

ROADMAP

START

Week 1:

Introduction & Systems Analysis

- Course Description
- Systems Thinking

Assignments #01 & 02

Week 2:

Digital Product Management & Introduction to Process Mapping

- Max Labs 1a & 1b
- Systems & Processes
- Swim Lane Diagrams

Assignment #03

Week 3:

Data Modeling with Entity Relationship Diagrams

- Swim Lane Diagrams
- ERD Diagrams

Assignment #04

Week 4:

Digital Systems – Learn IT! #1

- ERD Diagrams
- Learn IT Kickoff

Assignment #05

Week 5:

Exam #1, Max Labs & Information Systems: Part I & II

- CRM & ERP

*Exam: check course site

Assignment #06

Week 9:

Exam #2 & JavaScript Unit #1 - Part I & II

- Hello World, Variables

*Exam: check course site

Week 8:

Cybersecurity & AI – Part I & II

- Protection Protocols
- Artificial Intelligence

Assignment #08

Week 7:

Platforms & Digital Business Models: Part I & II

- Platforms & Digital Models
- APIs

Week 6:

Information Systems: Part III & IV

- Data Analytics
- SCM

Assignment #07

Week 10:

JavaScript Unit #2 Functions

- Operator types
- Strings

Assignment #9

Week 11:

JavaScript Unit #3 Logical Operators & Conditional Logic

- Logical Operators
- Conditional Types

Week 12:

JavaScript Unit #4 Loops

- Intro to Loops
- While and Do

Assignment #10

Week 13:

JavaScript Unit #4 Working with Loops

- Writing the code

Week 14:

HTML & CSS Unit

- HTML basics
- CSS basics
- Course Reflection

Assignments #11

FINISH



Digital Systems

5.2 Information Systems: Part I - ERP

FOX
MIS

What is ERP?

Enterprise Resource Planning

- Software or a System that:
 - Integrates functions
 - Streamlines processes
 - Manage core business

What problems could be solved by an ERP?

Are you familiar with Banner?

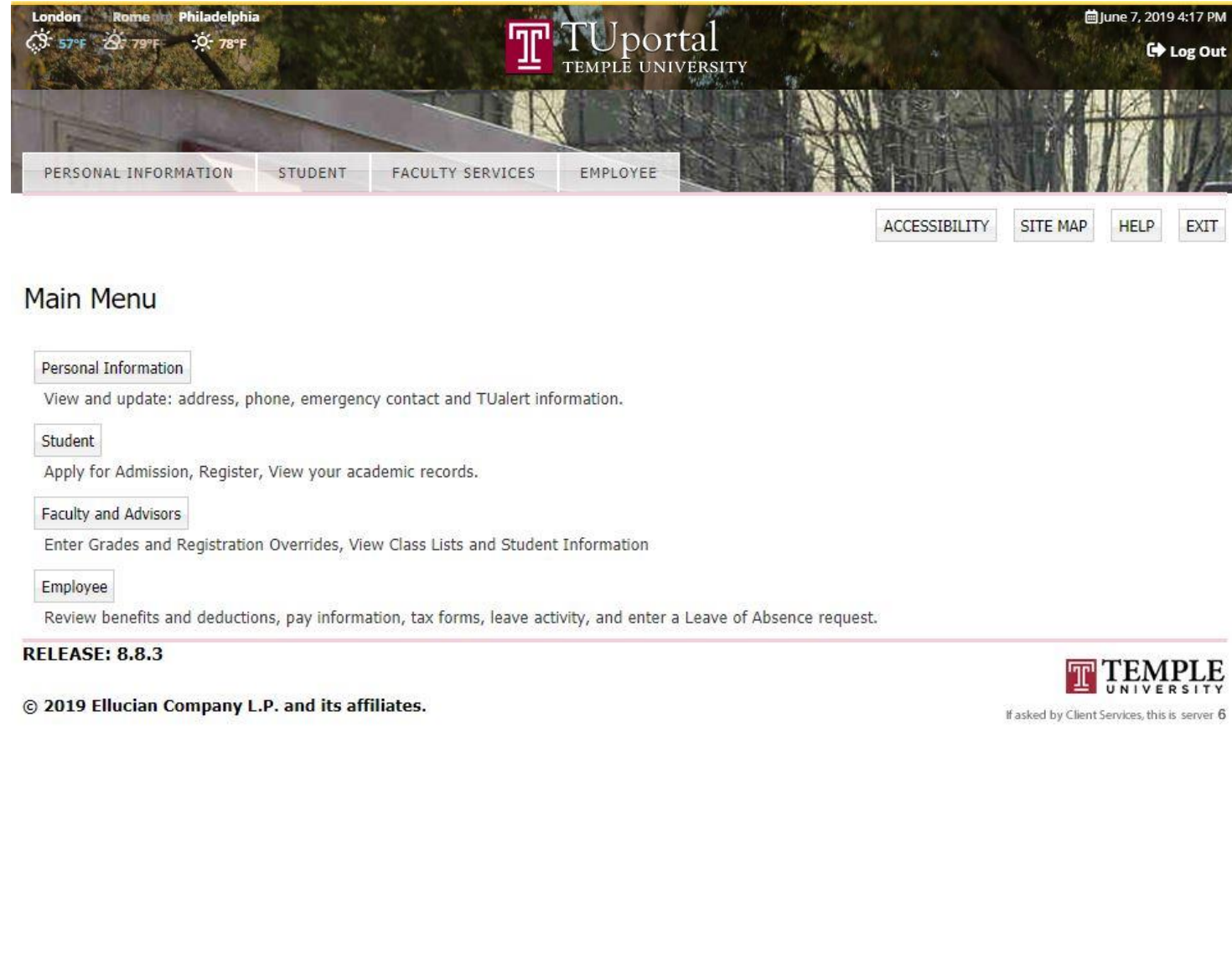


Source: <https://erpinnews.com/5-enterprise-resource-planning-erp-trends-to-watch-in-2019>

ERP - example

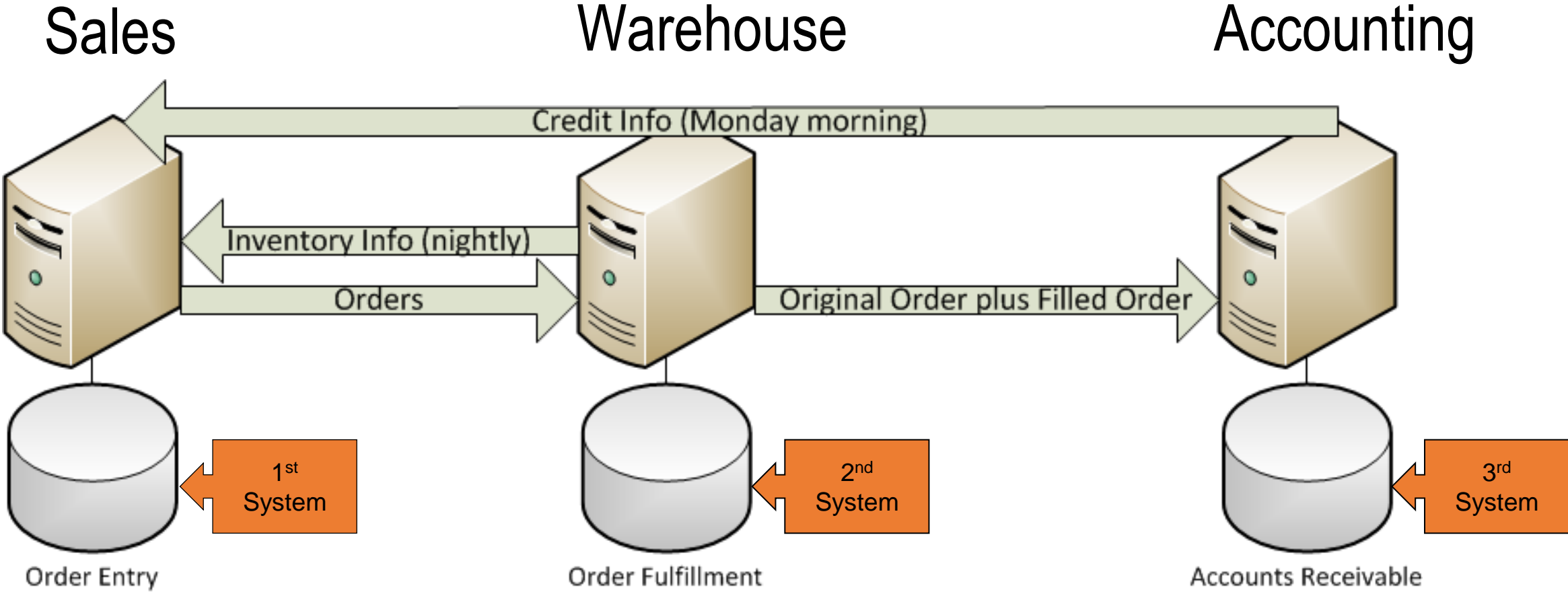
Database with a holistic vision!

- Who else uses banner?
- What functions does banner serve for each user?
- What are the benefits to the University?



The screenshot displays the TUportal interface for Temple University. At the top, there is a weather bar for London (57°F), Rome (79°F), and Philadelphia (78°F), along with the date and time (June 7, 2019 4:17 PM) and a Log Out button. Below this is a navigation bar with tabs for PERSONAL INFORMATION, STUDENT, FACULTY SERVICES, and EMPLOYEE. On the right side, there are buttons for ACCESSIBILITY, SITE MAP, HELP, and EXIT. The main content area features a 'Main Menu' section with four categories: Personal Information (View and update: address, phone, emergency contact and TUAalert information), Student (Apply for Admission, Register, View your academic records), Faculty and Advisors (Enter Grades and Registration Overrides, View Class Lists and Student Information), and Employee (Review benefits and deductions, pay information, tax forms, leave activity, and enter a Leave of Absence request). At the bottom, it shows the release version (RELEASE: 8.8.3), copyright information (© 2019 Ellucian Company L.P. and its affiliates), and the Temple University logo with the text 'If asked by Client Services, this is server 6'.

Legacy Systems

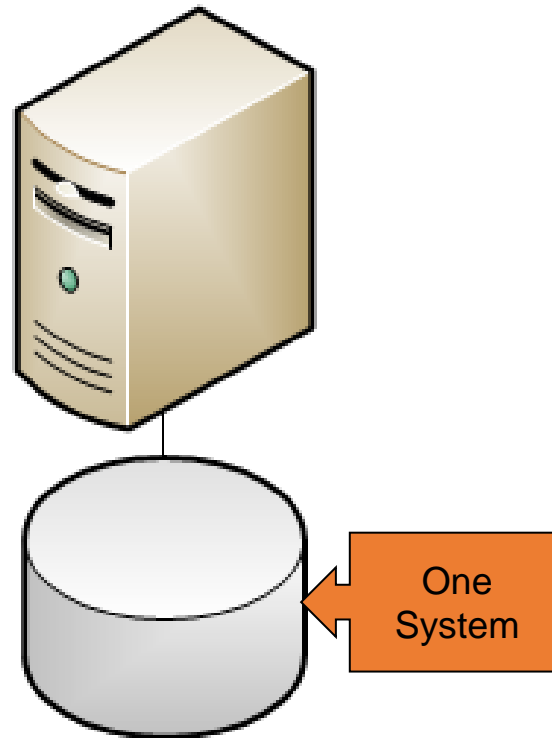


Enterprise Systems

Sales + Warehouse + Accounting

ERP analysis

- How many copies of data?
- What about decision making?
- What is eliminated?
- Client impact?



ERP – Key Takeaways

How does ERP create value?

- Integrated Database
 - One copy of data
- Collaboration
 - Improves decision making
- Flexibility & Mobility
 - Access anywhere/anytime
- Lowers costs



Source: <http://blog.pragtech.co.in/erp-business-success/>

ERP – Value Proposition

Automates core business operations

- Why is this important for...
 - Risk Management?
 - Marketing majors?
 - HR & Accounting?
 - Finance & Strategy?
 - Anyone else?



Source: <https://www.strategic.com/blog/2017/3-reasons-erp-training-important/>



Digital Systems

5.2 Information Systems: Part II CRM

FOX
MIS

What is CRM?

Customer Relationship Management

Who Uses CRM?

- Sales
- Marketing
- HR
- Accounting
- Strategy



Source: <https://collectiveinnovation.com/the-art-of-customer-relationship-management/>

What is CRM?

Customer Service:

Have you experienced this? Why?

- Transferred 2 or more times
- Repeat Story
- Disconnected
- Hold time approximately...
 - Fantastic music



Source: <http://donthatethegeek.com/cellular-carriers-screwing-phones/>

CRM Case Study:

Xfinity

The screenshot displays the Xfinity support website interface. At the top, there is a navigation bar with links for 'XFINITY', 'COMCAST BUSINESS', 'MY XFINITY', 'SHOP/UPGRADE', 'SUPPORT', and 'MY ACCOUNT'. On the right side of the navigation bar, there are icons for a notification (with a '3' badge), a monitor, a home, Wi-Fi, a phone, a mobile phone, and a user profile labeled 'STEVE'. Below the navigation bar, the main heading reads 'xfinity How can we help?' followed by a search bar with the placeholder text 'Search topics or keywords'. Underneath the search bar, it lists 'Popular searches: [Reset My Password](#), [Sign In](#), [Check Email](#)'. The main content area is divided into five columns representing different service categories: INTERNET, TV, VOICE, HOME, and MOBILE. Each column contains a list of support topics and a 'Browse' link. Below this, there is a 'Common Solutions' section with three cards: 'Accessibility', 'Account & Billing', and 'Status Center', each with a brief description and a 'View' link.

Category	Support Topics	Action
INTERNET	WiFi Name and Password Restart Modem Perform a Speed Test	Browse Internet Support
TV	X1 Remote Setup Troubleshoot Change My Plan	Browse TV Support
VOICE	Voice Welcome Guide No Dial Tone Error Voice Security PIN	Browse Voice Support
HOME	Arm/Disarm Your System Setting Up Rules Troubleshooting	Browse Home Support
MOBILE	Get support for your Xfinity Mobile service and devices	Browse Mobile Support

Solution	Description	Action
Accessibility	Learn about closed captioning, voice guidance, and other features for users with disabilities.	View Accessibility Support
Account & Billing	Learn about your bill, enrolling in automatic payments, and managing your services.	View Account & Billing Support
Status Center	View potential service outages and troubleshooting solutions.	View Status Center

Source: <https://www.xfinity.com/support/?CMP=ILC:MA:BAU:SUB:COM:HLP:INT55e0877fe16f7/>

CRM Case Study:

Amazon

- Data Collection
- Personal Storage
- Recommendations
- Support

The screenshot shows the Amazon Help Center interface. At the top, there's a navigation bar with the Amazon Prime logo, a search bar, and the text "Prime Day deals on July 15 & 16". Below this, a personalized greeting says "Hi, Steve. What can we help you with?". The main content area features six service tiles: "Your Orders" (Track packages, Edit or cancel orders), "Returns & Refunds" (Return or exchange items, Print return mailing labels), "Digital Services and Device Support" (Find device help & support, Troubleshoot device issues), "Manage Prime" (Learn about Prime benefits, Cancel Prime membership), "Payments & Gift Cards" (Add or edit payment methods, View, reload gift card balance), and "Account Settings" (Change email or password, Update login information). Below these tiles is a "Find more solutions" search bar with a "Go" button. At the bottom, there's a "Browse Help Topics" section with a list of recommended topics on the left and a "Need more help?" section on the right with links to "Ask the Digital and Device Community", "Contact Us", and "Ayuda en Español".

Source: https://www.amazon.com/gp/help/customer/display.html?nodeId=508510&ref_=nav_cs_help

Why purchase CRM?

- Do companies really need CRM?
- Why?
- What businesses would benefit?



WHEN A COMPANY **ENGAGES** A CUSTOMER USING A CRM, THAT CUSTOMER IS LIKELY TO SPEND **20%-40% MORE** THE NEXT TIME THEY MAKE A PURCHASE WITH THAT PARTICULAR COMPANY.

A CRM CREATES A **POSITIVE** CUSTOMER EXPERIENCE. AS A RESULT,

70% OF CUSTOMERS WHO HAVE HAD A **POSITIVE EXPERIENCE** WILL REFER THAT COMPANY TO **FAMILY AND FRIENDS**.



OF COMPANIES **WITNESSED** AN INCREASE IN SALES PRODUCTIVITY BY USING **CRM MOBILE APPS**.

BUSINESSES ALSO WITNESSED A



INCREASE IN **CASH FLOW** BY USING A **CRM MOBILE APP**.

CRM'S HAVE ALSO

INCREASED REVENUE BY **41%** PER EACH INDIVIDUAL **SALES REPRESENTATIVE**

LED TO SALES CONVERSION RATE IMPROVEMENTS OF OVER **300%**

HAVE LED TO AN INCREASED CUSTOMER RETENTION RATE OF **27%**



HAVE **SLASHED** MARKETING COSTS BY **23%**



HAVE INCREASED **PROFIT MARGINS** BY OVER **2%**

Source: <https://devftw.com/top-15-crm-software-for-retailers/>

Why purchase CRM?

Customer Relationship Management

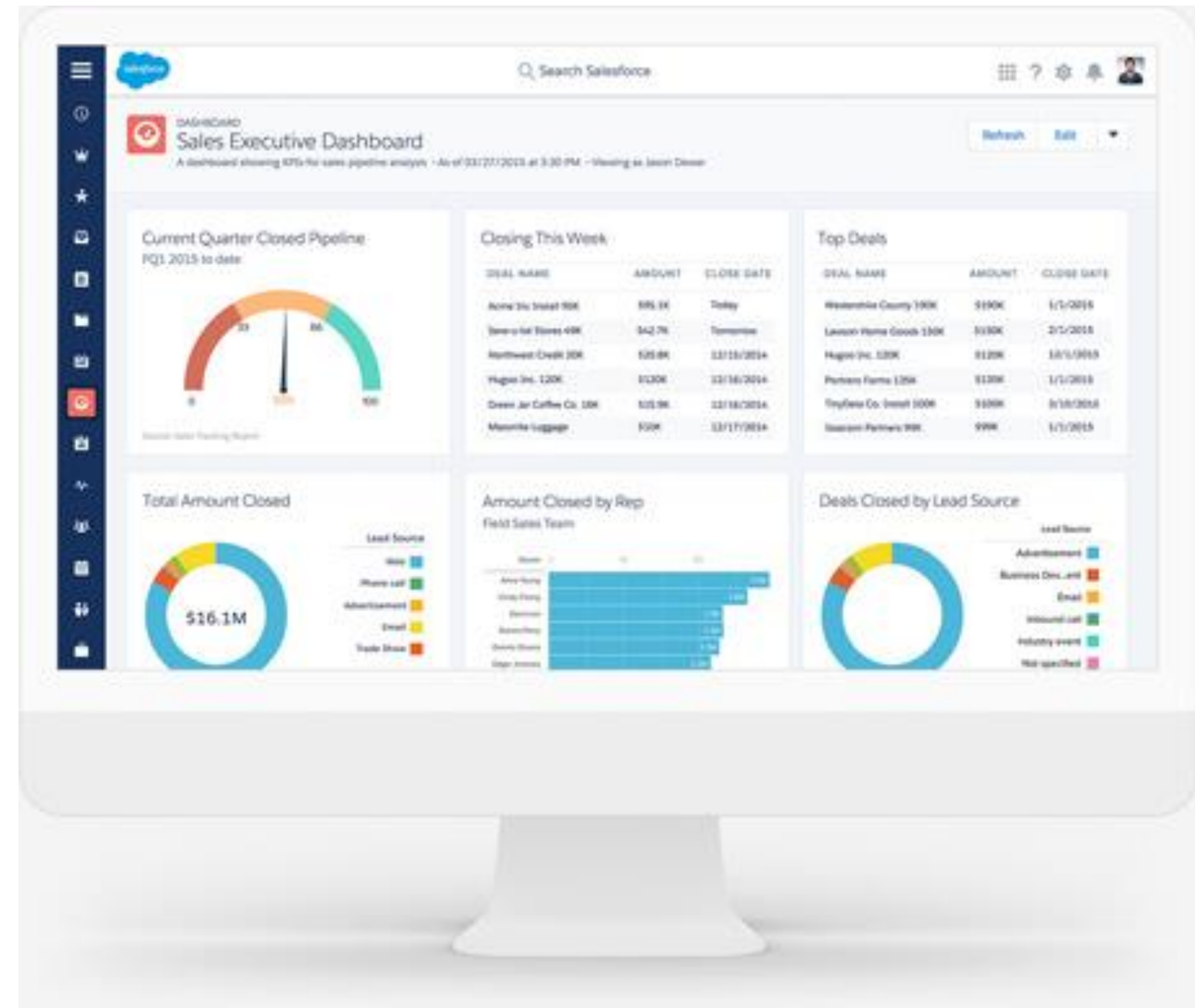
- CRM's track what kind of data?
- How do organizations use data?



Source: <https://www.salesforce.com/hub/service/customer-service-examples/>

CRM Dashboards

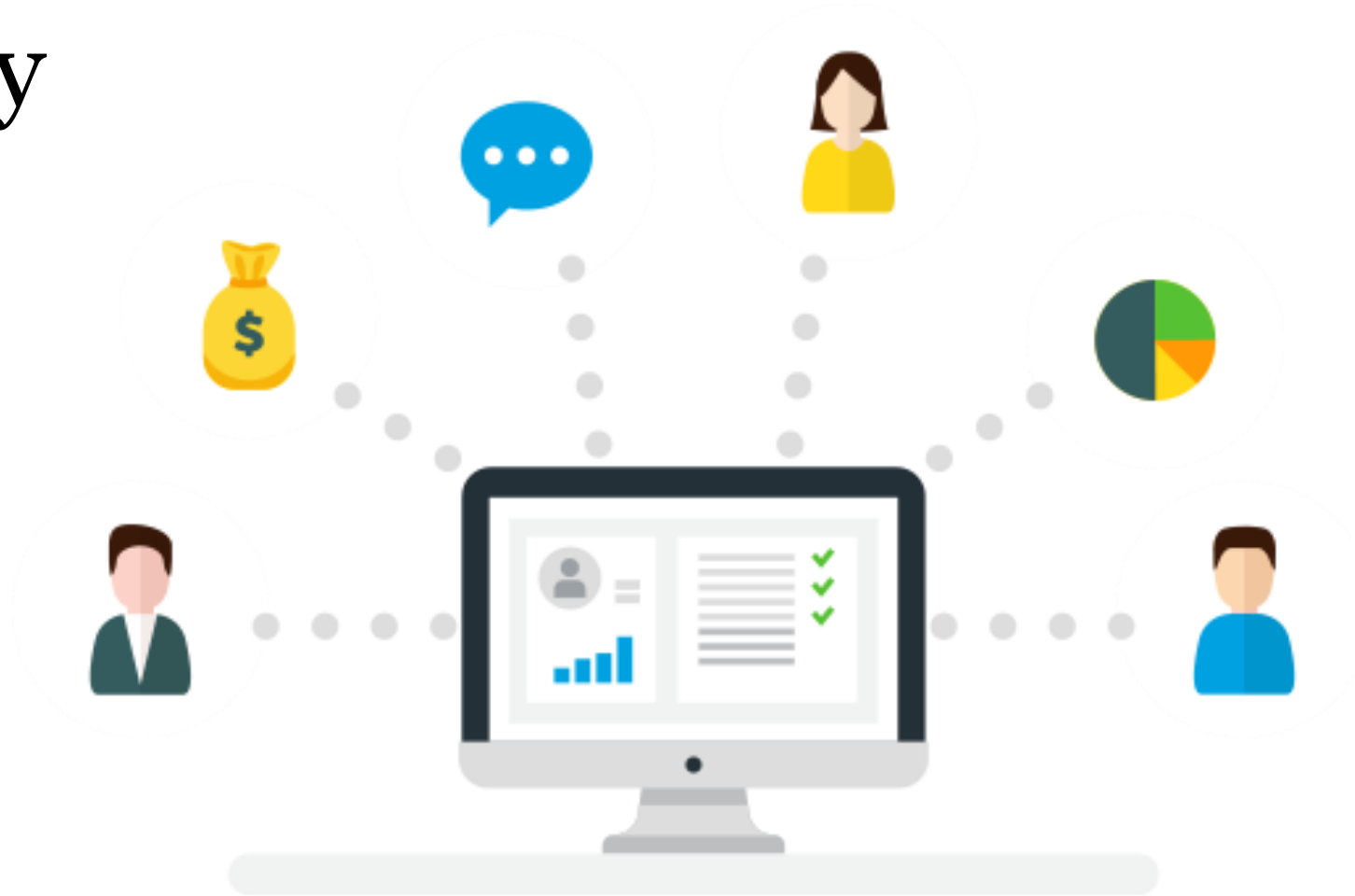
- What do they do?
- Who in the organization might want or need a CRM dashboard?
- Why are they important?



Source: <https://www.salesforce.com/eu/learning-centre/crm/what-is-crm/>

CRM Accountability

- What does this mean?
- Where is the data?
- Why is this important?



Source: <https://www.workwisellc.com/crm-software/what-is-crm/>

CRM Benefits

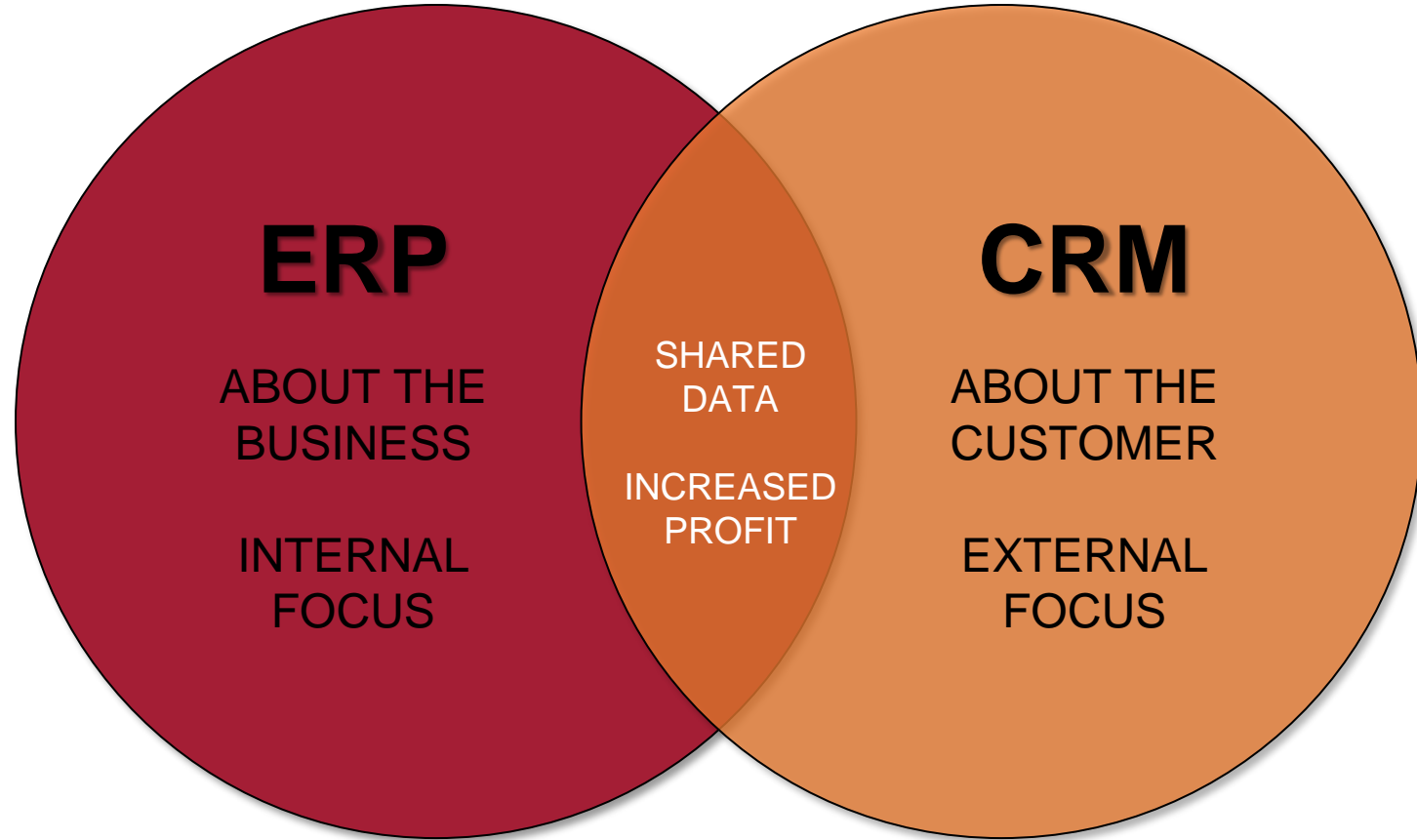
- Maximize Profits
- Understand Your Customer (data)
 - Analyze Buying Patterns
 - Problem Solve
- Accountability
- Customer Communication
- What else?



Source: <https://strategiesgroup.com/blog/benefits-of-crm/>

ERP & CRM

- **What's the Difference?**
- **Which is a better first investment for a business?**
- **Why?**



More to Come

Prepare with Readings & Videos before our next class!!!