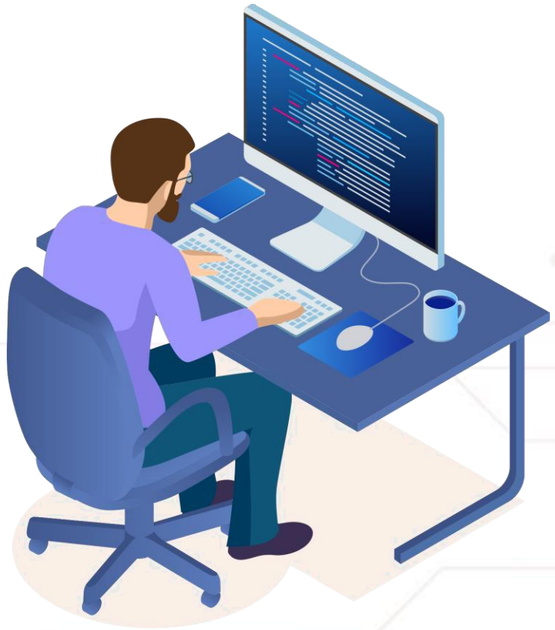
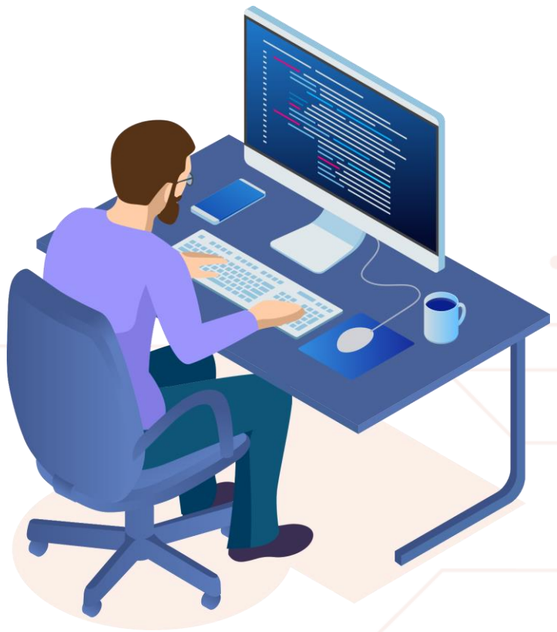


# Post Graduate Program in Cloud Computing

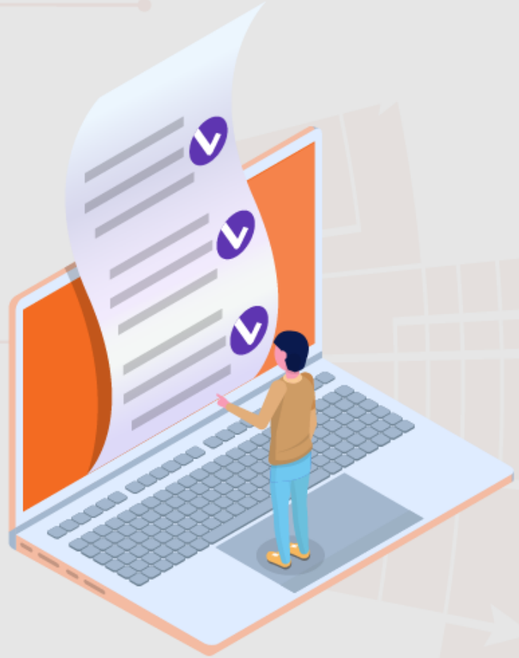
Capstone Project



# Deploying an Online Doctor's Clinic Application on Cloud

# Objectives

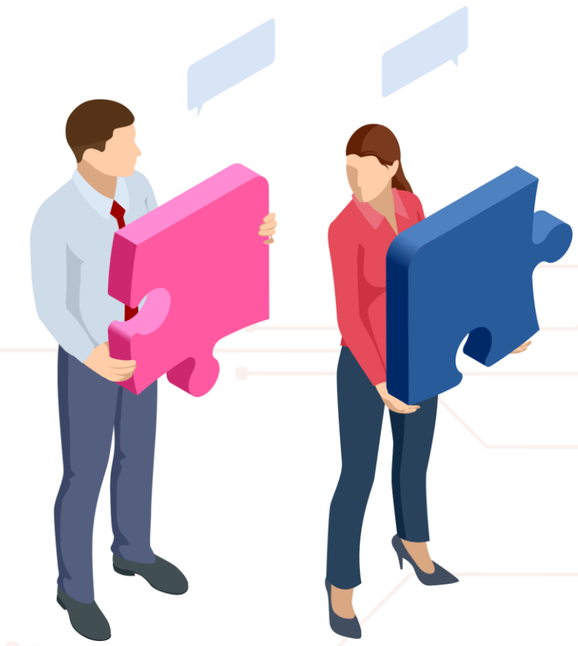
- Required to deploy the company’s website on  cloud.



# Prerequisites

- CDN
- DNS
- Azure VM
- Azure Traffic Manager

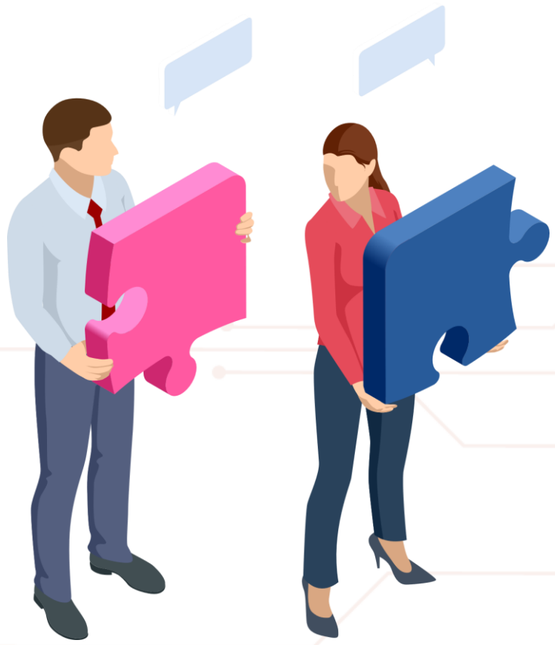
# Problem Statement and Motivation



**Problem Statement:**

In this project you should be able to deploy a LiveDocApp website on cloud using Azure.

# Problem Statement and Motivation



**Real World Scenario:**

The company has created a new website for the LiveDocApp where the patient can add their details on the website. The company wants to use a public cloud for the internet facing website of LiveDocApp. Once the website was deployed, patients started complaining that the pages are not loading fast enough. You realized that the website gets global traffic and the static assets like pages are served from a single server. You need to make sure that the traffic coming to the application from different parts of the world is load balanced at the DNS level.

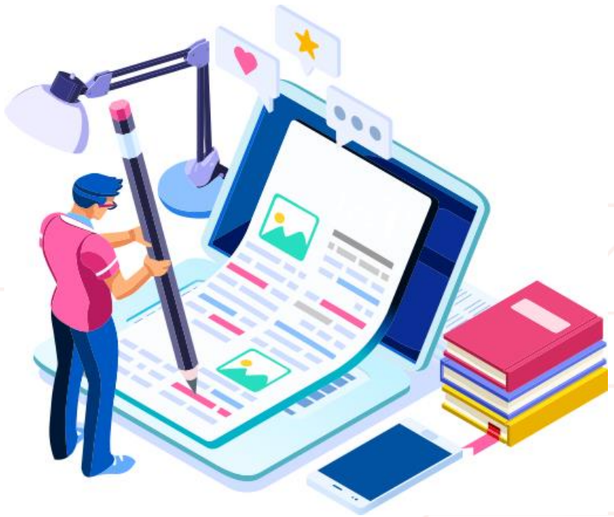
You can use either Azure or AWS platforms to design the solution using IaaS OR PaaS.

# Industry Relevance

Skills used in the project and their usage in the industry are given below:

- **Azure** - Platform for building mobile and desktop web applications
- **AWS** - Host and Deploy your Apps in World's leading Cloud Platform
- **CDN** - Distributes user requests and serving content directly from edge servers.
- **DNS** – Translates human readable domain name.
- **Azure VM** – Provides a virtual instance of servers as a single machine.
- **Azure Traffic Manager** – Distributes load to different servers.

# Expected Deliverables



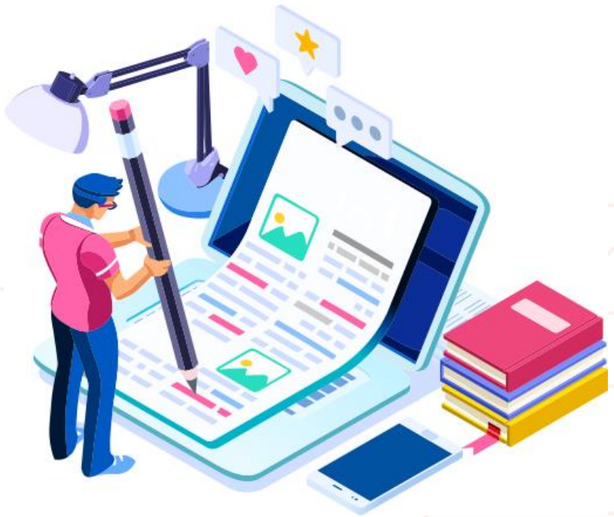
1. Suggest an appropriate solution so that your company can make use of the cloud while keeping the requirements mentioned above for your company in mind

2. Provide an approach to:

    a. Govern all the resources being used for development, testing, and production of the company's website

    b. Keep a separate track of the billing life cycle and cost management of all the services being used for hosting the company's website on Cloud

# Expected Deliverables



4. Upload all static content of your web site to cloud

5. Create a CDN endpoint and configure it to serve the static files you have uploaded

6. Use storage service and upload files for your teammates to share

7. Connect a Windows or Linux VM to the Storage service

# Tasks

- **Task 1:** Log into the Azure portal
- **Task 2:** Before creating the resources, make sure that you apply tags to resources so that you can keep a track of billing later
- **Task 3:** To begin, create an Azure App Service Plan in Standard Tier
- **Task 4:** Create an App Service (Web App) using the App Service Plan that you just created
- **Task 5:** Deploy your static web app to Azure App Service (Web App) using a method of your choice such as  Visual Studio Code, GitHub, or FTP
- **Task 6:** Hit the web app endpoint to check if the application is online
- **Task 7:** Now create a CDN profile

# Tasks

- **Task 8:** Use CDN profile to create an endpoint
- **Task 9:** Repeat steps 2 to 7 to create multiple deployments of your application in different regions so that you can meet the global traffic demand
- **Task 10:** To make sure that traffic coming from different parts of the world is load balanced at DNS level, create a Traffic Manager Profile
- **Task 11:** Create endpoints in the traffic manager corresponding to each CDN endpoints that you have created
- **Task 12:** Optionally, if you want to add the application in your own domain, you can configure the traffic manager to point to a custom domain
- **Task 13:** As good practice, follow the principle of least privilege so that you give access to the services that need to be accessed within the Azure portal

# Guidelines

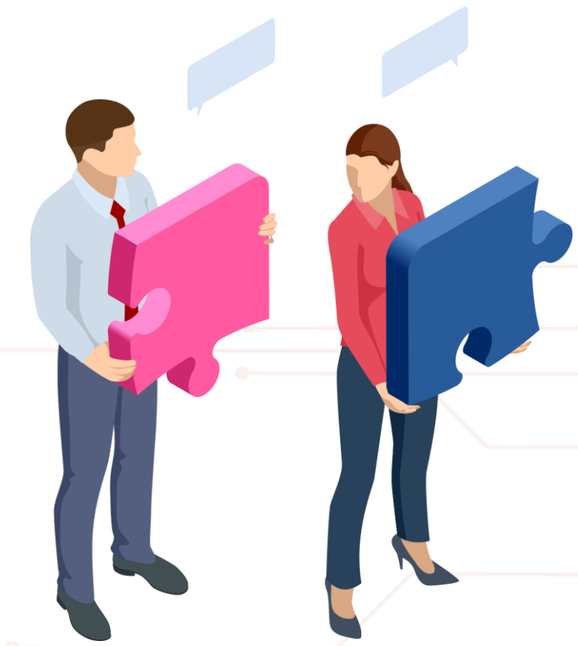
**Note:**

- You need to submit this project in 2 weeks
- Template for this project can be download from the Course Resource section
- The codes for the demo web application are given below the problem statement in the Project Assessment – “You can download the code files from here ”

# Prerequisites

- CDN
- DNS
- Azure VM
- Azure Traffic Manager

# Problem Statement and Motivation



**Problem Statement:**

In this project, you should be able to deploy a restaurant application on cloud using Azure.

# Problem Statement and Motivation

**Real World Scenario:**

You have created a new website for the restaurant and used a public cloud for the internet facing website of the restaurant. After deploying the application on cloud, users are complaining about the reloading speed of the page. The website is getting global traffic and static assets like pages are served from a single server. Also, you need to make sure that the traffic coming to the application from different parts of the world is load balanced at DNS level.

You can use either Azure or AWS platforms to design the solution using IaaS OR PaaS.

# Industry Relevance

Skills used in the project and their usage in the industry are given below:

- **Azure** - Platform for building mobile and desktop web applications
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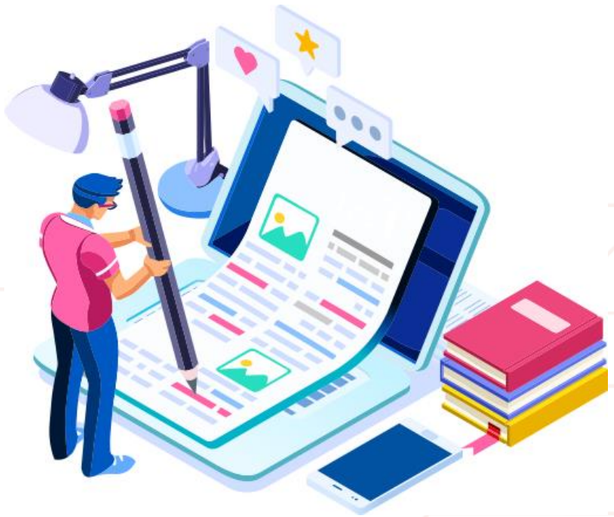

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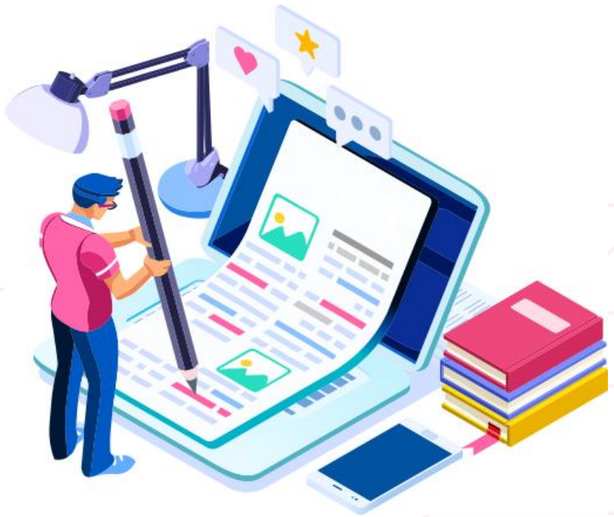
# Expected Deliverables



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# Thank you