**Concepts Learnt in the internship:**

**Task 1: HUB and SPOKE model in azure**

This reference architecture details a hub-spoke topology in Azure. The hub virtual network acts as a central point of connectivity to many spoke virtual networks. The hub can also be used as the connectivity point to your on-premises networks. The spoke virtual networks peer with the hub and can be used to isolate workloads.

**Task 2: SonarQube Analysis of C++ code**

SonarQube can analyse up to 29 different languages depending on your edition. The outcome of this analysis will be quality measures and issues (instances where coding rules were broken).

**Task 3: Sonar Cloud Analysis of .Net code**

SonarCloud uses state-of-the-art techniques in static code analysis to find problems, and potential problems, in the code that you and your team write. Static analysis is called static because it does not rely on actually running the code (analysis of running code is called dynamic analysis). As a result, SonarCloud offers an additional layer of verification, different from automated testing and human code-review**.**

**Task 4: Azure Virtual WAN**

Azure Virtual WAN is a networking service providing optimised and automated branch to branch connectivity through Azure. Virtual WAN allows customers to connect branches to each other and Azure, centralising their network and security needs with virtual appliances such as firewalls and Azure network and security services.

**Task 5: Azure Virtual Machine Scale sets**

Azure Virtual Machine Scale Sets let you create and manage a group of load balanced VMs. The number of VM instances can automatically increase or decrease in response to demand or a defined schedule.

**Task 6: Azure App Service**

Azure App Service is an HTTP-based service for hosting web applications, REST APIs, and mobile back ends. You can develop in your favourite language, be it .NET, .NET Core, Java, Ruby, Node.js, PHP, or Python. Applications run and scale with ease on both Windows and Linux-based environments.

**Task 7: Azure Data factory**

Azure Data Factory is a cloud-based data integration service that allows you to create data-driven workflows in the cloud for orchestrating and automating data movement and data transformation. Azure Data Factory does not store any data itself.

**Task 8: Azure Front Door**

Azure Front Door is Microsoft’s modern cloud Content Delivery Network (CDN) that provides fast, reliable, and secure access between your users and your applications’ static and dynamic web content across the globe.

**Task 9: AWS WAF (Web Application Firewall)**

AWS WAF helps you protect against common web exploits and bots that can affect availability, compromise security, or consume excessive resources.

**Task 10: Databricks**

Databricks is an American enterprise software company founded by the creators of Apache Spark. Databricks develops a web-based platform for working with Spark, that provides automated cluster management and IPython-style notebooks.