MINNESOTA TECH FOR SUCCESS
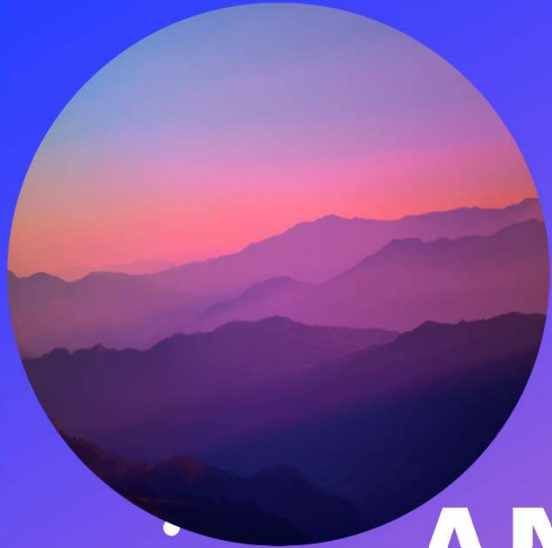
Week 13-15: Cloud Computing

3/6/2024

Agenda

- **Announcements**
- **Classroom (25 min)**
  - Recap Uses of the Cloud
  - How to Use Cloud Services
  - Intro to Microsoft Azure
- **Break (5 min)**
- **Warehouse (1.5 hrs)**
  - Recycling

ANNOUNCEMENTS

Week 15

Announcements for 3/6

- **Calendar**
  - Next session: **Wednesday, 3/13/2024**

- Week 13-15: Cloud Computing – Feb. 21st , 28th , & Mar. 6th

- Week 16-18: Database Management and Troubleshooting – Mar. 13th, 27th, & Apr. 3rd

Values

- **R**espect
- **A**ccountability
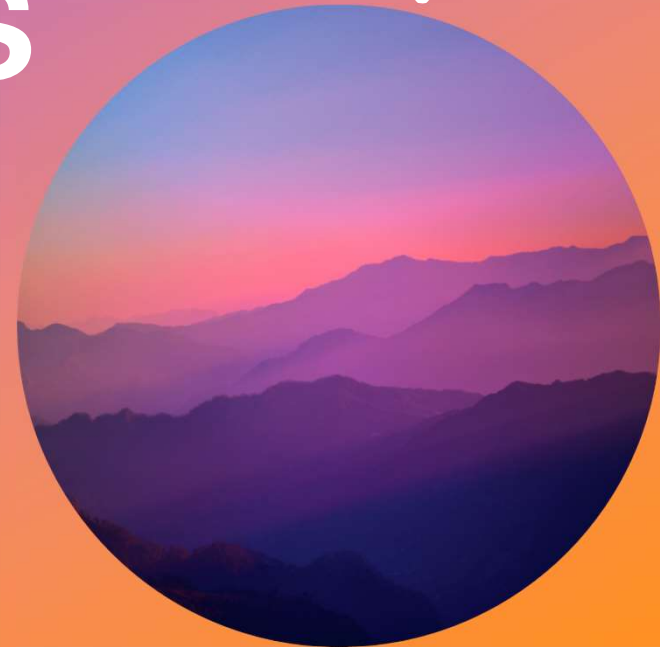- **I**mprovement
- **S**teadfast
- **E**ncouragement

MODULE 3: ADVANCED IT CONCEPTS

Cloud Computing

Cloud Computing: Objectives

1. What is cloud computing?
   - Explanation of cloud computing, its advantages, and how it's used to store data and run applications remotely.
2. Introduction to major cloud providers
   - Overview of major cloud service providers such as Amazon Web Services (AWS), Microsoft Azure & Google Cloud.
3. Everyday uses of the cloud
   - Examples of common cloud-based services like email, file storage, and streaming.
4. How to use cloud services
   - Practical guidance on accessing and using cloud services.

RECAP: EVERYDAY USES OF THE CLOUD

Recap: Common Business Uses of the Cloud

- Production migration
- Traffic Bursting
- Backup & Disaster recovery
- Web Hosting
- App development and testing
- Proof of concept
- Big Data and data manipulation

Recap: Business Applications: CRM

- CRM – Customer Relationship Management
    - process in which an organization administers its interactions with customers using data analysis to study information

- CRM systems allow organizations to learn more about their target audiences and how to cater to their needs

- Goal: Retain customers, drive sales growth

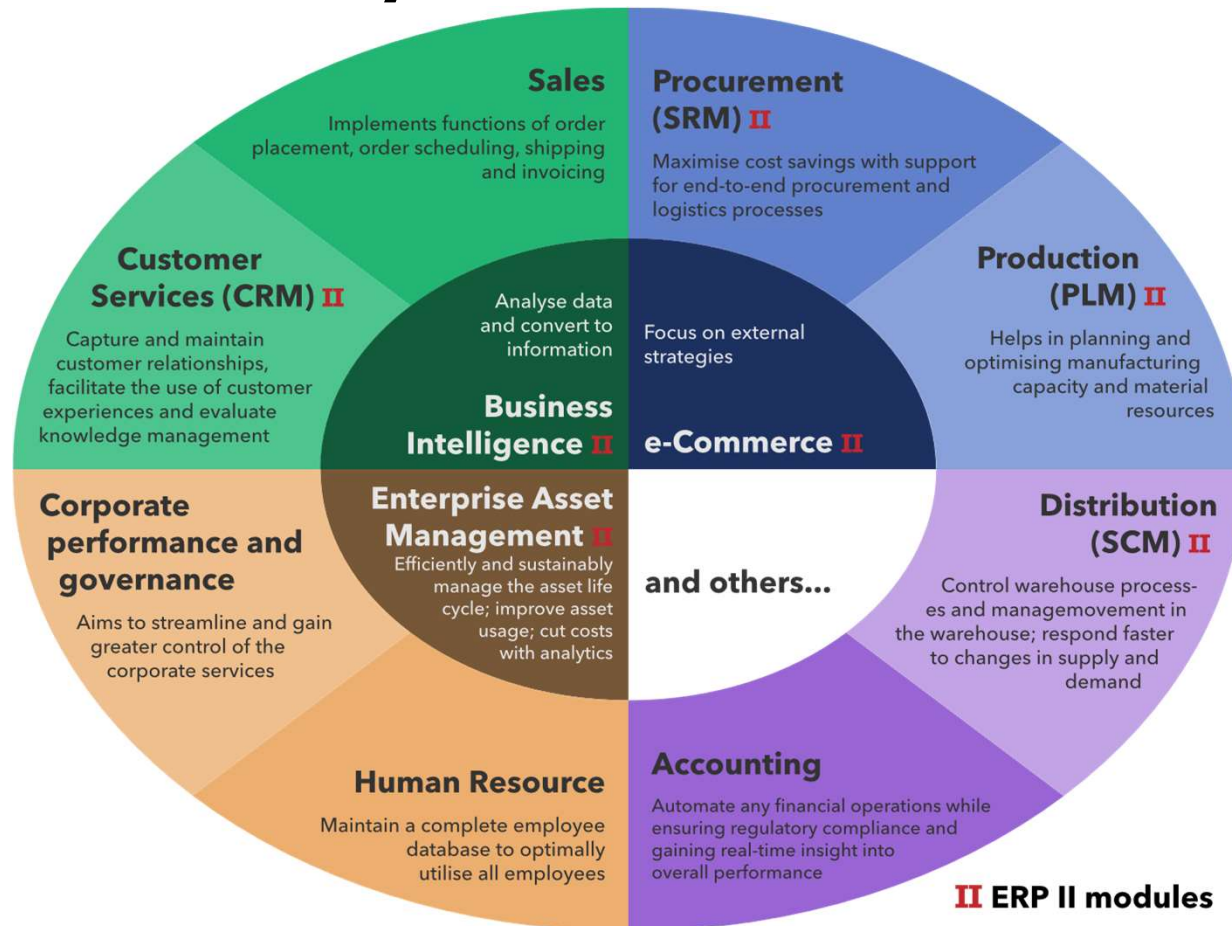# Recap: Business Applications: ERP

- ERP - enterprise resource planning
    - the management of all the information and resources involved in a company's operations by an integrated computer system

- Can run an organization from a single software platform. Once the sole property of large enterprise, the cloud now lets small to midsize businesses take advantage of ERP's benefits

Recap: ERP System Overview

Sales — Implements functions of order placement, order scheduling, shipping and invoicing

Procurement (SRM) II — Maximise cost savings with support for end-to-end procurement and logistics processes

Customer Services (CRM) II — Capture and maintain customer relationships, facilitate the use of customer experiences and evaluate knowledge management

Production (PLM) II — Helps in planning and optimising manufacturing capacity and material resources

Business Intelligence II — Analyse data and convert to information

e-Commerce II — Focus on external strategies

Corporate performance and governance — Aims to streamline and gain greater control of the corporate services

Enterprise Asset Management II — Efficiently and sustainably manage the asset life cycle; improve asset usage; cut costs with analytics

and others...

Distribution (SCM) II — Control warehouse processes and manage movement in the warehouse; respond faster to changes in supply and demand

Human Resource — Maintain a complete employee database to optimally utilise all employees

Accounting — Automate any financial operations while ensuring regulatory compliance and gaining real-time insight into overall performance

II ERP II modules

Recap: Everyday End-user Uses of the Cloud

- **SaaS**
  - Entertainment: Netflix, Spotify
  - Social Network: Facebook, X (Twitter), Instagram, TikTok
  - Assistant: Siri, Alexa, Google Assistant, Bixby
  - Messaging: WhatsApp, Messenger
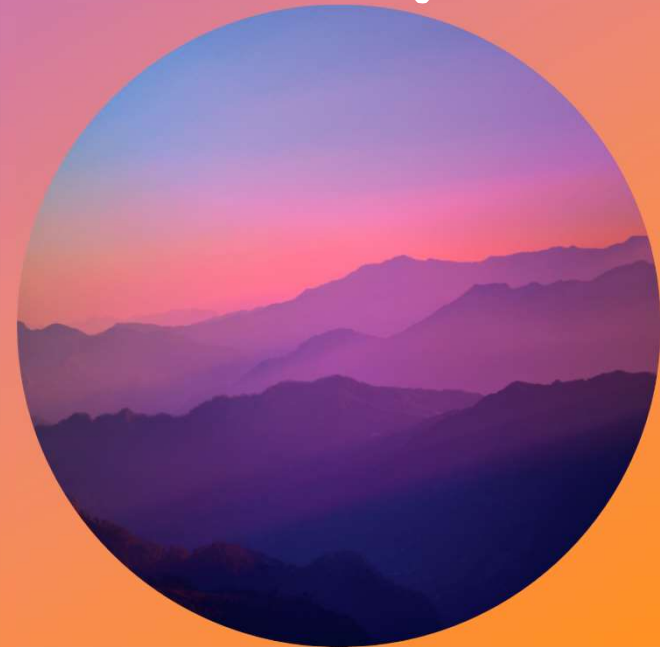 - Productivity: Microsoft 365, Google Workspace,

- **IaaS**
  - Vmware, IBM Cloud, AWS

- **PaaS**
  - AWS, GCP, Azure

INTRODUCTION TO MAJOR CLOUD PROVIDERS

Microsoft Azure

MICROSOFT AZURE

Azure Offers

- **Products**
  - 200+
  - AI + machine learning, Analytics, Compute, Containers, Databases, DevOps, Developer tools, Hybrid + multicloud, Identity, Integration, Internet of Things (IoT), Management and governance, Media, Migration, Mixed reality, Mobile, Networking, Security, Storage, Web, Virtual desktop infrastructure

- **Azure Certification**
  - 18 certifications
  - Examples: Azure Security Engineer Associate, DevOps Engineer Expert, Azure AI Engineer Associate

More at https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RE4J5ea

How to Use Cloud Services

- **SaaS**
  - Most common – used on most apps on mobile devices & PCs
  - Open Browser/open app > Access website (if applicable) > Login > Use
  - Demo: Atlassian Jira

- **IaaS**
  - Provider hosts, maintains, and updates backend infrastructure – compute, storage, networking, virtualization
  - Open Browser > Login > access panel (ie. Cpanel) > configure and monitor settings > use
  - Demo: Hostinger

- **PaaS**
  - Commonly accessible through a website portal/landing page
  - Access Website> login > select application> develop & test > deploy/use
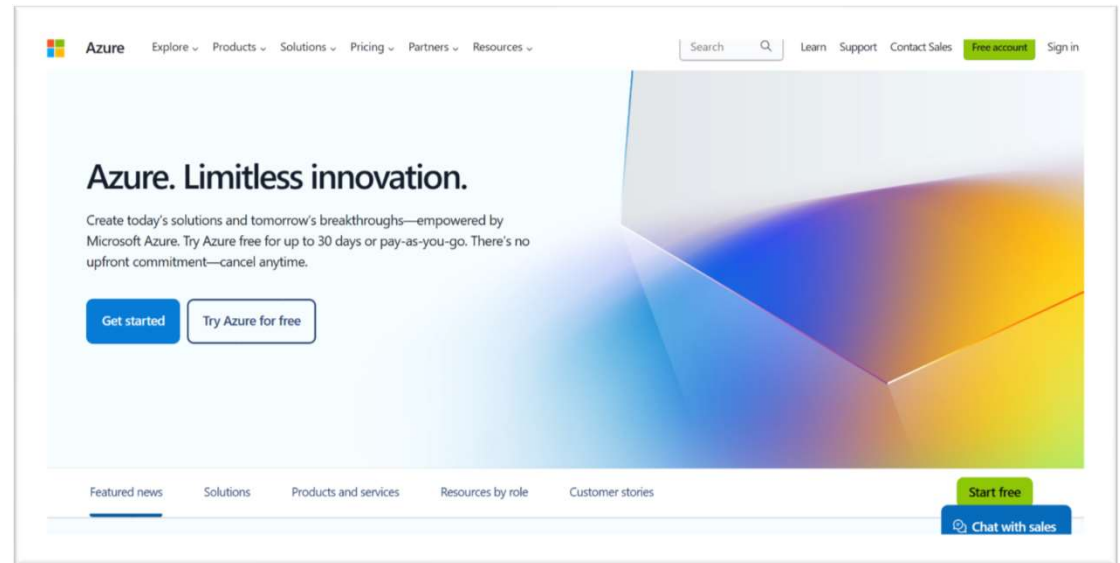 - Demo: Microsoft Azure

Explore Azure

1. Navigate to azure.microsoft.com

2. Explore the website

3. Search for and learn more about products & services

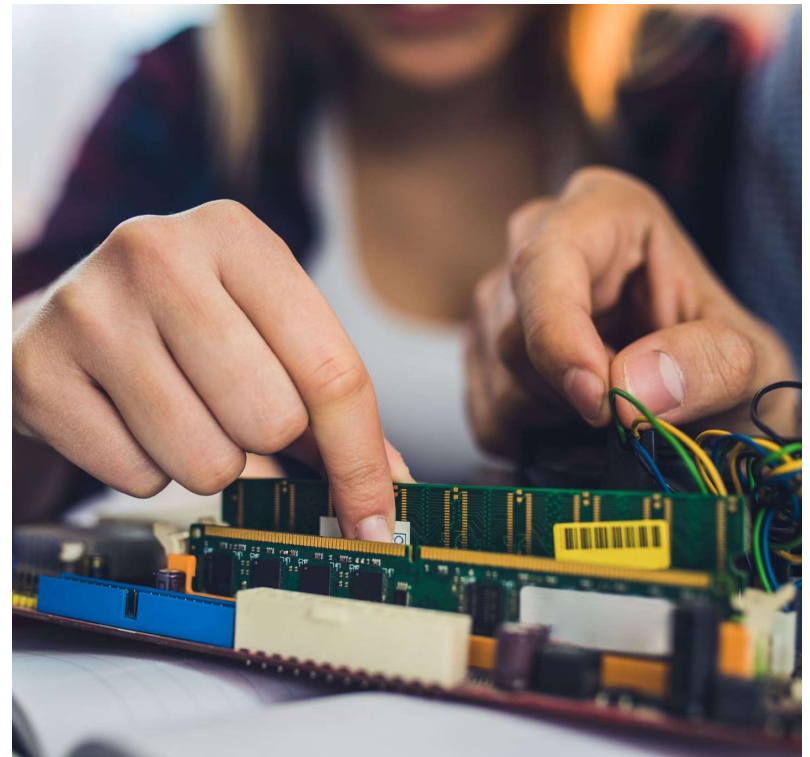4. Bonus: find official Microsoft Azure certification info

Warehouse Activity

- 1:30-3:00pm
- Parting/recycling

BREAK

5 minutes