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**Mini Project Presentation 1**

**Report On Windows Azure**

**WINDOWS AZURE:** Microsoft Azure (formerly Windows Azure) is a cloud computing service created by Microsoft for building, testing, deploying, and managing applications and services through Microsoft-managed data centers. It provides software as a service (SaaS), platform as a service (PaaS) and infrastructure as a service (IaaS) and supports many different programming languages, tools and frameworks.Azure released on February 1, 2010, as "Windows Azure" before being renamed "Microsoft Azure" on March 25, 2014.

Microsoft lists over 600 **Azure services**,of which some are covered below:

### 1.Compute

 Virtual machines, infrastructure as a service (IaaS) allowing users to launch general-purpose Microsoft Windows and Linux virtual machines, as well as preconfigured machine images for popular software packages.

 App services, platform as a service (PaaS) environment letting developers easily publish and manage websites.

### 2.Mobile services

Mobile Engagement collects real-time analytics that highlight users’ behavior. It also provides push notifications to mobile devices.HockeyApp can be used to develop, distribute, and beta-test mobile apps.

### 3.Storage services

Storage Services provides REST and SDK APIs for storing and accessing data on the cloud.

Table Service lets programs store structured text in partitioned collections of entities that are accessed by partition key and primary key. It's a NoSQL non-relational database.

### Data management

Cosmos DB is a NoSQL database service that implements a subset of the SQL SELECT statement on JSON documents.

StorSimple manages storage tasks between on-premises devices and cloud storage.

Azure Data Lake is a scalable data storage and analytic service for big-data analytics workloads that require developers to run massively parallel queries.

1. **Developer**

 Application Insights

 Azure DevOps

### Messaging

The Microsoft Azure Service Bus allows applications running on Azure premises or off premises devices to communicate with Azure. This helps to build scalable and reliable applications in a [service-oriented architecture](https://en.wikipedia.org/wiki/Service-oriented_architecture) (SOA). The Azure service bus supports four different types of communication mechanisms:

* **Event Hubs**, which provide event and telemetry ingress to the cloud at massive scale, with low latency and high reliability. For example an event hub can be used to track data from cell phones such as a GPS location coordinate in [real time](https://en.wikipedia.org/wiki/Real-time_computing)
* **Queues**, which allow one-directional communication. A sender application would send the message to the service bus queue, and a receiver would read from the queue. Though there can be multiple readers for the queue only one would process a single message.
* **Topics**, which provide one-directional communication using a subscriber pattern. It is similar to a queue however each subscriber will receive a copy of the message sent to a Topic. Optionally the subscriber can filter out messages based on specific criteria defined by the subscriber.
* **Relays**, which provide bi-directional communication. Unlike queues and topics, a relay doesn't store in-flight messages in its own memory. Instead, it just passes them on to the destination application.

### Media services

A PaaS offering that can be used for encoding, [content protection](https://en.wikipedia.org/wiki/Content_protection), streaming, or [analytics](https://en.wikipedia.org/wiki/Analytics).

CDN:

A global [content delivery network](https://en.wikipedia.org/wiki/Content_delivery_network) (CDN) for audio, video, applications, images, and other static files. It can be used to cache static assets of websites geographically closer to users to increase performance. The network can be managed by a REST based HTTP API.

Azure has 54 point of presence locations worldwide (also known as Edge locations) as of August 2018.

**AZURE SOLUTIONS:**

## -Internet of Things

## -Artificial intelligence

## -SAP on Azure

## -Blockchain

## -Hybrid cloud applications

## -DevOps

## -SharePoint on Azure

## -Dynamics on Azure

## -Big data and analytics

## -Modern data warehouse

## -Digital marketing

## -Serverless computing

## -Gaming

## -Backup and archive

## -Disaster recovery