# Module 4: Case Study - 1

## Problem Statement:

You started your own retail business online using on-premise solutions and some limited number of systems to host your application and for other tasks. With the increase in requests in your application, the load on your on-premise servers increases. So, to handle the load you had to buy more systems almost on a regular basis. Realizing the need to cut down the expenses on systems, you decided to move your infrastructure on Azure Cloud. They also want to make sure that if a failure happens, only a subset of the machines is impacted, and the overall solution stays operational.

## Once migrated, you have been asked to manage the scaling requirements of the company by:

1. Deploying Virtual Machines in Azure Cloud as soon as the load increases and the CPU utilization exceeds 70% over a 10 minute period. When this rule triggers, the number of VMs should be increased by 20%.
2. Removing the Virtual Machines when the CPU utilization drops under 40% over a 10 minute period. When this rule triggers, the number of VMs should be decreased by 10%.
3. Use a Custom VM image with your application deployed on it to deploy multiple identical virtual machines that will be used for web development purposes.
4. Assign the machines under the same availability zone.