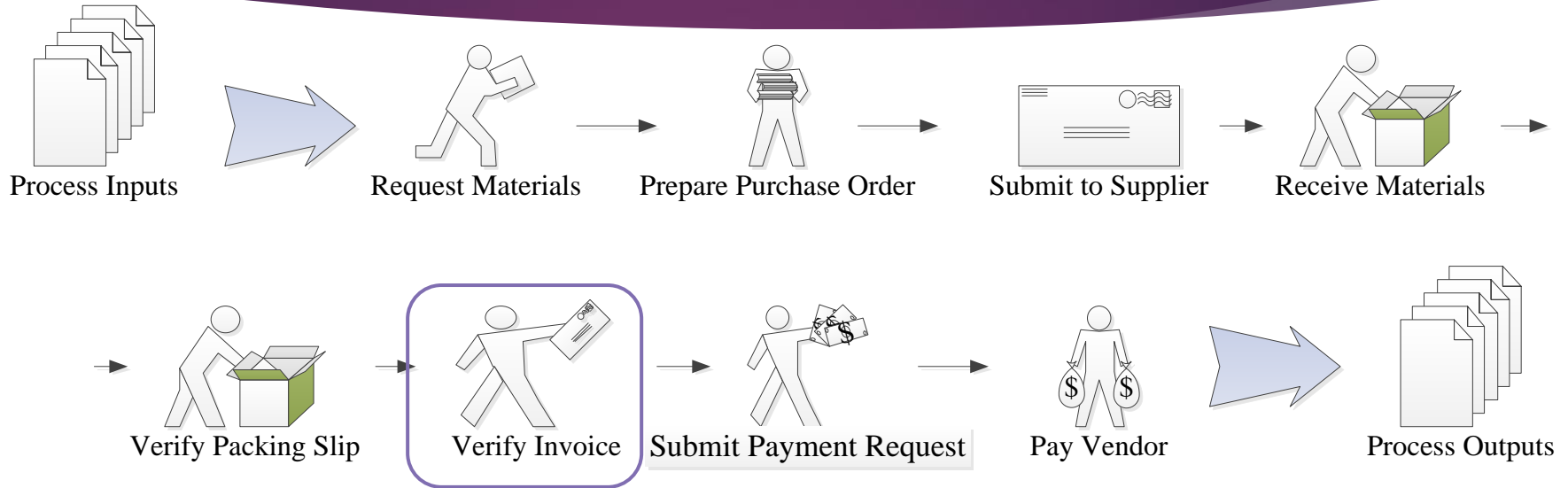


Chapter 11

▶ Business Processes

What is a Process?

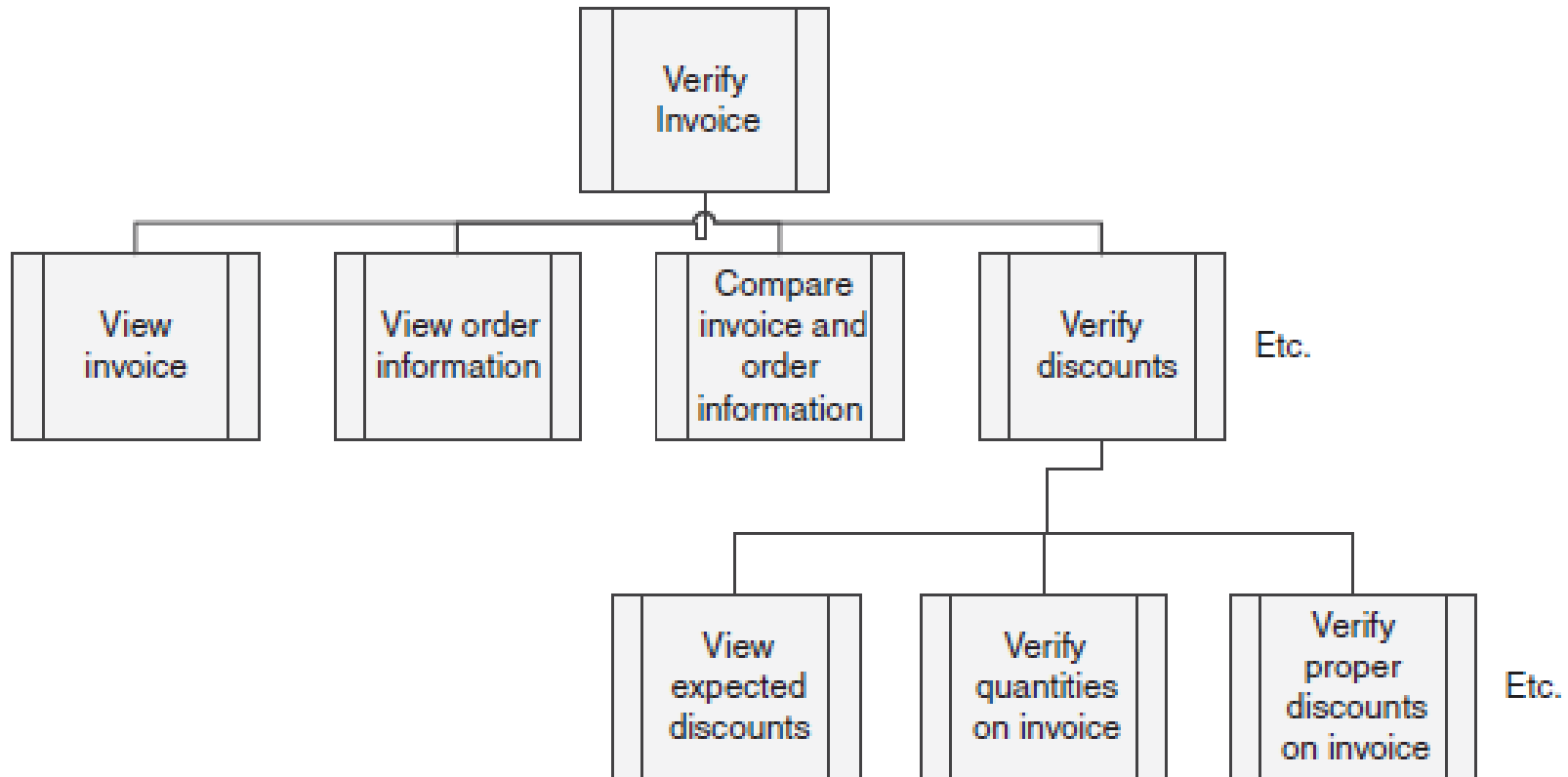
- ▶ Series of steps or tasks required to achieve a specific goal



A process may

- extend across many organization boundaries
- involve a large number of individuals
- require many decisions and actions along the way

Sub-processes



Technology and Processes

- ▶ Technologies play an ever increasing role in how business processes are performed and modified.
- ▶ Technology can also be a barrier or constraint to business process improvement.

Process Improvement: Business Process Reengineering

- ▶ Business processes are inherently cross-functional
- ▶ BPR seeks to break down organizational silos by redesigning business processes



Public use: Pixabay.com

Improving Processes

- ▶ What are our key business processes?
- ▶ Do we have to execute each process?
- ▶ How can we use **information technology** to perform these processes in better ways?
- ▶ What are the likely impacts of the business process redesign?

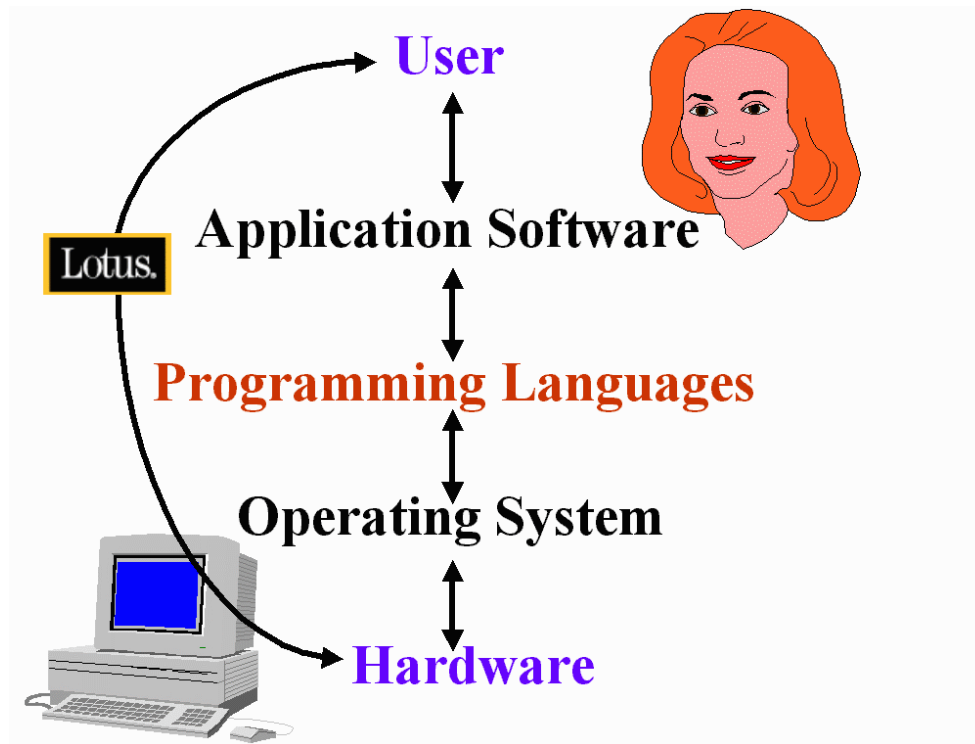


Software Appendix B

What is software?

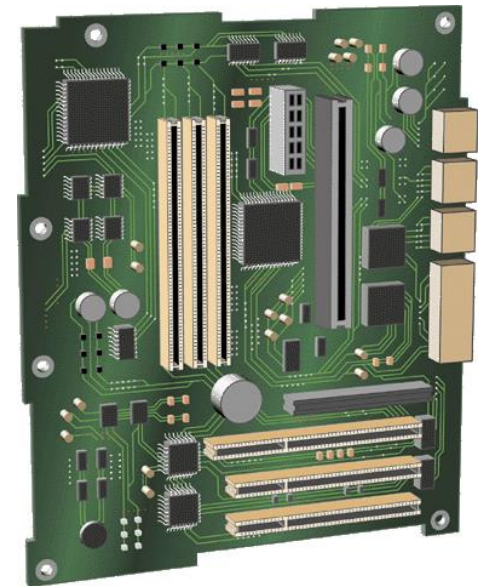
- ▶ Groups of **Programs**
 - ▶ **Programs are a series of instructions that tell the computer what to do**
- ▶ For Example: in Excel
 - ▶ An instruction would be:
 - ▶ Add the contents from Cell B17 to B24
 - ▶ Instruction:=SUM(B17:B24)

Software types:



System/Operating Software

- ▶ Set of programs that coordinates the activities of various hardware components



Operating Systems: 3 main functions

| Feature | Nickname | Purpose |
|--|-------------|---|
| Manage Hardware | Traffic Cop | Directs the flow of data between hardware components such as RAM, disk drives, CD's, CPU, and Printers Also provides how programs are executed and some limited security Attempts to maximize system resource utilization |
| User Interface GUI (graphic user interface) | Icons | Provides a common feel and look to the tool bars lines for all the applications. Makes it easier for a user to learn how to use the software |
| Storage / Retrieval | Librarian | Provides a standard format to store and retrieve the data on storage devices (RAM, disk drives etc) |

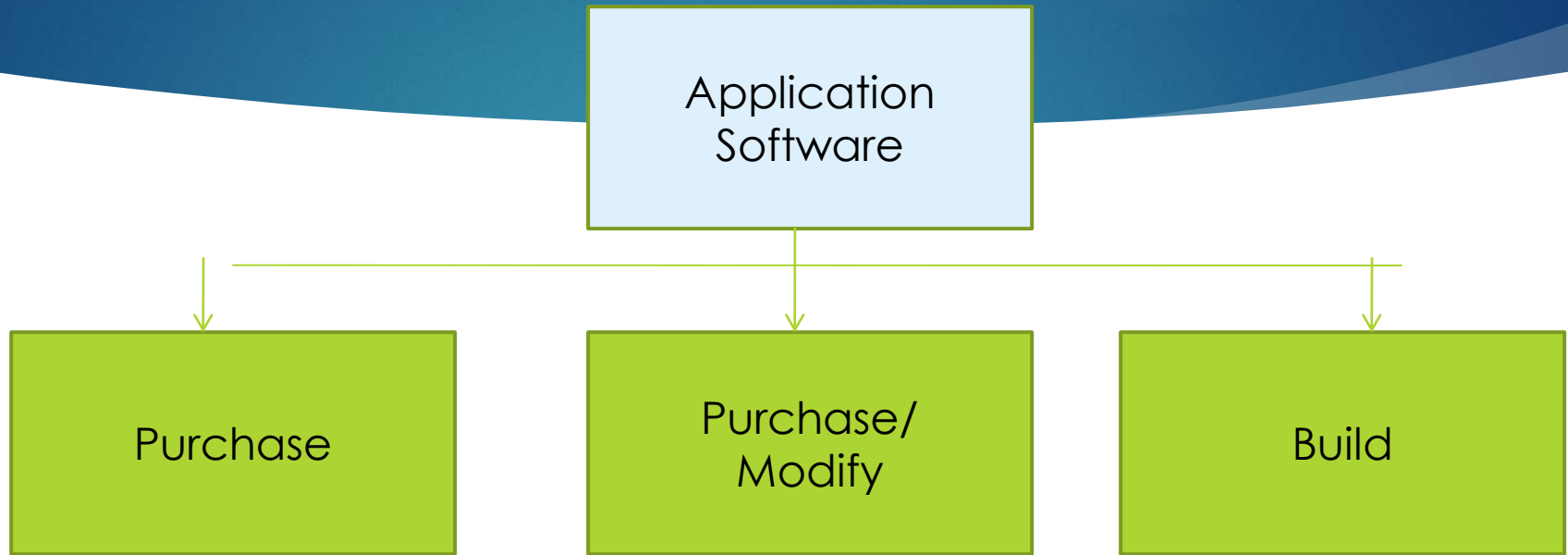
Operating Systems / desktops

| Operating Family | Interface | Best Tasks | Market Share |
|------------------------------|-------------------------------------|---|------------------------------|
| Windows 10 Windows Family | GUI (graphic) | Business Applications Numerical Applications Basic Communications | 77% of business & home |
| Mac Family | GUI | Graphical Applications Multi media Design/Creative arts | 17% |
| Linux / Unix | Command (unless you purchase) | Web Servers Computer Geeks | 2%+ |

Phone Operating Systems Based on Shipments (2021 & 2022)

| Operating Family | Market Share (Worldwide) | Market Share (US) |
|-------------------------|---------------------------------|--------------------------|
| iOS / Apple | 28% | 51% |
| Samsung / Android | 28% | 27% |
| Others | 44% | 22% |

Application Software



Payroll Program?

Harris Teeter Customer Tracking

Personal Productivity Software

Ranked by Usage

Browsers (Chrome / Edge / Safari / Firefox)

Word Processors (Word, Google Docs, Pages)

Spreadsheet (Excel, Google Docs, Numbers)

Presentation (PowerPoint)

Database (Access, msSQL, ProGres)

Programming Languages

- ▶ HTML 5 + CSS 3 (Web Languages)
 - ▶ Java
 - ▶ Python
 - ▶ C#
 - ▶ PHP
 - ▶ C++
- ▶ Permit the application developer more control and customization