

## Slide 1: Introduction to DevOps

- **Definition:** Combines software development and IT operations.
  - **Purpose:** Shortens the development lifecycle, delivers continuous integration and deployment.
  - **Core Principles:** Collaboration, automation, CI/CD, monitoring.
- 

## Slide 2: Overview of Azure DevOps

- **Components:** Repos, Pipelines, Boards, Test Plans, Artifacts.
  - **Features:**
    - CI/CD Pipelines: Automate build, test, deploy.
    - Version Control: Git repositories.
    - Agile Tools: Kanban boards, backlogs.
- 

## Slide 3: Workflow Overview

- **Source Code Management:**
    - **Bitbucket:** Feature branches, develop branch for non-prod environments, release branch for production.
  - **Security and Quality:**
    - **Snyk:** Code vulnerability scans.
    - **SonarCloud:** Code quality checks.
  - **Secrets Management:**
    - **Akeyless:** Secure storage for secrets and credentials.
- 

## Slide 4: Build and Deployment Pipeline

- **CI Pipeline:**
    - Build Docker images for web app and APIs.
    - Push images to **Azure Container Registry (ACR)**.
    - Create DACPAC files and push to Azure Artifacts.
  - **CD Pipeline:**
    - Deploy Docker images to Azure App Service.
    - Deploy DACPAC files to Azure SQL Server.
- 

## Slide 5: Application Architecture

- **Azure App Service:**

- Hosts web app and APIs.
    - Supports multiple environments (Dev, QA, Pre-Prod, Prod).
  - **Azure SQL Server:**
    - Databases for each service (Accounting, Admin, Actuarial, Claims, Litigation, Premium Audit, Underwriting).
- 

## Slide 6: Azure API Management

- **Role:** Centralizes and manages APIs.
- **Functions:**
  - Secures, scales, and monitors APIs.
  - Provides a single entry point for all microservices.
  - Ensures seamless integration and connectivity between microservices and Azure SQL Server.