#### **About Rahul Joshi:**

#### 22 Years exp, 15th year as Microsoft certified trainer & AWS Authorized instructor

- Helping customers add Application Modernization capabilities by Replatforming ASP.NET sites to Azure App Services, Rearchitecting of monolithic
  applications to microservices or containers.
- Reengineering of legacy applications to cloud-native apps with improved user experience.
- Designing cloud strategy, solution design, cloud adoption frameworks, app modernization and cloud migration.
- Develop Proof of Concept by working closely with Microsoft and Amazon Web Services and design frameworks for cloud adoption and Enterprise Architecture, Cloud Infrastructure/ Migrations.
- Responsible for Migration to Microsoft Azure (Brownfield and Greenfield Projects). In-Premise To Cloud Migration and Storage Migration.
- Perform Application Readiness Assessment, an investigation at application level in preparation for cloud deployment, to look at issues that will either block or detract from the application's abilities to fully utilize the cloud, then act on this report to ensure cloud readiness.
- · Designing applications for scalability
- Migrating to PaaS & Container Architecture, Migrating from Traditional .NET Application Web Apps

### "Executed more than 580+ Trainings engagements on Microsoft Azure for more than 220+ clients"

#### Google Drive Link:

https://drive.google.com/drive/folders/181ebdbVLk5xpLu5ArR BFWeM9b3N2x3?usp=sharing

#### Recording

Please Note, Post Session Completes Zoom Recording Link will be shared on WhatsApp, Download it from Zoom Directly. It will not be uploaded on Google Drive

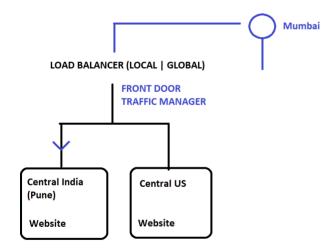
#### One Note Documentation:

https://1drv.ms/u/s!Aht-oGFG3XwWgagy2dnZHuXQmk0wkg

#### **Cloud Benefit**

#### **Customer latency capabilities**

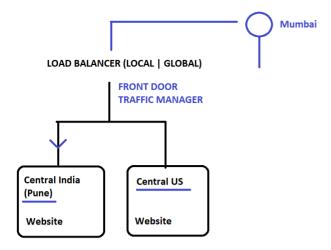
Cloud has this unique feature or benefit, that it understands Customer's latency capabilities. I should be taken to the datacenter closet to me.



## Agility

What is Agility in Cloud?

Agility = Agile = Quick = How fast can you take the solution to the market



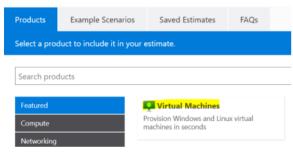
To implement the above solution in Azure, it will take a maximum of 12 minutes, this is very scary and people get surprised, that is actually called "Agility"

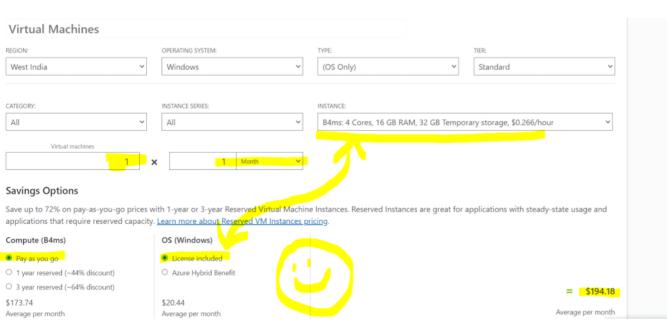
### Predictive cost considerations

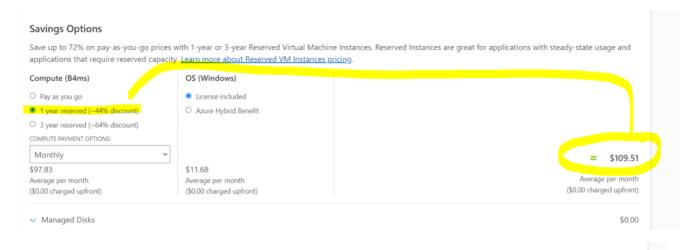
Cloud always tells you, how much cost will be applied, per hour, per day cost is transparent. The cost is typically an estimate and can have lower or higher range, but does not surpass the actual cost given by Microsoft.

#### Cost Calculator

https://azure.microsoft.com/en-in/pricing/calculator/







#### **Savings Options**

Save up to 72% on pay-as-you-go prices with 1-year or 3-year Reserved Virtual Machine Instances. Reserved Instances are great for applications with steady-state usage and applications that require reserved capacity. Learn more about Reserved VM Instances pricing.



### Disaster recovery

Disaster = outage = downtime = big problem = operations stopped

How can you recover from the problem, is Disaster Recovery, have you taken care, precaution is better than cure

## Disaster Recovery = WHAT IF



## Security - AZ-500 Azure Security

Security = Access Control

Security = Permission Management

Security = Preventing Attacks

Security = Firewall

Security = Protection

Security = Auditing

#### Services

Virtual Machine = Security Storage Account = Security Database = Security

Analytics Service = Security

Networking = Security

# **Security = Shared Responsibility**

#### IAAS vs PAAS vs SAAS

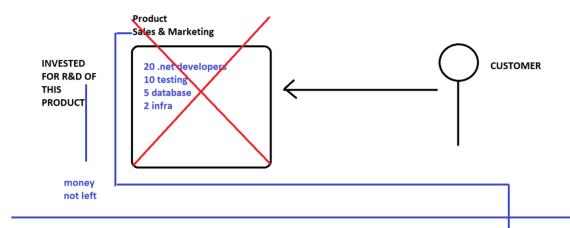
IAAS - INFRASTRATURE AS A SERVICE (HARDWARE)
Microsoft - CPU | Memory | Disk | Network

PAAS - PLATFORM AS A SERVICE

Hardware + Operating System + TOOLS (.NET, JAVA)

SAAS - SOFTWARE AS A SERVICE

NO HARDWARE - NO OPERATING - JUST BROWSER - LOGIN BROWER - USE SOFTWARE AS SERVICE EXAMPLE, OFFICE 365, SALESFORCE, GOOGLE SUITE, GOOGLE DOCS,

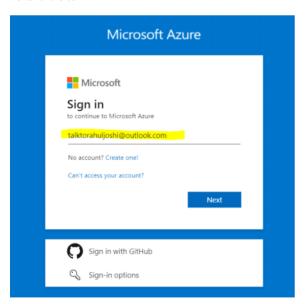


# **SAAS - SOFTWARE AS A SERVICE**

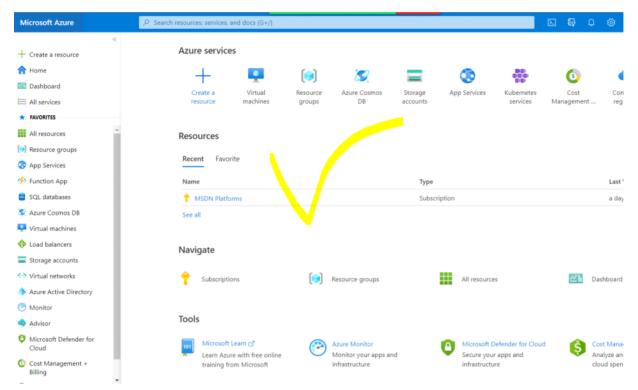
LICENCE OF SALESFORCE

## HANDS-ON STARTS FROM NOW, NO MORE PPTs

Which Portal or which website can we use to work with Microsoft Azure? **Portal.azure.com** 







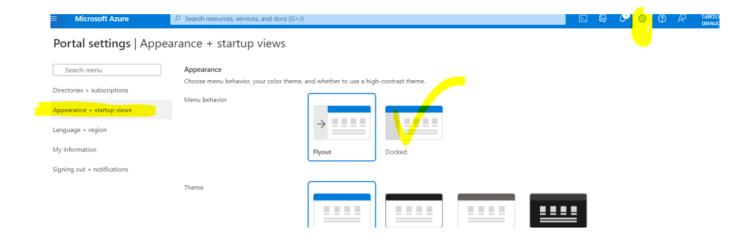
### What are the different ways in which we can configure, work within Azure?

- 1. Microsoft Azure Portal (GUI Many people prefer this way)
- 2. Azure Powershell Powershell is a scripting language of Microsoft Used only on Microsoft Windows Infrastructure. You can create a PS1 Script file and do Automation using Powershell.
- 3. Azure CLI Command Line Interface Work on Windows & Linux, Commands are very simple, easy

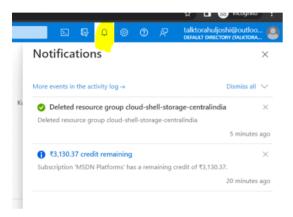
### The biggest advantage of using Script is "Consistent", Script once written will always give sane result.

- 4. Software SDK Software Development Kit, Using .NET, Using Java you can create / update Azure Resources
- 5. Templates ARM Templates, Ansible, CHEF, Puppet, Terraform Software's can also help create Azure Infrastructure

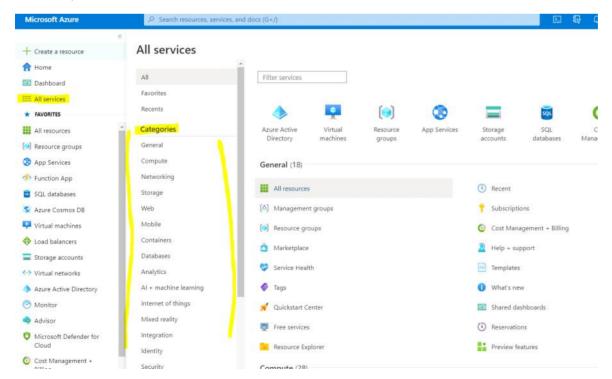
### **Explore Azure Portal**

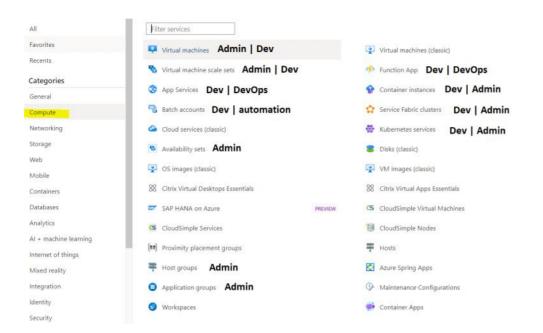


#### All status Updates, come on Bell ICON

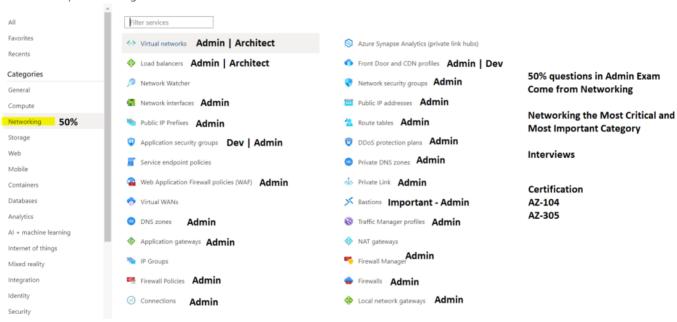


### I want to see, all the services in Azure?





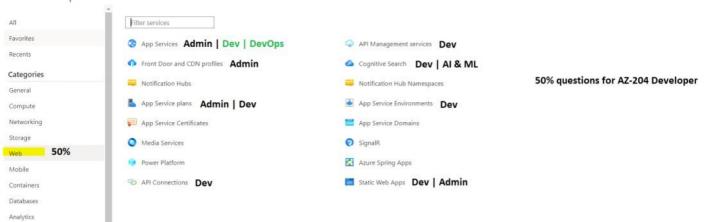
### All services | Networking



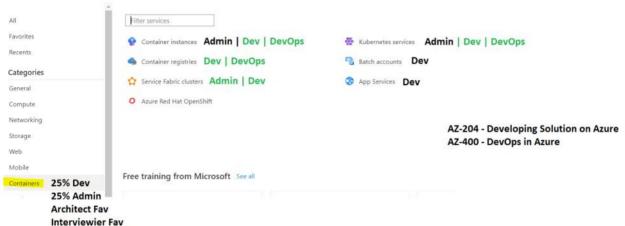
### All services | Storage



### All services | Web



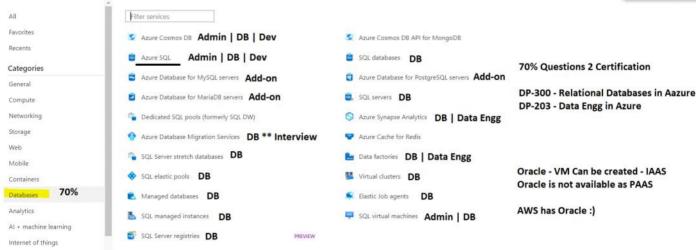
## All services | Containers

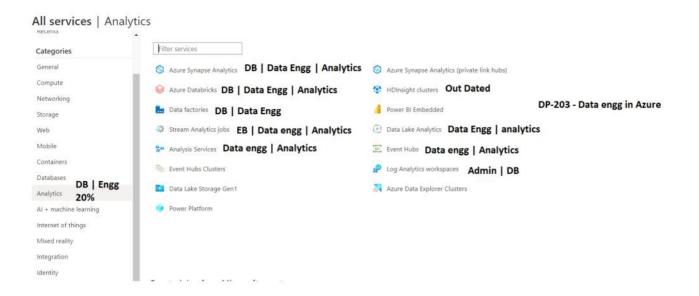


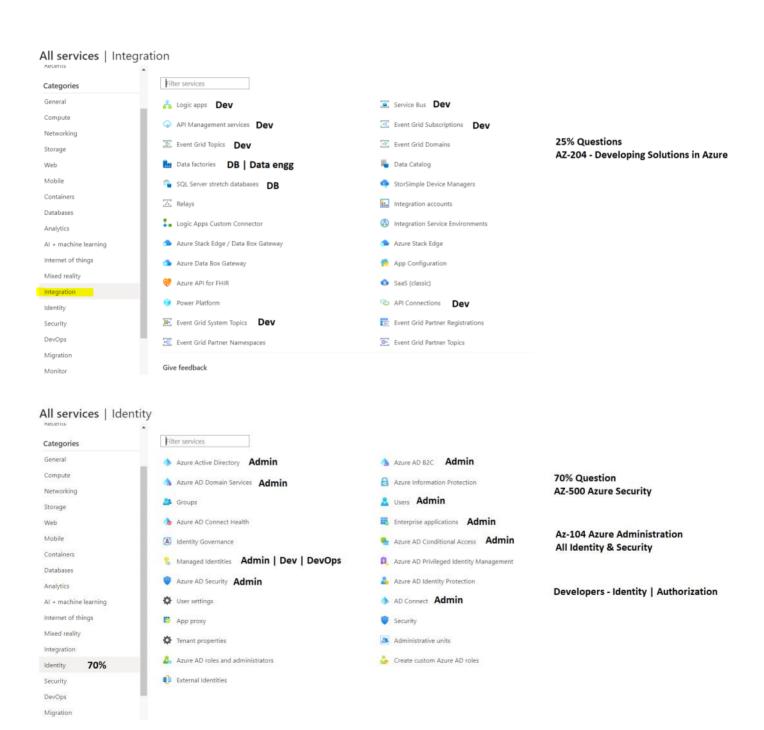


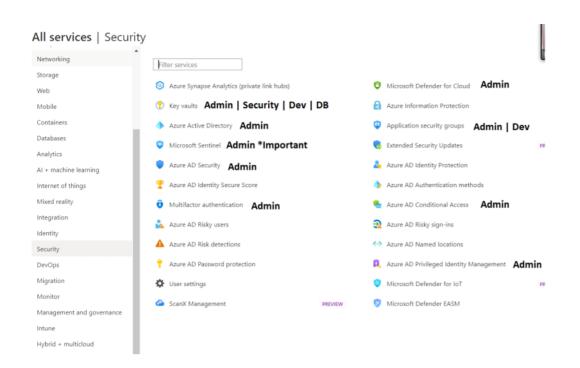
Mixed reality





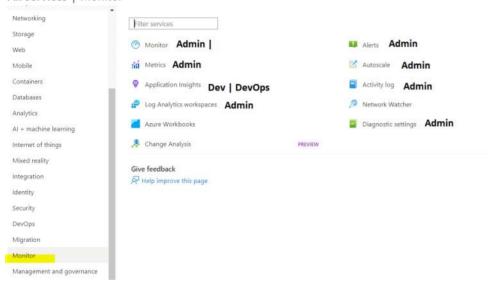




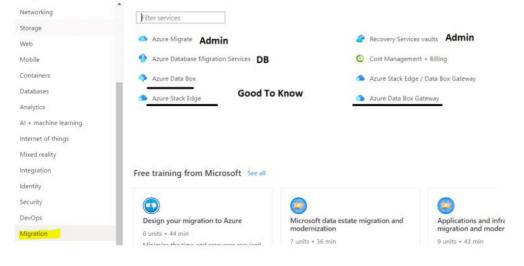


AZ-104 Admin Az-305 Architect AZ-500 Security

### All services | Monitor



# All services | Migration



#### Case Study:

The Customer is very new to Azure Platform and not aware of any services from the Azure Portfolio. The customer wants to create a server which will host their Web Site and so they need a Windows Server 2016 Datacentre Environment. Currently the customer uses "Physical Server" in their environment and is planning to move to Cloud. The customer is worried on the "Availability", "Security", "Performance" and also Cost. So, the customer wants to know from Azure Masters, on how this environment can be setup.

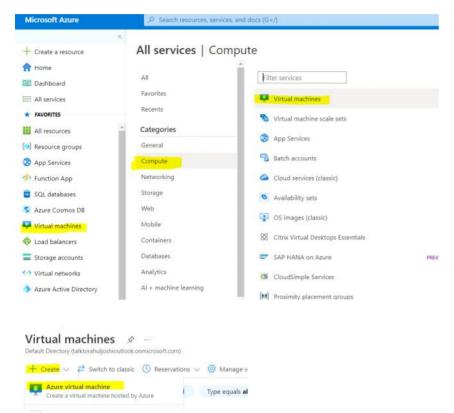
STAR = S - Situation, T - Task, A - Action and R - Results

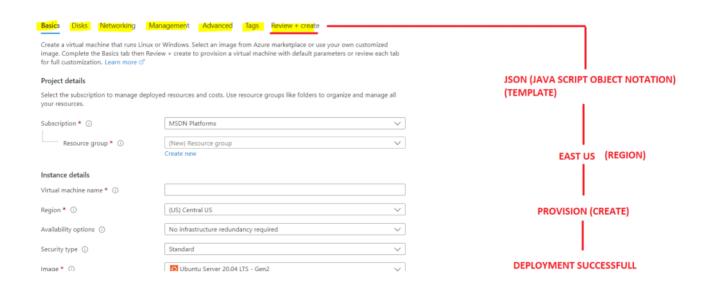
### Situation = Case Study

#### Task:

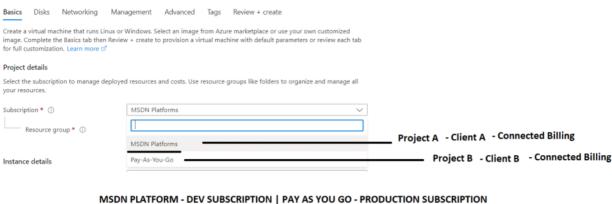
1. Create Virtual Machine

#### Action:





#### Create a virtual machine

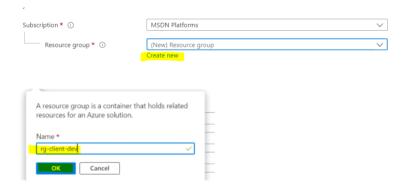


MOVE

Resource Group - Like Folder, In Folder you can keep variety of files, same way in one Resource Group you can have multiple resources

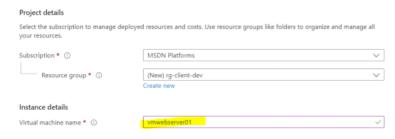
#### AZ-900 EXAM

- 1. In Azure You can many resource group, for every project you can have separate resource group, for every team (Dev, Staging, Test, Prod Team) you can have separate Resource Group, Each Client can have their own resource group
- 2. In a Resource Group, you create resources used by that project, that customer, that team
- 3. One Resource can be part of only 1 Resource Group, 1 Virtual Machine can be part of 1 Resource Group
- 4. You can also Script a Resource Group and Template can be created, the same template can be deployed in different subscriptions.
- 5. Resource Group can be LOCKED, SO THAT YOU DO NOT DELETE IT BY MISTAKE
- 6. Resource Group can be marked "READ-ONLY" so that after project completes, no one can change anything in the Resource Group
- 7. Every Resource Group has Region, why? Because Resource Group is basically a JSON File, this file has be stored somewhere, that is why Region is used in RG, If my RG is in East Us, my Resources under the RG can be in different regions also, VM - Japan East, Storage - Central India.



### Projects us the below document:

https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/ready/azure-best-practices/resource-naming



#### **Azure Limits:**

All People - Developer, Dev-Ops, Admin, DB, Architect - Customer ask this

https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/azure-subscription-service-limits

## **Subscription limits**

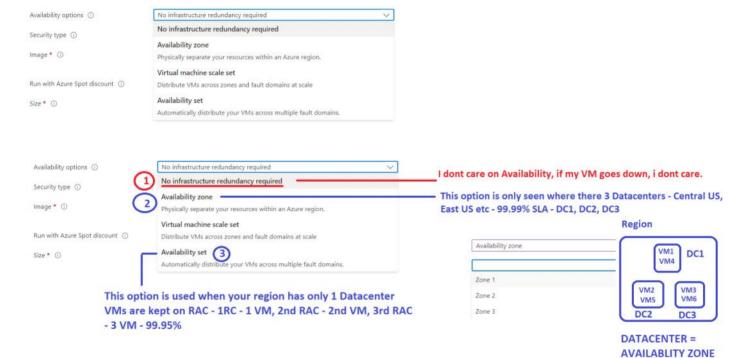
The following limits apply when you use Azure Resource Manager and Azure resource groups.

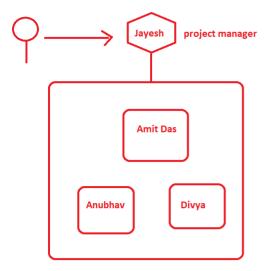


#### **Preference for Training**

- 1. East US
- 2. West US
- 3. Central US
- 4. Japan East
- 5. North Europe
- 6. Australia East7. Central India
- 8. South East Asia

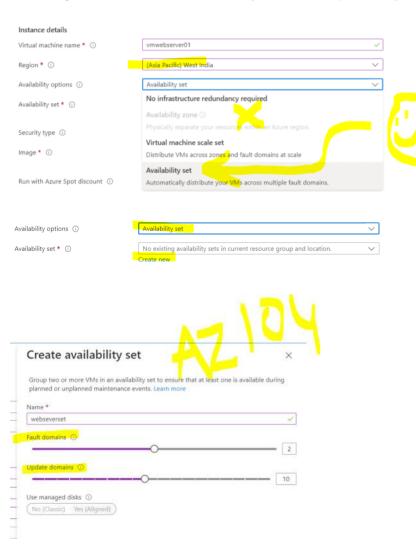
### 100% EXAM question, Interview Question





### **Availability set**

When the region does not have 3 Datacentres, but still you want Availability - Something is better than nothing.



Faulty Domain - RAC - HOW MANY RAC YOU WANT, 1 RAC, 2 RAC, 3 RAC



RAC2				
	RAC3	RAC1	RAC2	
VM02	VM03	VM01	VM02	
VM05	VM06	VM03	VM04	
VM08	VM09	VM05	VM06	
		VM07	VM08	
		VM09	VM10	
10		TOTAL	10	
3		AVAILABLE	0	
	VM05 VM08	VM05 VM06 VM08 VM09	VM05 VM06 VM03 VM09 VM05 VM07 VM09 TOTAL	VM05 VM06 VM03 VM04 VM08 VM09 VM05 VM06 VM07 VM08 VM09 VM10 TOTAL 10

3 RAC			2 RAC		
RAC1	RAC2	RAC3	RAC1	RAC2	
VM01	VM02	VM03	VM01	VM02	
			VM03		
TOTAL	10		TOTAL	10	
AVAILABLE	10		AVAILABLE	10	

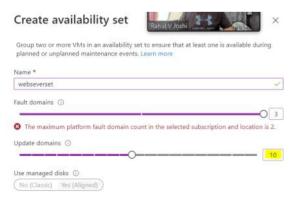
### Interview Question:

What is Fault Domain

### How many Fault Domain can we have?

Availability Set - 3

Virtual Machine Scale Set - 100



UPDATE DOMAIN								
3 RAC			2 RAC					
RAC1	RAC2	RAC3	RAC1	RAC2				
VM01 - 1	VM02 - 2	VM03 - 3	VM01	VM02				
VM04 - 4	VM05 - 5	VM06 - 6	VM03	VM04				
VM07 - 7	VM08 - 8	VM09 - 9	VM05	VM06				
VM10 - 10			VM07	VM08				
		-	VM09	VM10				
TOTAL	10		TOTAL	10				
AVAILABLE	9		AVAILABLE	10				

# WHAT IS UPDATE DOMAIN?

