software? What are the components of general accounting software? How is accounting software customized for specific industry sectors?

I. ***Accounting software*** is an application used to record, processes, and maintain financial transactions. It can usually manage accounts and perform multiple accounting operations. The advantages of a computerized system over a manual system include increased accuracy, processing speed, automatic calculations, lower costs, timely reports, and linking transactions to tax reporting.

A. PRINCIPLES: Accounting software should follow generally accepted accounting principles, specifically double-entry accounting. The ***generally accepted accounting principles (GAAP)*** are a common set of standards and procedures used by companies to create financial statements. A certified public accountant (CPA) uses GAAP for financial reporting. ***Double-entry accounting*** is the recording of each transaction in a minimum of two accounts. (There are at least one debit and one credit per transaction.) Account entries have a left side (debit side) and a right side (credit side). For each transaction, two accounts are impacted. [For example, a loan of $5000 would be entered in a cash-on-hand ledger and an asset liability ledger (a debit in one and a credit in the other).]

B. FEATURES: Accounting software features range from reporting to security.

1. *Reporting and COA:* General reporting and analysis functions help companies comply with compulsory government and industry reporting requirements. According to WhatIs.com, a ***chart of accounts (COA)*** is a "financial organizational tool that provides a complete listing of every account in an accounting system." The website also states, "An important purpose of a COA is to segregate expenditures, revenue, assets and liabilities so that viewers can quickly get a sense of a company's financial health. A well-designed COA not only meets the information needs of management, it also helps a business to comply with financial reporting standards." (Source: WhatIs.com.)
2. *Graphics:* The software should also provide graphics that present charts and graphs to illustrate company financial data.
3. *Customization:* ***Customization*** is the ability of the software to be adjusted to fit company-specific needs.



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4. *Scalability:* As a business grows, ***scalability*** is the capacity of the software package to accommodate large numbers of users and an increasing amount of data.
5. *Expandability:* ***Expandability*** is the capacity of the software package to allow additional modules to be added as business needs change. For example, a business may not initially need a module to bill customers. As the business expands, accounts receivable billing may be a needed add-on. Typical accounting software modules (elements) include:
    a. General ledger
    b. Accounts payable
    c. Accounts receivable
    d. Payroll
    e. Sales
    f. Purchases
    g. Budgets
    h. Inventory
    i. Fixed asset management
6. *Security:* ***Security*** is the defense of a business's financial data against loss, robbery, or tampering.

C. SPECIALTY SOFTWARE: ***Specialty accounting software*** is designed to meet industry-specific needs: hospitality (hotels, restaurants, or resorts), financial (banking, stocks, or insurance), healthcare, manufacturing, retail, or government operations. Many examples of specialty accounting software technology can be found today.

1. A ***point-of-sale (POS) system*** is a computerized cash register system that accepts credit and debit payments from customers. Newer POS systems also track inventory; text or email receipts; complete transactions on a mobile phone; and analyze customer and sales data. Many restaurants now provide pay-at-the-table kiosks for customers.
2. ***Reservation software*** is a program used to schedule an appointment, control the flow of customers, and manage a business's available space. Some reservation systems allow customers to make bookings online, while others use in-house reservation software. This software goes hand-in-hand with accounting to help management determine:
    a. The maximum customer capacity of the facility
    b. The correct number of employees to schedule for each working shift
3. ***Online ordering and delivery software*** is a system that organizes customer orders for pickup and delivery from a brick-and-mortar store or a distribution center. Many restaurants now use mobile apps to accomplish this task. Specialized software is also available for monitoring and replenishing inventory online. This software also tracks expenses for inventory purchases.
4. A ***supply chain*** is a network of steps involved in moving a product or service from the supplier to the customer (from production to distribution). ***Supply***



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***chain management software (SCMS)*** is a shared program between businesses and suppliers that manages transactions, supplies, and related business processes. This software is used to fill customer orders, purchase inventory, and monitor warehouse stock. A requirement of many SCMS packages is a forecasting tool. The function of forecasting is to balance supply and demand disparities (differences or gaps). Forecasting tools use algorithms to predict future needs within the supply chain. An ***algorithm*** is a sequence of mathematical steps used to calculate or problem-solve a specific occurrence.

D. PERSONAL USE: Accounting software is also available for personal use to track income and expenses, pay bills, and monitor debt and cash flow. Generally, simple, personal accounting software packages do not offer the expandability options available to businesses. Personal accounting software is often linked to online banking. This allows direct access to bank accounts and the use of online bill payment.

**Teaching Strategy:** *Use VM–A to generate a discussion about automated accounting. Use VM–B to review POS-related specialty accounting software.*

## Objective 2: Explain dimensional accounting software.

**Anticipated Problem:** What is a COA? What is a dimension? Which organizations use one-dimensional accounting software? What is dimensional accounting software? Which organizations use dimensional accounting software?

II. Organizations with multiple locations, clients, or product lines use a multidimensional COA to track their accounting transactions. ***Dimensional accounting software*** is an application that uses tagged transactional information as well as operational data with dimensional values.

A. DIMENSIONS: In dimensional accounting software, a ***dimension*** is an attribute that can be attached to transactions to capture information, such as departments, locations, customer names, cost centers, or other tracking needs. Dimensions allow accountants to categorize and analyze financial information to make better business decisions. As accountants create reports, drop-down lists may be used to filter, group, and organize data by dimensions. A standard income statement may be transformed into a report of profitability by a project or revenue by a geographic location. As a business changes, dimensions may be added to easily track data important to that business.

1. A restaurant with many locations might want to track revenue and expenses beyond the basic account level.
2. The accountants of the restaurant want to identify each transaction by location, so they can report and analyze financial information by locality.
3. This information provides management with data about location profitability, margins, fixed assets, and more.



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B. CODING: Multidimensional software operates with the use of multiple account codes. According to the Sage Intacct website, "Most financial solutions use a hard-coded structure for the COA. For example, to track three locations, five departments, and five projects, the accountant would need 75 account code combinations—and you'd end up with a complicated, unmanageable set of codes." (More can be read at https://www.sageintacct.com/multidimensional-financial-reporting-system.)

1. As another example, a firm has a client (Jones Group) that has asked them to throw an anniversary party. The party will be handled by the firm's event services department in the Cooperstown, New York location. The client's account will be billed for the party.
   a. Assuming the basic revenue code for client revenue is "400," a location code extension of "250" would indicate the code for a specific client (Jones Group). The base code for the Jones Group is "400-250."
   b. Then, a department specification is needed, so another code could be added, such as "100," for the Cooperstown event services department. This creates the code "400-250-100."
   c. The accountant would then needed to specify the project within that client account, so another extension would be added that creates the final code for this one event as "400-250-100-50" (with "50" indicating the Jones Group anniversary party).
2. In short, when accountants must enter individual records, the coding process can become very cumbersome and may require that hundreds of extra accounts be created. Multidimensional software can aid in the creation and maintenance of account codes.

C. TYPES AND PROVIDERS: There are many types of dimensional software and several companies that provide dimensional software packages.

1. ***One-dimensional accounting software*** is a traditional package that does not offer multiple dimensions. This package may be the best choice for individuals and businesses that require only basic financial reports or budgets. QuickBooks, by Intuit, is a popular one-dimensional accounting system.
2. ***Customer relationship management (CRM)*** is multidimensional software that helps businesses manage customer data, sales, and support. It is a category of software that covers a broad set of applications designed to manage a business-customer relationship. CRM software systems are also used to manage contacts, employees, and the company's web presence. Companies like Salesforce offer a mainly cloud-based CRM, while others, like Microsoft, offer an on-premises or cloud version.
3. ***Enterprise resource planning (ERP)*** is dimensional software that manages and integrates the important parts of a business (often a manufacturing business): product planning, development, manufacturing, sales, and marketing. It integrates many functions related to technology, services, and human resources. It is scalable, and its functionality includes security, workflow, reporting, and a multi-module system. Some companies, like Oracle NetSuite,



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only offer cloud-based ERP software, while other companies, such as Infor, offer both options (or a hybrid of the two).

4. The larger the company and its operations the more likely is its need for dimensional accounting software assistance. Several dimensional accounting software packages are available at a variety of price points. Individuals and smaller businesses may not require the power and flexibility of multidimensional accounting software—the cost may outweigh the benefits. Some popular dimensional accounting software packages include:
   a. Sage Intacct
   b. Quickbooks Enterprise
   c. Oracle NetSuite
   e. Zoho
   f. Microsoft Dynamics 365

**Teaching Strategy:** *Use VM–C to lead a discussion about the structure of a COA. Use VM–D to illustrate CRM and ERP dimensional software features. Assign LS–A to the students. They will research and write a one-page summary. It should compare and contrast two different dimensional accounting software packages for hotel management.*

## Review/Summary.

Use the student learning objectives to summarize the lesson. Have students explain the content associated with each objective. Student responses can be used in determining which objectives need to be reviewed or taught from a different angle. If a textbook is being used, questions at the ends of chapters may also be included in the Review/Summary.

## Application.

Use the included visual master(s) and lab sheet(s) to apply the information presented in the lesson.

## Evaluation.

Evaluation should focus on student achievement of the objectives for the lesson. Various techniques can be used, such as student performance on the application activities. A sample written test is provided.

## Answers to Sample Test:

### Part One: Matching

1. e
2. d
3. a
4. b
5. f
6. c



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## Part Two: Completion

1. customization
2. dimension
3. security
4. point-of-sale (POS) system
5. expandability
6. algorithm

## Part Three: Short Answer

Answers will vary, but should include some or all of the information below.

1. THREE OF THE FOLLOWING: Increased accuracy, speed in processing calculations, lower cost, timely reports, and linking transactions to tax reporting.

2a. DESCRIPTION: Dimensional accounting software is an electronic application that "tags" transactions as well as operational data with dimensional values. In accounting software, a dimension is an attribute that can be attached to transactions to capture information, such as departments, locations, customers, cost centers, or other tracking needs. Dimensions allow accountants to categorize and analyze financial information and make better business decisions.

2b. ONE EXAMPLE (from the following):

   a. As accountants create reports, drop-down lists may be used to filter, group, and organize data by dimensions.
   b. A standard income statement may be transformed into a report that presents "profitability by project" or "revenue by geographic location."
   c. As a business changes, dimensions may be added to easily track data important to the business. CRM and ERP software packages can assist customer-based and industrial-based companies.
   d. A restaurant with many locations might want to track revenue and expenses beyond the basic account level. The accountants of the restaurant want to identify each transaction by location, so they can report and analyze financial information by locality.



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**Sample Test**

Name _____

# Accounting Software

## Part One: Matching

***Instructions:*** **Match the term with the correct definition.**

a. accounting software
b. CRM
c. supply chain
d. ERP
e. scalability
f. dimensional accounting software

_____1. The capacity of the software package to accommodate large numbers of users and an increasing amount of data

_____2. Multidimensional software that manages and integrates the important parts of a business (often a manufacturing business): product planning, development, manufacturing, sales, and marketing

_____3. An application used to record, processes, and maintain financial transactions

_____4. Multiimensional software that helps businesses manage customer data, sales, and support

_____5. A network of steps involved in moving a product or service from the supplier to the customer—from production to distribution

_____6. An application that uses tagged transactional information as well as operational data with dimensional values

## Part Two: Completion

***Instructions:*** **Provide the word or words to complete the following statements.**

1. The ability of the software to be adjusted to fit company-specific needs is _____.

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2. An attribute that can be attached to transactions to capture information, such as departments, locations, customers, cost centers, or other tracking needs is a/an _____.

3. The defense of a business's financial data against loss, robbery, or tampering is _____.

4. A computerized cash register system that accepts credit and debit payments from customers is a/an _____.

5. The capacity of the software package to allow additional modules to be added as business needs change is called _____.

6. A sequence of mathematical steps used to calculate or problem-solve a specific occurrence is a/an _____.

## Part Three: Short Answer

***Instructions:*** **Answer the following.**

1. What are three advantages of using accounting software over manual accounting?

2a. Describe the advantage of using dimensional accounting software.

2b. Give one example of how accountants use dimensional software.



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# ACCOUNTING SOFTWARE

Created to be similar to a pen and paper system, **accounting software** is an application used to record, processes, and maintain financial transactions. It can usually manage accounts and perform multiple accounting operations. What are the benefits of automated accounting? Typical accounting software modules (elements) include:

- General ledger
- Accounts payable
- Accounts receivable
- Payroll
- Sales
- Purchases
- Budgets
- Inventory
- Fixed asset management

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# POS SOFTWARE PACKAGES

The hospitality and retail industries use POS systems. A **point-of-sale (POS) system** is a computerized cash register system that accepts credit and debit payments from customers. Newer POS systems also track inventory; text or email receipts; complete transactions on mobile phones; and analyze customer and sales data. Many restaurants now provide pay-at-the-table kiosks for customers. **Online ordering and delivery software** is a system that organizes customer orders for pickup and delivery from a brick-and-mortar store or a distribution center. Many restaurants now use mobile apps to accomplish this task.



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# CHART OF ACCOUNTS (COA)

A **chart of accounts (COA)** is a "financial organizational tool that provides a complete listing of every account in an accounting system." (Source: WhatIs.com.) Organizations with multiple locations or product lines use a multidimensional COA to track their accounting transactions from more than one perspective or identifier. For example, an organization with many subcategories and partner companies may want a breakdown of assets for each area. (This also helps with federal reporting guidelines) Download and view the "AAHA/VMG Companion Animal Chart of Accounts" Excel spreadsheet at https://www.aaha.org/professional/resources/chart_of_accounts.aspx. You will see details of the multiple asset accounts of the American Animal Hospital Association (AAHA).

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# DIMENSIONAL ACCOUNTING SOFTWARE: CRM AND ERP

**Customer relationship management (CRM)** is dimensional software that helps businesses manage customer data, sales, and support. CRM software systems are also used to manage contacts, employees, and the company's web presence. **Enterprise resource planning (ERP)** is dimensional software that manages and integrates the important parts of a business (often a manufacturing business): product planning, development, manufacturing, sales, and marketing. It integrates many functions related to technology, services, and human resources.

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LS–A

Name _____

# Dimensional Accounting Software: Compare and Contrast

## Purpose

The purpose of this activity is to research and detail the dimensions of popular dimensional accounting software packages for hotel management.

## Objectives

1. Research and select two industry-specific dimensional software programs for hotel management.
2. Write a summary comparing and contrasting the programs, and present it to your class.

## Materials

- lab sheet
- pen or pencil
- device with Internet access
- device with a word-processing program

## Procedure

1. Research popular dimensional software packages for hotel management. Read the reviews of each software package. Begin your research with the following three websites. (Add a minimum of two additional websites of your choice.)
   a. G2 Crowd: https://www.g2crowd.com/categories/hotel-management
   b. Finances Online.com: https://financesonline.com/?search_submit=&ns=hotel+management+software
   c. Software Advice: http://www.softwareadvice.com/accounting/

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d. Your Choice (add URL):

e. Your Choice (add URL):

f. Your Choice (add URL):

2. Select two of the hotel software packages to compare. Then, begin your research online with any available tutorials for the software.

   a. Choice #1:

   b. Choice #2:

3. Compare and contrast the two software packages you researched. Is it scalable or expandable? Is the software cloud-based or on-premises? What are the costs? Complete the table below to compare the two packages.

| Software Name | Package Similarities | Package Differences |
|---|---|---|
| | | |
| | | |

4. Write a one-page summary of your findings. It should include:

   a. Your reasons for choosing the two software packages.
   b. A brief highlight of software reviews about each package.
   c. The dimensions tracked in each software package.
   d. The compare and contrast chart you created.

5. Present your findings to the class and your instructor.

6. Turn in or email your completed lab sheet and one-page summary to your instructor.



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