**Microsoft Azure PaaS Training**

**Duration – 4 days**

# Course name- Microsoft Azure 70-532 Developing Microsoft Azure Solutions

**Mode of Training**- Instructor lead, Step by step Hands on labs class room training guide

**Main Session (3 days session) -** The 70-532 Developing Microsoft Azure Solutions exam is targeted towards a **Developer** audience. If you're an experienced .NET developer, then you'll likely have an easier time preparing for this exam. As a result, the exam will assume you are proficient with development tools, techniques and have experience developing scalable and resilient solutions.

**Exam Test Prep session ( 1 days)** - This Exam Prep session is designed for people experienced with programming using Azure who are interested in taking the 70-532 (Developing Microsoft Azure Solutions) exam. You can expect to review the topics covered in this exam in a fast-paced format, as well as receive some valuable test taking techniques. You will leave with an understanding of how Microsoft certification works, the key topics covered in the exams, and an exhaustive look at resources for getting ready for the exam.

Here's a high level break down of the exam objectives:

* Design and implement websites (15-20%)
* Create and manage virtual machines (20-25%)
* Design and implement cloud services (20-25%)
* Design and implement a storage strategy (20-25%)
* Manage application and network services (15-20%)

**Course Content-**

**DAY – 1**

* **Design and implement websites**
* **Deploy websites**
* Defining deployment slots
* Rolling back deployments
* Creating hosting plans
* Migrating websites between hosting plans
* Creating a website within a hosting plan
* **Configure websites**
* Defining and using app settings
* Defining and using connection strings
* Defining and using request handler mappings
* Defining and using virtual directories and virtual applications
* Configure custom domains
* Configuring certificates
* Configuring SSL bindings
* Managing websites by using the API, Windows PowerShell, and the Cross Platform Command Line Interface (xplat-cli)
* **Configure diagnostics, monitoring, and analytics**
* Retrieving diagnostics data and viewing streaming logs
* Configuring diagnostics
* Using remote debugging
* Configuring endpoint monitoring
* Configuring alerts
* Monitoring website resources
* **Implement WebJobs**
* Writing WebJobs using the SDK
* Packaging and deploying WebJobs
* Scheduling WebJobs
* **Configure websites for scale and resilience**
* Configuring auto-scale using built-in and custom schedules
* Configuring auto-scale by metric
* Changing the size of an instance
* Configuring Traffic Manager
* **Design and implement applications for scale and resilience**
* Selecting a pattern
* Implementing transient fault handling for services and responding to throttling
* Disabling Application Request Routing (ARR) affinity

**DAY – 2**

* **Create and manage virtual machines**
* **Deploy workloads on Azure virtual machines**
* Identifying supported workloads
* Creating a VM
* **Create and manage a VM image or virtual hard disk**
* Creating specialized and generalized VM images
* Uploading VHDs to Azure
* Creating disks
* Creating a VM using existing disks
* Generalizing a VM
* Creating or capturing a VM image
* Instantiating a VM instance from a VM image
* Copying images between storage accounts
* **Perform configuration management**
* VM Agent and VM extensions
* Configuring VMs with Custom Script Extension
* Using PowerShell DSC
* Configuring VMs with DSC
* Using the Puppet and Chef configuration management tools
* Enabling Puppet extensions
* Enabling Chef extensions
* Enabling remote debugging
* **Configure VM networking**
* Configuring DNS at the cloud service level
* Configuring endpoints with instance-level public IP addresses
* Configuring endpoints with reserved IP addresses
* Configuring access control lists
* Load balancing endpoints and configuring health probes
* Configuring Direct Server Return and keep-alive
* Leveraging name resolution within a cloud service
* Configuring firewall rules
* **Scale VMs**
* Scaling up and scaling down VM sizes
* Configuring availability sets
* Configuring auto-scale
* **Design and implement VM storage**
* Planning for storage capacity
* Configuring storage pools
* Configuring disk caching
* Configuring geo-replication
* Configuring shared storage using Azure File storage
* **Monitor VMs**
* Configuring monitoring and diagnostics
* Configuring endpoint monitoring
* Configuring alerts
* Monitoring metrics
* **Design and implement cloud services**
* **Design and develop a cloud service**
* Installing SDKs and emulators
* Developing a web or worker role
* Design and implement resiliency
* Developing startup tasks
* **Configure cloud services and roles**
* Configuring instance size and count
* Configuring auto-scale
* Configuring cloud service networking
* Configuring local storage
* Configuring multiple websites in a web role
* Configuring custom domains
* Configuring caching
* **Deploy a cloud service**
* Packaging a deployment
* Upgrading a deployment
* VIP swapping a deployment
* Implementing continuous delivery from Visual Studio Online
* Implementing runtime configuration changes using the management portal
* Configuring regions and affinity groups
* **Monitor and debug a cloud service**
* Configuring diagnostics
* Profiling resource consumption
* Enabling remote debugging
* Enabling and using Remote Desktop Protocol
* Debugging using IntelliTrace
* Debugging using the emulator

**DAY – 3**

* **Design and implement a storage strategy**
* **Implement Azure Storage blobs and Azure files**
* Creating a container
* Finding your account access key
* Uploading a blob
* Reading data
* Changing data
* Setting metadata on a container
* Storing data using block and page blobs
* Streaming data using blobs
* Accessing blobs securely
* Implementing an async blob copy
* Configuring the Content Delivery Network
* Designing blob hierarchies
* Configuring custom domains
* Scaling Blob storage
* Working with Azure File storage
* **Implement Azure Storage tables**
* Using basic CRUD operations
* Querying using ODATA
* Designing, managing, and scaling table partitions
* **Implement Azure storage queues**
* Adding messages to a queue
* Processing messages
* Retrieving a batch of messages
* Scaling queues
* **Manage access**
* Generating shared access signatures
* Creating stored access policies
* Regenerating storage account keys
* Configuring and using Cross-Origin Resource Sharing
* **Monitor storage**
* Configuring storage metrics
* Analyzing storage metrics
* Configuring Storage Analytics Logging
* Analyzing storage logs
* **Implement SQL databases**
* Choosing the appropriate database tier and performance level
* Configuring and performing point in time recovery
* Enabling geo-replication
* Importing and exporting data and schema (existing portal)
* Importing and exporting data and schema (Preview portal)

**DAY – 4**

* **Manage application and network services**
* **Integrate an app with Azure Active Directory**
* Creating a directory
* Managing users
* Integrating applications
* Querying directories with the Graph API
* **Configure a virtual network**
* Creating a virtual network
* Adding a VM to a virtual network
* Deploying a cloud service to a virtual network
* **Modify network configuration**
* Modifying a subnet (existing portal)
* Modifying a subnet (Preview portal)
* Moving a VM or cloud service to a new subnet
* Exporting network configuration
* Importing network configuration
* **Design and implement a communication strategy**
* Creating a Service Bus namespace
* Selecting a protocol for messaging
* Using Service Bus relays
* Using Service Bus queues
* Using Service Bus topics and subscriptions
* Using event hubs
* Using notification hubs
* **Scale and monitor communication**
* Choosing a pricing tier
* Scaling Service Bus features
* Monitoring Service Bus features
* **Implement caching**
* Implementing Redis Cache
* Implementing Azure Managed Cache Service