Azure Learning Map

`Cloud Comparisons	https://docs.microsoft.com/en-us/azure/architecture/aws-professional/services https://endjincdn.blob.core.windows.net/assets/endjin-cloud-platform-comparison.pdf http://8kmiles.com/azure-virtual-network-vs-aws-virtual-private-cloud/

Tools to Create Azure Resources

Portal	https://portal.azure.com
Cli	https://docs.microsoft.com/en-us/cli/azure/install-azure-cli
Cloud Shell	
PowerShell	
SDK	https://azure.microsoft.com/en-in/downloads/
Storage Explorer	http://azurestorageexplorer.codeplex.com/
Resource Explorer	https://resources.azure.com

IAAS

VM	https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-manage-vm
Network	https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-virtual-network
cloud-init	https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-automate-vm-deployment
Availability Set	https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-availability-sets
Scale Set	https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-create-vmss https://docs.microsoft.com/en-us/azure/monitoring-and-diagnostics/monitoring-overview-autoscale https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/virtual-machine-scale-sets-autoscale-overview
Vertical Scale	https://docs.microsoft.com/en-us/azure/virtual-machines/linux/vertical-scaling-automation?toc=%2fazure%2fvirtual-machines%2flinux%2ftoc.json
disk	https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-manage-disks

Load Balancer	**External** https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-load-balancer **doc** https://opbuildstorageprod.blob.core.windows.net/output-pdf-files/en-us/Azure.azure-documents/live/load-balancer.pdf **internal** **https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-get-started-ilb-arm-cli**
Case Study	https://docs.microsoft.com/en-us/azure/virtual-machines/linux/create-cli-complete https://docs.microsoft.com/en-us/azure/virtual-machines/linux/quick-create-powershell
Azure Low priority VM (preview)	http://blog.spotinst.com/2017/05/14/microsoft-azure-low-priority-vms/
IP address	https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-ip-addresses-overview-arm
Availability Zones	https://social.technet.microsoft.com/wiki/contents/articles/51828.azure-vms-availability-sets-and-availability-zones.aspx?Redirected=true

Containers

Container Service	https://docs.microsoft.com/en-us/azure/aks/kubernetes-walkthrough Microsoft's Azure Container Service (ACS) is now Azure Kubernetes Services (AKS) When creating a service, you have the option of automatically creating a cloud network load balancer. This provides an externally-accessible IP address that sends traffic to the correct port on your cluster nodes *provided your cluster runs in a supported environment and is configured with the correct cloud load balancer provider package*. Note: If your account doesn't have the Azure AD and subscription permissions to create a service principal, the command generates an error similar to `Insufficient privileges to complete the operation.`
Serverless containers	https://docs.microsoft.com/en-us/azure/container-instances/container-instances-quickstart

data platform

Blob	https://docs.microsoft.com/en-us/azure/storage/blobs/storage-quickstart-blobs-cli https://azure.microsoft.com/en-in/documentation/articles/storage-dotnet-how-to-use-blobs/ Block (file upload) vs page- IAAS (random read,write) blob, append blob (Eg. logging, auditing) https://www.red-gate.com/simple-talk/cloud/cloud-data/working-azure-blob-storage-service/
SnapShot	

File	smb protocol https://azure.microsoft.com/en-in/documentation/articles/storage-dotnet-how-to-use-files/
Azure Storage	**classic** https://docs.microsoft.com/en-us/azure/storage/storage-powershell-guide-full RM https://artofshell.com/2016/05/automate-azure-blob-storage-powershell/ java : https://azure.microsoft.com/en-us/documentation/articles/java-download-azure-sdk/
throughput	https://docs.microsoft.com/en-us/azure/storage/storage-scalability-targets check list https://docs.microsoft.com/en-us/azure/storage/storage-performance-checklist https://docs.microsoft.com/en-us/rest/api/storageservices/deciding-when-to-use-azure-blobs--azure-files--or-azure-data-disks shared disk https://stackoverflow.com/questions/19620645/shared-drive-between-azure-virtual-machines
Table	https://azure.microsoft.com/en-in/documentation/articles/storage-dotnet-how-to-use-tables/ https://github.com/azure/azure-storage-java
Sql Azure	https://azure.microsoft.com/en-in/documentation/articles/sql-database-get-started/

Cosmos	https://docs.microsoft.com/en-us/azure/cosmos-db/multi-region-writers
	Throughput: Azure Cosmos DB Table API gives highly scalable throughput which is backed with SLAs and its upper bound support is up to >10 million operations per table. On the other hand, variable throughput model in Azure Storage Table has scalability limit 20,000 per operations.
	easy to create a geographic performance by having Cosmos DB replicate data to another region. You just indicate the region and data are replicated in real-time. And better yet, you can keep communicating with your app as you did before and Cosmos DB will figure out which database in which region is the most performant for you. Keep in mind though, that replicas are always read-only replicas, and you only have one writable node.
	performance.
	takes care of indexes automatically. There is no need for you to tune your database, this happens automatically. On top of this, performance is part of the SLA, where Microsoft promises a maximum of 10ms latency for reading operations and 15ms latency for write operations.
	different APIs to talk to it. You can use the original (SQL-like) DocumentDB query language, JavaScript, Gremlin, MongoDB and Table Storage.
	Consistency: Five well-defined consistency levels are available in ACDTA which can turn on and off automatically. Consistency is strong only in primary region and eventual in other regions when it comes to AST.
	https://docs.microsoft.com/en-us/azure/cosmos-db/consistency-levels
	SLAs: 99.99% availability is given on AVDTA while you can increase availability by adding more regions. The same level of SLAs availability is given on Azure Storage Table.
Cosmos	https://scalegrid.io/blog/cassandra-vs-mongodb/
Document	https://russellyoung.net/2016/06/18/managing-documentdb-with-powershell/ https://docs.microsoft.com/en-us/azure/documentdb/documentdb-manage-account-with-powershell https://docs.microsoft.com/en-in/azure/documentdb/documentdb-get-started
Graph	https://blogs.msdn.microsoft.com/tsmatsuz/2017/07/04/azure-cosmos-db-gremlin-graph-tutorial/ https://docs.microsoft.com/en-us/azure/cosmos-db/create-graph-gremlin-console https://tinkerpop.apache.org/docs/current/reference/#gremlin-console
Azure Batch	https://docs.microsoft.com/en-us/azure/batch/batch-account-create-portal https://docs.microsoft.com/en-us/azure/batch/batch-dotnet-get-started
MySQL (preview)	

Postgres (Preview)	
	# Analytical data
Azure Data Lake Store	https://docs.microsoft.com/en-us/azure/data-lake-store/data-lake-store-get-started-cli-2.0 Data Lake vs Blob https://www.codit.eu/blog?tag=big%20data pricing https://azure.microsoft.com/en-in/pricing/details/data-lake-store/ https://azure.microsoft.com/en-us/resources/videos/data-lake-billing-model/ compari
Azure Data Lake Analytics	https://docs.microsoft.com/en-us/azure/data-lake-analytics/data-lake-analytics-get-started-cli2 https://docs.microsoft.com/en-us/azure/data-lake-analytics/data-lake-analytics-get-started-portal USQL https://docs.microsoft.com/en-us/azure/data-lake-analytics/data-lake-analytics-u-sql-get-started https://msdn.microsoft.com/en-us/library/mt706196.aspx https://raw.githubusercontent.com/Azure/Azure-DataFactory/master/Samples/U-SQL%20Sample%20Input%20File/SearchLog.tsv U-SQL vs Spark SQL https://stackoverflow.com/questions/35575080/azure-spark-sql-vs-u-sql case study https://docs.microsoft.com/en-us/azure/machine-learning/machine-learning-data-science-process-data-lake-walkthrough

Azure Data Factory	https://docs.microsoft.com/en-us/azure/data-factory/quickstart-create-data-factory-powershell https://docs.microsoft.com/en-us/azure/data-factory/data-factory-azure-blob-connector https://docs.microsoft.com/en-us/azure/data-factory/data-factory-copy-activity-tutorial-using-azure-portal https://docs.microsoft.com/en-us/azure/data-factory/data-factory-build-your-first-pipeline https://docs.microsoft.com/en-us/azure/data-factory/data-factory-build-your-first-pipeline-using-editor https://docs.microsoft.com/en-us/azure/data-factory/data-factory-copy-activity-tutorial-using-azure-portal http://www.winwire.com/wp-content/uploads/2017/02/Step-by-Step-Azure-Data-Factory-Tutorials-1.pdf Data Factory vs SSIS http://www.radacad.com/wp-content/uploads/2016/05/SqlBits2016_RezaRad_ADFvsSSIS.pdf http://www.jamesserra.com/archive/2017/03/azure-data-factory-and-ssis-compared/
Azure SQL Data Warehouse	https://docs.microsoft.com/en-us/azure/sql-data-warehouse/sql-data-warehouse-get-started-tutorial loading data https://docs.microsoft.com/en-us/azure/sql-data-warehouse/sql-data-warehouse-overview-load https://docs.microsoft.com/en-us/azure/sql-data-warehouse/sql-data-warehouse-load-with-data-factory MPP vs Map Reduce https://www.flydata.com/blog/introduction-to-massively-parallel-processing/ Sql server vs warehouse https://key2consulting.com/comparison-of-azure-sql-database-to-azure-sql-data-warehouse/ Lake vs warehouse https://www.blue-granite.com/blog/bid/402596/top-five-differences-between-data-lakes-and-data-warehouses https://azure.microsoft.com/en-in/resources/videos/build-2016-azure-data-lake-and-azure-data-warehouse-applying-modern-practices-to-your-app/
Machine Learning	https://azure.microsoft.com/en-in/documentation/articles/machine-learning-create-experiment/ https://docs.microsoft.com/en-in/azure/machine-learning/machine-learning-publish-a-machine-learning-web-service PROCESS BLOB DATA https://docs.microsoft.com/en-us/azure/machine-learning/machine-learning-data-science-process-data-blob

HDInsight (Spark)	https://azure.microsoft.com/en-in/documentation/articles/hdinsight-apache-spark-jupyter-spark-sql/
Azure Data Bricks	https://docs.azuredatabricks.net/getting-started/quick-start.html https://docs.azuredatabricks.net/getting-started/spark/machine-learning.html#ml-notebook

Streaming data

Event Hub	https://azure.microsoft.com/en-in/documentation/articles/event-hubs-csharp-ephcs-getstarted/ https://docs.microsoft.com/en-us/azure/event-hubs/event-hubs-dotnet-standard-getstarted-receive-eph csv: https://stackoverflow.com/questions/30868467/how-to-send-data-as-csv-on-eventhub-for-azure-stream-analytics/30870640 Java: works with only java 8
Kafka (preview)	

Stream Analytics	https://www.codit.eu/blog/2015/01/azure-stream-analytics-getting-started/
	
	https://docs.microsoft.com/en-us/azure/stream-analytics/stream-analytics-real-time-fraud-detection
	
	SELECT
	  System.TimeStamp AS WindowEnd,
	  Name,
	  COUNT(*)
	INTO
	  output1
	FROM
	  input1
	  where Age > 25
	GROUP BY Name
	  , TUMBLINGWINDOW(minute, 1)

Azure HDInsight (Storm, Spark streaming)	

Messaging

Queue	https://azure.microsoft.com/en-in/documentation/articles/storage-dotnet-how-to-use-queues/
Service Bus Queue	https://gist.github.com/rberrelleza/2221610 https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-manage-with-ps https://azure.microsoft.com/en-in/documentation/articles/service-bus-dotnet-get-started-with-queues/
Service Bus Topic	https://azure.microsoft.com/en-in/documentation/articles/service-bus-dotnet-how-to-use-topics-subscriptions/

Notification Hub	
Event Grid	https://docs.microsoft.com/en-us/azure/event-grid/custom-event-quickstart https://azurebiztalkread.wordpress.com/2018/05/19/azure-service-bus-topic-vs-azure-event-grid-topic/
Patterns	Command Message(Queue) http://www.enterpriseintegrationpatterns.com/patterns/messaging/CommandMessage.html Request-Reply (Queue) http://www.enterpriseintegrationpatterns.com/patterns/messaging/RequestReply.html Event Message (Queue) http://www.enterpriseintegrationpatterns.com/patterns/messaging/EventMessage.html

Computation

Web App	http://almirvuk.blogspot.in/2015/12/how-to-upload-web-site-to-azure-with.html Auto Scale: https://blogs.msdn.microsoft.com/devschool/2015/05/24/azure-how-to-auto-scale-your-web-apps-web-sites/ **deployment slots :** https://azure.microsoft.com/en-in/documentation/articles/web-sites-staged-publishing/ After a swap, the slot with previously staged app now has the previous production app. If the changes swapped into the production slot are not as you expected, you can perform the same swap immediately to get your "last known good site" back. **Scale Up:** https://azure.microsoft.com/en-in/documentation/articles/web-sites-scale/ Load Test https://www.visualstudio.com/en-us/docs/test/performance-testing/app-service-web-app-performance-test
CDN Cache	https://azure.microsoft.com/en-us/documentation/articles/cdn-create-a-storage-account-with-cdn/ http://<StorageAcountLabel>.blob.core.windows.net/<mycontainer>/myblob http://<endpointname>.azureedge.net/<mycontainer>/myblob
Redis Cache	https://azure.microsoft.com/en-in/documentation/articles/cache-dotnet-how-to-use-azure-redis-cache/
Web Job	https://azure.microsoft.com/en-in/documentation/articles/web-sites-create-web-jobs/
Function	https://docs.microsoft.com/en-us/azure/azure-functions/functions-create-storage-blob-triggered-function https://docs.microsoft.com/en-us/azure/azure-functions/functions-bindings-event-hubs http://www.hanselman.com/blog/WhatIsServerlessComputingExploringAzureFunctions.aspx http://flgmwt.github.io/azure/azure-functions/c-sharp/2016/04/04/azure-fns-with-ci.html https://www.codeproject.com/Articles/1110663/Azure-Functions-Tutorial-SQL-Database

Service Fabric	replacing cloud service
	install :
	https://blog.geist.no/azure-service-fabric-introduction-getting-it-running/
	https://azure.microsoft.com/en-us/documentation/articles/service-fabric-get-started/
	https://azure.microsoft.com/en-in/documentation/articles/service-fabric-reliable-services-quick-start/
	https://rahulrai.in/post/hands-on-with-azure-service-fabric-reliable-services/
	Guest Container
	Services packaged into Windows or Linux containers managed by Docker.Guest
	executables
	an arbitrary executable, written in any language, existing app, do not benefit from the full set of features the platform offers, such as custom health and load reporting, service endpoint registration, and stateful compute.
	Reliable Services
	Reliable Services is a light-weight framework for writing services that integrate with the Service Fabric platform and benefit from the full set of platform features.
	Reliable Actors
	https://mikhail.io/2016/01/fire-and-forget-in-service-fabric-actors/
	https://docs.microsoft.com/en-us/azure/service-fabric/service-fabric-reliable-actors-get-started

Facade

Application GateWay	The Application Gateway uses Azure Load Balancer at the transport level and then applies the routing rules to support layer-7 (HTTP) load balancing.
	features
	https://docs.microsoft.com/en-us/azure/application-gateway/application-gateway-introduction
	getting started
	https://docs.microsoft.com/en-us/azure/application-gateway/application-gateway-create-gateway-portal
	with ilb
	https://docs.microsoft.com/en-us/azure/application-gateway/application-gateway-ilb-arm
	Ubuntu VM Scale Set with Application Gateway Integration
	https://github.com/Azure/azure-quickstart-templates/tree/master/201-vmss-ubuntu-app-gateway
	content based routing
	https://vincentlauzon.com/2017/05/08/url-routing-with-azure-application-gateway/
Relay	https://azure.microsoft.com/en-in/documentation/articles/service-bus-relay-tutorial/
Traffic Manager	https://blogs.technet.microsoft.com/canitpro/2015/02/09/step-by-step-managing-traffic-for-workloads-in-azure/

Api Management	get started https://docs.microsoft.com/en-us/azure/api-management/api-management-get-started limit https://docs.microsoft.com/en-us/azure/api-management/api-management-howto-product-with-rules cache https://docs.microsoft.com/en-us/azure/api-management/api-management-howto-cache vnet https://docs.microsoft.com/en-us/azure/api-management/api-management-using-with-vnet azure ad https://docs.microsoft.com/en-us/azure/api-management/api-management-howto-protect-backend-with-aad https://docs.microsoft.com/en-us/azure/api-management/api-management-howto-aad oauth https://docs.microsoft.com/en-us/azure/api-management/api-management-howto-oauth2

Security

	https://docs.microsoft.com/en-us/azure/security/azure-security-services-technologies
role based access (RBAC)	https://docs.microsoft.com/en-us/azure/active-directory/role-based-access-control-configure https://docs.microsoft.com/en-us/azure/active-directory/role-based-access-built-in-roles
User Principal	https://docs.microsoft.com/en-us/azure/active-directory/fundamentals/add-users-azure-active-directory
Managed Service Identity	https://docs.microsoft.com/en-us/azure/app-service/app-service-managed-service-identity https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-storage https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-storage-sas https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-nonaad • A **system-assigned identity** is tied to your application and is deleted if your app is deleted. An app can only have one system-assigned identity. System-assigned identity support is generally available for Windows apps. • A **user-assigned identity** is a standalone Azure resource which can be assigned to your app. An app can have multiple user-assigned identities. User-assigned identity support is in preview for all app types. https://joonasw.net/view/azure-ad-managed-service-identity https://blog.kloud.com.au/2018/04/13/demystifying-managed-service-identities-on-azure/

Service Principal	https://docs.microsoft.com/en-us/cli/azure/create-an-azure-service-principal-azure-cli?view=azure-cli-latest https://markheath.net/post/create-service-principal-azure-cli https://docs.microsoft.com/en-us/azure/active-directory/develop/howto-create-service-principal-portal azure ad app create —display-name "climanager" --homepage "http://localhost/climanager" --identifier-uris "http://localhost/climanager" --password "spielpassword" az ad sp create-for-rbac --name "jack" --password "spielpassword" https://docs.microsoft.com/en-us/cli/azure/create-an-azure-service-principal-azure-cli
Shared Access Signature	https://buildazure.com/2017/05/23/azure-cli-2-0-generate-sas-token-for-blob-in-azure-storage/ https://azure.microsoft.com/en-in/documentation/articles/storage-dotnet-shared-access-signature-part-2/ GetBlobSasUriWithPolicy CloudBlockBlob cloudBlockBlob = new CloudBlockBlob("http://127.0.0.1:.../temp/sastest.txt.."); cloudBlockBlob.Delete(); java : https://blog.persistent.com/index.php/2012/06/22/windows-azure-and-java-working-with-blob-storage/
Storage Service Encryption (SSE)	https://docs.microsoft.com/en-us/azure/storage/storage-service-encryption https://docs.microsoft.com/en-us/azure/storage/common/storage-service-encryption-customer-managed-keys?toc=%2fazure%2fstorage%2fblobs%2ftoc.json
Azure Disk Encryption (ADE)	https://docs.microsoft.com/en-us/azure/virtual-machines/scripts/virtual-machines-linux-cli-sample-encrypt-vm
Security Center	https://docs.microsoft.com/en-us/azure/security-center/security-center-intro https://docs.microsoft.com/en-us/azure/security-center/security-center-get-started https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-azure-security
key vault	https://docs.microsoft.com/en-us/azure/key-vault/key-vault-manage-with-cli https://docs.microsoft.com/en-us/azure/key-vault/key-vault-get-started

Client Side Encryption	https://docs.microsoft.com/en-us/azure/storage/storage-encrypt-decrypt-blobs-key-vault
best practices	https://docs.microsoft.com/en-us/azure/storage/storage-security-guide
web app - service environment	https://docs.microsoft.com/en-us/azure/app-service-web/app-service-app-service-environment-intro
Network Security	list of features https://docs.microsoft.com/en-us/azure/virtual-network/resource-groups-networking https://opbuildstorageprod.blob.core.windows.net/output-pdf-files/en-us/Azure.azure-documents/live/virtual-network.pdf UDR are applied to traffic leaving subnet from any resource (eg.nic attached to vm). you cannot create routes to specify how traffic enters a subnet. https://campus.barracuda.com/product/nextgenfirewallf/article/NGF62/AzureARMUDRWebPortal/ https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-create-udr-arm-ps https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-udr-overview practice https://docs.microsoft.com/en-us/azure/security/azure-security-network-security-best-practices https://docs.microsoft.com/en-us/azure/best-practices-network-security?toc=%2fazure%2fvirtual-network%2ftoc.json https://blogs.msdn.microsoft.com/igorpag/2016/05/14/azure-network-security-groups-nsg-best-practices-and-lessons-learned/ **case Study** https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-vnet-plan-design-arm?toc=%2fazure%2fnetworking%2ftoc.json

VPN	**point to site** https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-point-to-site-resource-manager-portal https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-point-to-site-rm-ps **site to site** https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-site-to-site-resource-manager-cli http://www.rebeladmin.com/2016/12/step-step-guide-configure-site-site-vpn-gateway-connection-azure-premises-network/ https://blogs.technet.microsoft.com/canitpro/2016/01/11/step-by-step-connect-your-aws-and-azure-environments-with-a-vpn-tunnel/ **site to multisite** **vnet to vnet** https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-vnet-vnet-cli **express route** https://docs.microsoft.com/en-us/azure/expressroute/expressroute-connectivity-models When you create a gateway subnet, it must be named 'GatewaySubnet'. If you name it something else, you create a subnet, but Azure won't treat it as a gateway subnet.

Management

Template	**Create** https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-manager-create-first-template **deploy** https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-manager-quickstart-deploy **export** https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-manager-export-template-cli **linked** https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-linked-templates **copy** https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-create-multiple **dependancy** https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-define-dependencies **best practices** http://utkarshcloudnet.blogspot.in/2016/05/Azure-Rerource-Manager-Template-ARM-Azure-best-practices-tips.html **deployment from portal** https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-template-deploy-portal

Monitoring	https://medium.com/devopslinks/the-state-of-monitoring-in-azure-42cc0174c785 https://docs.microsoft.com/en-us/azure/monitoring-and-diagnostics/monitoring-get-started https://try.newrelic.com/rs/newrelic/images/Azure_Getting-Started-Guide_FINAL.pdf https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-monitoring diagnostic logs https://docs.microsoft.com/en-us/azure/monitoring-and-diagnostics/monitoring-overview-of-diagnostic-logs activity logs https://docs.microsoft.com/en-us/azure/monitoring-and-diagnostics/monitoring-overview-activity-logs
Azure Automation DSC	https://docs.microsoft.com/en-us/azure/automation/automation-dsc-getting-started logs https://docs.microsoft.com/en-us/azure/automation/automation-runbook-output-and-messages
Chef DSC	https://www.opsgility.com/blog/2016/01/19/using-chef-on-azure/ https://tryazuremarketplace.com/pdfs/Chef_on_Azure.pdf https://vishwanathsrikanth.wordpress.com/2015/01/11/desired-state-configuration-using-chef-knife-on-azure-part-2/
Automation	https://codehollow.com/2016/07/automatically-shutdown-virtual-machines-azure/ http://www.nullfactory.net/2016/11/scheduling-the-uptime-of-an-azure-virtual-machine/ http://theithollow.com/2016/09/19/get-started-azure-automation/ logs https://msdn.microsoft.com/en-us/powershell/dsc/logresource https://msdn.microsoft.com/en-us/powershell/dsc/debugresource
CI/CD	https://docs.microsoft.com/en-us/azure/jenkins/java-deploy-webapp-tutorial https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-jenkins-github-docker-cicd https://docs.microsoft.com/en-us/azure/container-service/container-service-kubernetes-jenkins https://docs.microsoft.com/en-us/azure/virtual-machines/windows/chef-automation http://carolynvanslyck.com/blog/2013/02/setting-up-jenkins-on-azure/ https://www.visualstudio.com/en-us/docs/build/get-started/aspnet-4-ci-cd-azure-automatic

Backup and Recovery	**Backup Vault (classic)** **Recovery Service (RM)** **Intro** **https://docs.microsoft.com/en-us/azure/backup/backup-azure-vms-introduction** **backup** https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-backup- **Recovery service** https://docs.microsoft.com/en-us/azure/backup/backup-azure-vms-first-look-arm **disaster recovery** https://docs.microsoft.com/en-us/azure/storage/storage-redundancy
Pricing	https://stackify.com/lower-azure-pricing-optimize-costs/ https://azure.microsoft.com/en-in/pricing/ https://azure.microsoft.com/en-in/pricing/calculator/
Visual Studio Team Service	http://www.c-sharpcorner.com/article/getting-started-with-visual-studio-team-services/ https://mitra.computa.asia/article/msdn-getting-started-using-visual-studio-team-services-vsts-source-control

A Key Vault is dedicated to one specific region and thus you will not be able to consult data from within a different region. All the secrets and keys will be stored in physical HSMs in that specific region, **the data will never leave that geographic region**.This limitation can cause some headaches when you are planning for disaster recovery.

If your data size is > 10 TB and you want to move it to Azure, we recommend that you use our disk shipping service

If you have a small amount of data you can use bcp to load directly into Azure SQL Data Warehouse.

Use AZCopy (recommended for < 10 TB data)