**Challenge - I**

We want to automate the deployment of mediawiki on docker/K8/OpenShift, we’d like to see code file.

We want to assess your learnability and your current knowledge of containerizing an application using an orchestration platform like K8/OpenShift.

Details

we’ll start with one instance of mediawiki running.

That’ll be backed by a database server (MySQL/Postgres) running on a separate container.

We expect this to be installed using these steps: [Installing MediaWiki](https://www.mediawiki.org/wiki/Manual:Installing_MediaWiki)

**Expectations:**

* Automated setup for the problem statement including the infrastructure setup using any IAC code (Terraform/Azure ARM Template/AWS CloudFormation/GCP) of your choice
* Adopt best practices in the tools which you are using. For example- Proper syntax and naming, Modular code etc.
* We expect your solution to be designed using orchestration tool of your choice e.g., OpenShift, Kubernetes (Use Any Hyperscaler PaaS)
* Brownie points if the application is running.

**Challenge - ll**

Background: A k8s/OpenShift cluster is shared among multiple teams to host their containerized applications and related components wherein each Team deploys their application components in their respective Namespace. Each Namespace comes with  set quotas for the total amount of memory and CPU that can be used by all Pods running in a [namespace](https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces).

**Situation:**

Create 3 pods and name them as POD A, POD B and POD C representing 3 different applications.

Write a code in YAML

1. To deal with the resource crunch issue ensure that POD A consumes 400 MB, POD B 200 MB and POC C 400 MB memory, so that all the pods can get the appropriate resources.
2. MediaWiki Pod wants to access sample data stored in form of a .csv file (You can create a sample CSV and put some max 2 rows and 2 column worth data), write a YAML script to make this .csv available to the running application pod. (We want to see where you store the .csv file to make it accessible to the running application pod)

**Challenge - lll**

**Use case:**In an OpenShift/K8s cluster, we want to segregate the configuration data from container image contents to make containerized applications as well as workload portable and reusable to make development, testing, and production environments with different configuration data as it’s easier to change and manage, prevents you from hardcoding anything in application configuration data for pod specifications.

Write a YAML script to represent a Pods’ configuration using a key-value pairs of strings. These values will be used to store configuration for your code, connection strings, username, hostnames, URIs and URLs.