**Course End Project 2**

**Write Up File**

**Project Agenda**

To create high available architecture by distributing incoming traffic among healthy service instances in cloud services or virtual machines in a load-balanced set with the help of a command-line interface

**Description:**

The Rand Enterprises Corporation wants to deploy a web application in a highly available environment so that only the healthy instances will be serving the traffic so end users will not be facing any downtime. They have decided to work on an Azure public load balancer to implement the functionality.

The operations team at Rand decides to define the entire architecture using the load balancer and its backend pool, once that’s in place they intend to create the frontend IP and health probe along with virtual machines housing their application.

Rand Enterprises works extensively on delivering highly available web applications for their users in a secure way by avoiding directly exposing the virtual machines hosting the applications to the public internet. The communication from the application in the VM to the end-user must take place via the Load Balancer.

The expectation of the operation team is to create a reusable method that can be used for automation if in the future we need to deploy the same kind of infrastructure. So, rather than deploying resources in the Azure portal, they should leverage the command-line interface to deploy the resources so that in the future these commands can be used

As a security measure, you need to ensure that only the health instances of the virtual machine will be serving the traffic.

Step 0: Login using azure cli

Step 1: Create a Resource Group

Step 2: Create Virtual Network and Subnet

Step 3: Create Public IP for Load Balancer

Step 4: Create Load Balancer

Step 5: Create Health Probe

Step 6: Create Load Balancer Rule

Step 7: Create NSG and allow HTTP traffic

Step 8: Associate NSG to subnet

Step 9: Create two VMs without public IPs

Step 10: Get IP config names for NICs

Step 11: Attach VMs to backend pool

Step 12: Install IIS on both VMs

Step 13: Get Load Balancer IP

Step 14: See the output