**Cloud Application Development**

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**Continuous Evaluation Week 2**

**Deliverables for Week 2:**

The student has to submit a document that should provide a detailed justification for their choice of platform taking into consideration the features and capabilities, scalability and availability, pricing and billing options, and security and compliance measures. This will demonstrate their understanding of the importance of selecting the right application platform for their project and their ability to make Informed decisions based on the platform's capabilities and suitability for their specific requirements.

For the project Data Redundancy Removal System, we use Azure cloud platform.

Azure is a cloud computing platform offered by Microsoft that provides a wide range of services for building, deploying, and managing applications and services.

**Feature and Capabilities:**

Azure provides a range of services, including Internet of Things (IoT) services, machine learning, artificial intelligence, networking, storage, databases, virtual machines, and more. Azure offers information and tools for building, deploying, and managing cloud-based applications for developers, IT pros, and business users. Because to its adaptability, scalability, and affordability, it is a popular choice for companies of all kinds, from small businesses to major enterprises.

**Scalability and Availability:**

A popular option for businesses needing high levels of performance and dependability, Azure offers great scalability and availability for applications and services installed on its platform. Azure's auto scaling features, which let applications and services scale up or down automatically in response to demand, are one of the main ways it offers scalability. This guarantees cost- and resource-efficient utilization of resources. Moreover, Azure offers load balancing features that split incoming traffic among several instances of an application or service, guaranteeing that traffic is spread fairly and preventing individual instances from being overloaded.

**Cost-Effective:**

The price and invoicing structure for Azure is intended to be flexible and affordable for businesses of all sizes. The pay-as-you-go concept, which allows clients to only pay for the resources they use on an hourly basis, is one of the main features of Azure's pricing. This enables businesses to scale resources up or down in response to demand and only pay for what they really use.

Azure also offers materials and tools to assist users with budgeting and expense management. Customers may track and evaluate their expenditure on various Azure services, for instance, and set budgets and alerts to keep costs under control. Azure Adviser offers suggestions for maximizing expenditures and raising efficiency.

**Security and Compliance Measures:**

Azure prioritises security and compliance and provides a variety of tools to assist clients in safeguarding their data and applications. One of the most important procedures is certification for compliance, since Azure complies with many international standards and laws, including ISO 27001, HIPAA, GDPR, and many more. By doing this, it is ensured that customer data and application security complies with legal and industry standards.

At every stage of its infrastructure, Azure offers strong security protections in addition to compliance certification. This encompasses both network security measures like firewalls, network segmentation, and distributed denial-of-service (DDoS) prevention and physical security measures like access controls, video surveillance, and biometric identification.