# CST8248 – Emerging Technologies

# **Assignment 1 – Project Initialization and Planning and Communication**

### **Group Members**

|  |  |
| --- | --- |
| Name | Student number |
| Wendy Liao | 040936239 |
| Alexander Barstow | 040932318 |
| Matthew Brady | 040980858 |

**Magic Number**: 57

Remote Desktop Protocol: ET\_R1:33357

Username: Administrator

Password: DeeNice1!

**Purpose:**

As IT consultants, our team’s goal is to deploy 2 machines, 1 Linux and 1 Windows machine on both public and private cloud to our clients.

**Objectives:**

Consider the entire scope of the project. Review the project requirements and consider options for added value. Discuss with your teammate’s strengths and weaknesses.

Provide a document which details the following:

* Project Timeline
  + Brainstorming phase
  + Research time and dates (not all research must be done at the outset)
  + Project start date and end date
  + Detailed tasks breakdown (which project elements will be deployed by which team member)
  + Test phase (not all testing needs to be completed at the end, it may need to be an iterative process)
  + Documentation – How will documentation be tracked.
* Assign team members to each of the tasks above. (Member roles can be altered if need be. This information will be used to track member participation)
* Provide a Gantt chart

**Communications plan**

|  |  |
| --- | --- |
| Where will meetings occur? | Virtually - MS Teams – in the D’NICE channel |
| When will meetings occur? | Once a week, preset by the team (INPUT PLEASE, WHICH DAY AND TIME TO DO JUST A TOUCHBASE?) and then on an ad hoc basis for time sensitive topics. |
| Who will record the meeting minutes? | Wendy (If that’s okay with you two) |
| Where will meeting minutes be stored and viewed? | MS Teams >Governance folder>Team Meetings   * Then all items should be pushed onto GitHub, based on who contributed |
| What are the team members phone numbers and email (in case of emergency or need to be contacted)? | Wendy Liao  [w.liao93@gmail.com](mailto:w.liao93@gmail.com)  6138696218  Matthew Brady  [matt.brady\_52@hotmail.com](mailto:matt.brady_52@hotmail.com)  6136010082  Alexander (Alex) Barstow  [Barstow.alexander@gmail.com](mailto:Barstow.alexander@gmail.com)  5192803094 |
| How will documents be tracked? | MS Teams (for word and excel documents)  Github  Brightspace |
| Who will be point of contact to discuss with clients? (Client relations) |  |

**Equipment Required:**

* Access to a hypervisor
* ET Cluster
* Student Laptop
* vSphere 6.0 ISO can be found on the Digital Resource Portal or in any ISO datastore in the ET cluster
* vCenter Server Appliance (VCSA) can be downloaded from the Digital Resource Portal.
* ISO’s of your choice of Linux or Windows platforms
  + ISO’s of windows can be downloaded through the Azure portal -> Education -> Software
* Veeam Community Edition can be downloaded from Veeamohttps://www.veeam.com/virtual-machine-backup-solution-free.html
* Azure for Students Subscription

**Deliverables:**

\*The items below represent your client’s/employer’s must haves\*

|  |  |
| --- | --- |
| Private Cloud: | Public Cloud |
| * Configure a Jump Server and ensure that it is loaded with appropriate management tools * Deploy 2 vSphere hosts * Ensure that the vSphere hosts can connect over the management network * Deploy the following services on the platform(s) of your choice following best practices: * HTTP * DNS * LDAP or Active Directory * iSCSI Target * iSCSi initiator(this needs to be a separate platform from vSphere) * File Server (SMB, NFS, or other) * Veeam Community Edition(Enterprise Backup) * Spiceworks or similar inventory management system * Windows Admin Center (WAC) (Requires Microsoft Server 2019) * Connect WAC to your Domain using domain admin credentials * Collect inventory information using WAC and Spiceworks * Connect your Veeam Server to vcsa.et.lab using your ET domain credentials * Backup your Web server. * Client Machines should have access to the file shares * vSphere nodes should have separate/dedicated iSCSI LUNS. * Deploy 2 Client Machines. 1 Linux and 1 Windows * Create at least 1 Administrator account and 1 client account * Ensure network connectivity to all devices * Ensure that devices have service connectivity * Use Power CLI to determine the status of machines within your vAppPublic Cloud: * Connect to the Azure interface. * Establish Governance in public cloudPolicies * RBAC * Deploy a VM in Azure running PostGreSQL * Create a web server into the Azure cloud. * Connect your web server to your database VM * Secure the communication between the Web front end and the backend by leveraging Network Security Group * Use PowerShell to determine the status of VM’s within your subscription | * Connect to the Azure interface. * Establish Governance in public cloud   + Policies   + RBAC * Deploy a VM in Azure running PostGre SQL * Create a web server into the Azure cloud. * Connect your web server to your database VM * Secure the communication between the Web front end and the backend by leveraging Network Security Group * Use PowerShell to determine the status of VM’s within your subscription |