

## Walchand College Of Engineering, Sangli.

#### (An Autonomous Institute)

**Department of**

#### Computer Science and Engineering

B. Tech Project-I Report On

**Azure Major Project**

Submitted by

**Minal Pandurang Hajagulkar 2018BTECS00014**

Under the Guidance of

Rajput Sir

(Director of Engineering)

**2021-2022**



Walchand College of Engineering, Sangli

(An Autonomous Institute)

**Department Of**

**Computer Science and Engineering**

### CERTIFICATE

This is to certify that the Project Report entitled, **“Azure Major Project”** submitted by Ms. Minal Pandurang Hajagulkar, to Walchand College of Engineering, Sangli, India, is a record of bonafide Project work done as part of summer internshipcarried out by him under my/our supervision and guidance and is worthy of consideration for the award of the degree of Bachelor of Technology in Computer Science & Engineering of the Institute.

|  |  |  |
| --- | --- | --- |
| **Mrs. Meghna Baxi[check]** | **Dr. M. A. Shah** |  |
| Director of engineering | Head Of Department |  |
| Frontdoor | Computer Sci. & Engg.Dept, |  |
|  | WCE, Sangli | .. |

# Acknowledgement

I am Thankful to my college Walchand college of engineering, Sangli for providing be with permissions to attend and participate in such a great learning experience. Special thanks to Computer science and engineering department for developing the necessary skills in me and giving me the confidence to showcase my knowledge in industry level applications.

Thanks to all the teachers and Professors who have helped me in this journey providing me with required feedback and suggestions whenever required.

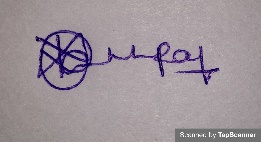
Thank you to the Training and Placement department of Walchand college of engineering, Sangli and Prof. Sanjay Dhaigude, for providing such a great opportunity.

Thanks and Regards

Minal Hajagulkar

# Declaration

I hereby declare that work presented in this project report titled **“Azure Major Project”** submitted by me in the partial fulfillment of the requirement of the award of the degree of **Bachelor of Technology (B. Tech)** Submitted in the **Department of Computer Science & Engineering, Walchand College of Engineering, Sangli**, is an authentic record of my project work carried out under the guidance of Prof. M. A. Shah.



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Minal Pandurang Hajagulkar

2018BTECS00014

## Table Of Contents

1. [Project title](#_bookmark0) 6
2. [Abstract](#_bookmark1) 7
3. [Introduction](#_bookmark2)  8
4. [Problem statement](#_bookmark3) 8
5. [Methodology](#_bookmark4) 9
6. Technology Stack 11
7. [Result and Conclusions](#_bookmark5) 11
8. [References](#_bookmark11) 12

#### Project title

**Azure Major Project.**

#### Abstract

This project was apart of my summer internship at a Veroza, Pune as a Software engineering intern. I have worked on Azure platform to utilize it and accomplish the task assigned by them over training timeline. The task where involved some complexity to understand their process and usage over the period of internship. Along with got overview Azure platform and service.

#### 3. Introduction

1. Azure:

Azure is Microsoft’s cloud platform, just like Google has it’s Google Cloud and Amazon has it’s Amazon Web Service or AWS. Generally, it is a platform through which we can use Microsoft’s resource. For example, to set up a huge server, we will require huge investment, effort, physical space and so on. In such situations, Microsoft Azure comes to our rescue. It will provide us with virtual machines, fast processing of data, analytical and monitoring tools and so on to make our work simpler. The pricing of Azure is also simpler and cost-effective. Popularly termed as “Pay As You Go”, which means how much you use, pay only for that device or tools

#### Problem statement

The Problem Statement consisting of following sub statement listed below:

1. Create a Resource group by Name (VerzeRG01)
2. Create a virtual network (verzvnet01)
3. Create a virtual machine in the portal (VerzVM01)
4. Create blob storage (VerzSTR01)
5. Create a File Share (Verzfs01) and mount on the (VerzVM01)
6. Create a network security group
7. Configure an inbound security port rule to allow RDP
8. Configure an outbound security port rule to deny Internet access
9. Create an Azure Policy to only allow certain locations (Southeast Asia), try to create a resource in any other location and check the policy evaluation. (You can use any other region)
10. Apply a lock on the (VerzeRG01) and test if you are allowed to delete any resource.
11. Setup CPU Threshold alert for the VM (VerzVM01)
12. Create a Recovery Services vault (Vezvault01) in the Resource Group (VerzeRG01)
13. Setup Backup for the Virtual Machine (VerzVM01) and ensure backup is completed successfully.

#### Methodology

1. The Only Approach we had to use Azure Platform tools are service as internship was focused on Azure platform. Even I had other platforms Like AWS and Google cloud. I need focus on Azure only as instructed in internship and everything was explained in Azure based tools. So, here is some sort of difference between 3 platform listed below in table image.

Table

Description automatically generated with medium confidence

1. Approach I followed while working on project can be found in below Github link based problem statement mentioned in “Problem Statement”:
   1. <https://github.com/minnax95/Internship_Azure_Project.git>

#### Technology Stack

#### Azure VM

#### Azure Storage Center

#### Azure Resource group

#### Recovery Services vault

#### Result and Conclusions

#### I have performed all task listed in problem statement and got understanding of Azure platform and Usage like how creation and deployment of VM, backup of VM’s, network and security management, rules setup for inbound and outbound, policy evaluation to have better cost optimization by choosing right area across world. Also got understanding of Resource locking and deletion and Network security group to have better view of security related in Azure platform.

#### References

#### Azure Virtual Machine: [https://docs.microsoft.com/en-us/azure/virtual-machines/](https://docs.microsoft.com/en-us/azure/virtual-machines/%20)

#### Azure Networking: <https://docs.microsoft.com/en-us/azure/virtual-network/network-overview?context=/azure/virtual-machines/context/context>

#### Azure Security: [https://docs.microsoft.com/en-us/azure/security/fundamentals/virtual-machines-overview?context=/azure/virtual-machines/context/context](https://docs.microsoft.com/en-us/azure/security/fundamentals/virtual-machines-overview?context=/azure/virtual-machines/context/context%20)

#### Azure Books recommendation: <https://solutionsreview.com/cloud-platforms/the-top-microsoft-azure-books/>

#### and other official firm- approved documentations.