

## Azure Identity and Access Management (IAM) Project

This document showcases key concepts and practical implementations of Azure IAM that demonstrate expertise in managing identities, access, and security in the cloud.

### 1. Role-Based Access Control (RBAC)

RBAC is a critical Azure IAM feature that enables precise management of access to resources. In this project, the following steps were performed to implement RBAC:

- a. Identified roles for various teams (e.g., Admin, Developer, Read-only).
- b. Assigned built-in roles like 'Owner', 'Contributor', and 'Reader' to users and groups.
- c. Created custom roles with JSON templates for specific permissions.

**Outcome:** This ensured the principle of least privilege, reducing security risks.

### 2. Conditional Access Policies

Implemented Conditional Access policies to enforce access controls based on conditions like location, device, and risk level.

- a. Configured policies to block access from untrusted locations.
- b. Required multi-factor authentication (MFA) for sensitive resources.
- c. Enabled session controls to monitor and limit actions.

**Outcome:** Enhanced security by ensuring access only from trusted environments.

### 3. Identity Protection

Azure AD Identity Protection was utilized to detect and respond to identity-based threats.

- a. Configured risk-based policies to automatically block risky sign-ins.
- b. Monitored user risk and sign-in risk levels in Azure AD reports.
- c. Automated password resets for compromised accounts.

**Outcome:** Reduced the risk of unauthorized access through proactive threat management.

### 4. Privileged Identity Management (PIM)

Privileged Identity Management was implemented to manage, monitor, and control access to sensitive roles.

- a. Enabled just-in-time (JIT) access for privileged roles.
- b. Configured approval workflows for role activation.
- c. Reviewed access logs to ensure compliance.

**Outcome:** Minimized the attack surface by reducing standing permissions.

## 5. Integration with Azure Active Directory

Azure AD integration was utilized for seamless identity management across applications.

- a. Integrated on-premises Active Directory with Azure AD using Azure AD Connect.
- b. Enabled single sign-on (SSO) for cloud applications.
- c. Configured application proxy for secure remote access to on-premises apps.

**Outcome:** Streamlined identity management and improved user productivity.

## Conclusion

This project demonstrates a comprehensive understanding of Azure IAM concepts and their application in real-world scenarios. The implementation of RBAC, conditional access, identity protection, PIM, and Azure AD integration highlights the ability to design and manage secure, efficient cloud environments.