Azure Cloud Adoption Project Proposal

Objective: As an Azure Architect, you will propose an Azure-based solution to your peers for approval and budget. This assignment demonstrates your ability to leverage Azure services for real-world business challenges.

Project Scope (Scenarios – you will be assigned one of the Scenarios):

- **Scenario A: Modernizing Existing Infrastructure:** Migrate a critical on-premises application to Azure, improving its availability, scalability, security, and manageability. The application will move to the cloud infrastructure but will still need to access a custom transaction running on the mainframe of the company. The on-premises application must be business critical – You will have to describe the business and what the application does.
- **Scenario B: Developing a New Cloud-Native Application:** Design a cloud-native architecture for a new application using Azure services, emphasizing rapid development, scalability, and cost optimization. It is important that you select the appropriate data storage service and you should explain why the services were selected, according to today's discussion. Select an application that fits a business need – you will have to describe the business need.

Deliverables:

1. **PowerPoint Presentation (12-15 slides, including title and references):** Your presentation should simulate a professional proposal to stakeholders.
    - **Slide 1: Title Slide:** Project Title, Your Name(s), Course Name, Date.
    - **Slide 2: Executive Summary & Problem/Opportunity:** Briefly outline the project, the business problem or opportunity, and why Azure is the optimal solution.
    - **Slide 3: Proposed Azure Architecture (High-Level):** Provide a clear, high-level diagram illustrating your Azure solution. Briefly describe the core services used.
    - **Slides 4-9: Key Azure Services & Implementation (Select a minimum of THREE core Azure services from the "Key Concepts" list below, ensuring at least one from each category: Infrastructure, Data, and Monitoring. Dedicate 1-2 slides per service):**
        - **Service Name & Overview:** Define the service and its primary function.
        - **Project Relevance & Benefits:** Explain how this specific service addresses your project's needs and delivers business value (e.g., performance, cost, security).
        - **Demonstrated Implementation:** Include a screenshot or brief description from your Azure environment showing a practical application or configuration of this service (e.g., a configured VM, a storage account, an alert rule).

- **Slide 10: Foundational Azure Capabilities:** Explain how your architecture incorporates:
  - **High Availability & Scalability:** How the solution maintains uptime and handles varying loads (e.g., Availability Sets, VM Scale Sets, Load Balancers, database replication).
  - **Security & Access Control:** How data is protected and access to it is managed (e.g., Azure AD, RBAC, encryption, SAS).
- **Slide 11: Monitoring & Operational Excellence:** Describe your strategy for monitoring the solution's health, performance, and cost. Briefly mention automated responses.
- **Slide 12: Conclusion & Call to Action:** Summarize the benefits of your proposal and outline the immediate next steps needed for approval and implementation.
- **Slide 13 (or 15 if spread out): References:** Properly formatted list of all sources used.

Key Azure Concepts to Incorporate (at least one from each category in the core service slides):

- **Infrastructure & Compute:** VM Series/Sizes, Managed Disks, Virtual Networks, Network Security Groups (NSGs)/Access Control Lists (ACLs), Availability Sets, Load Balancers, Azure Resource Templates, Containerization, App Service.
- **Data Storage & Security:** Azure SQL Database (Tiers, DTUs), Azure Table Storage/Blob Storage, Shared Access Signatures (SAS), Mobile Apps in App Service, Access Keys, Data Encryption, Azure Key Vault, Role-Based Access Control (RBAC), Azure Active Directory (Azure AD), Azure Backup & Disaster Recovery.
- **Monitoring & Management:** Azure Automation (Runbooks), Custom Script Extension / DSC, Azure Monitor (implied for performance/health monitoring), Alerts & Action Groups (implied for automated responses).

Formatting & Submission:

- **Each slide** must clearly indicate the author(s) name(s) from your group.
- Save your presentation as a PDF and submit it through Moodle.

Grading Rubric:

- **Project Vision & Azure Alignment (20%):** Clarity of problem/opportunity, alignment with Azure capabilities.
- **Technical Depth & Accuracy (30%):** Comprehensive understanding of chosen Azure services and concepts, accurate explanations.
- **Demonstrated Practical Skills (25%):** Quality and relevance of Azure environment demonstrations/screenshots.

- **Solution Design (15%):** Effectiveness of HA, Scalability, Security, and Monitoring strategies.
- **Presentation Quality & Adherence (10%):** Professionalism, clarity, conciseness, and adherence to slide limits and citation guidelines.

Tips for Success:

- **Strategic Service Selection:** Choose services that most effectively address your scenario and allow you to showcase varied Azure features.
- **Compelling Visuals:** Use high-quality diagrams and screenshots to enhance understanding and engagement.
- **Business Focus:** Always articulate the business value and impact of your technical decisions.
- **Concise Messaging:** Every word counts on a limited slide deck. Be direct and impactful.
- **Hands-On Learning:** The best way to understand and demonstrate services is by **actively using them in Azure. Show the Azure implementation of at least two parts of your project.**

Groups and Scenarios:

Group	Scenario
A	A
B	B
C	A
D	B
E	A
F	B
G	A
H	B
I	A
J	B
K	A
L	B
M	A
N	B
O	A
P	B