Cloud Automation:

Hand-In Assignment 1:

* REQ-01 : "Users should be able to visit the public Broad COVID-19 Dashboard using one url"
* REQ-02 : "The Public Broad COVID-19 Dashboard should be high-available and scalable to cope with spike traffic hours of 100K users between 6pm and 8pm Eastern timezone"
* REQ-03 : "Create a Elastic File System (EFS) to store public webserver logfiles on a daily basis.
* REQ-04 : "JSON data for the public Broad COVID-19 Dashboard should be stored in a MongoDB database in a private subnet."
* REQ-05 : "Monitoring of the solution should be done using the ELK stack (e.g. Elasticsearch, Logstash and Kibana)."   - THIS REQUIREMENT IS PRIORITISED AS COULD HAVE
* REQ-06 : "CloudWatch Logs (f.e. two default metrics) should be made visible using Logstash)   - THIS REQUIREMENT IS PRIORITISED AS SHOULD HAVE
* REQ-07 : "Create an S3 bucket to host a COVID-19 test registration form supplied by our partner NHS.

Hand-In Assignment 2:

* REQ-08 : "The public Broad COVID-19 Dashboard webservice should be dockerized (using resource 1)"
* REQ-09 : "The COVID-19 registration form should be dockerized to a second webservice based on a simple .NET Core 3.1 application (using resource 2)"
* REQ-10 : "The public Broad COVID-19 Dashboard and COVID-19 registration form webservices should be deployed on AWS EC2 instances, called 'BoardWebWorkers', in the public subnet"
* REQ-11 : "Docker-compose file are used to define the services to be deployed"
* REQ-12 : "The COVID-19 registration webservice Docker image should be build from a separate AWS EC2 instance, called the 'BroadBuildServer01', in the private subnet."
* REQ-13 : "The BroadBuildServer01 uses a Docker image 'mcr.microsoft.com/dotnet/core/sdk:3.1' to build the COVID-19 registration webservice during nightly builds at 02.00 AM."
* REQ-14 : "The BroadBuildServer01 is configured as master in a Docker Swarm cluster."
* REQ-15 : "The BroadWebWorkers are configured as workers in a Docker Swarm cluster."
* REQ-16 : "Docker images are pushed to an AWS ECR or Docker.io private repository during nightly builds."

Hand-In assignment 3:

* REQ-17 : "The AWS-deployment of Cloud Formation stacks should be done using Terraform. "
* REQ-18 : "The public Broad COVID-19 Dashboard and COVID-19 registration form webservices should be deployed to Google Cloud Platform using Terraform too"
* REQ-19 : "Users can access the COVID-19 registration form at one external IP-address"
* REQ-20 : "A Docker image of the COVID-19 registration form webservice should be hosted on GCR."
* REQ-21 : "A Kubernetes cluster should be deployed on Google Cloud Platform in an automated manner"
* REQ-22 : "The Kubernetes cluster consists of a Master that manages a Slave consisting 5 replica's of the COVID-19 registration form"
* REQ-23 : "Ansible is used to configure the Kubernetes cluster.
* REQ-24 : "Ansible is used to collect logfiles from the COVID-19 Dashboard on AWS and Google Cloud Platform"