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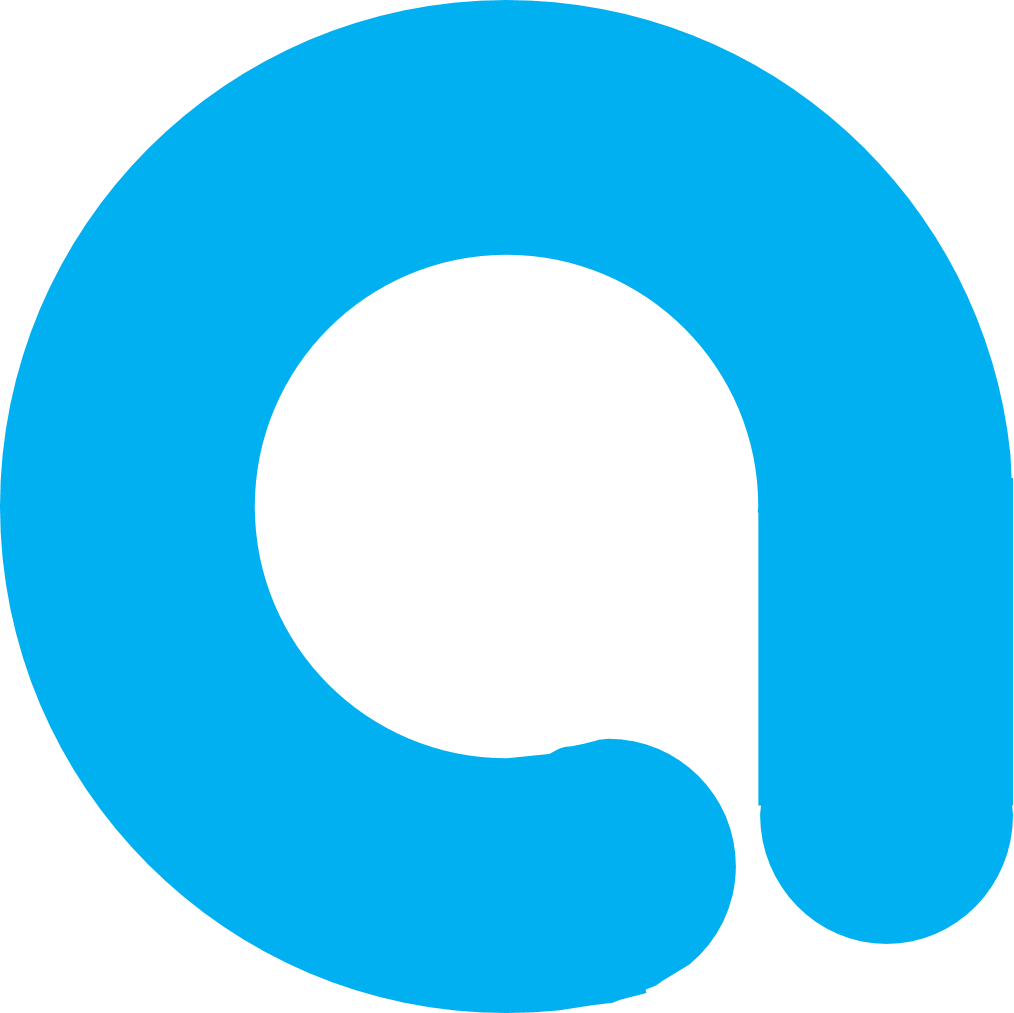
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Abstract

Anodiam© is an Edtech start up providing high quality education content. It is planned to launch commercially on 01-Jan-2023 with a website and a mobile app.   
Initially the MVP (minimal viable product) mobile app & website will contain pre-recorded Physics, Mathematics and Computer Science lessons for ICSE, year 10 only.   
Current document describes the Cloud Infra setup.

Anodiam StudeNT App Infrastructure setup

VERSION: 0.0.1



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# Helm Install Jenkins

* Create GCP project and logon into the project
* Create K8s cluster and connect to K8s cluster through kubectl
* Create namespace = infra-ns and make default current context namespace = infra-ns

$> kubectl config set-context --current --namespace=infra-ns

* Add Bitnami Repo

$> helm repo add bitnami <https://charts.bitnami.com/bitnami>

$> helm repo list

* Helm install Jenkins

$> helm install jenkins-anodiam bitnami/jenkins

NAME: jenkins-anodiam

LAST DEPLOYED: Tue Aug 2 09:39:55 2022

NAMESPACE: infra-ns

STATUS: deployed

REVISION: 1

TEST SUITE: None

NOTES:

CHART NAME: jenkins

CHART VERSION: 10.2.5

APP VERSION: 2.346.2

\*\* Please be patient while the chart is being deployed \*\*

1. Get the Jenkins URL by running:

\*\* Please ensure an external IP is associated to the jenkins-anodiam service before proceeding \*\*

\*\* Watch the status using: kubectl get svc --namespace infra-ns -w jenkins-anodiam \*\*

**export SERVICE\_IP=$(kubectl get svc --namespace infra-ns jenkins-anodiam --template "{{ range (index .status.loadBalancer.ingress 0) }}{{ . }}{{ end }}")**

**echo "Jenkins URL: http://$SERVICE\_IP/"**

2. Login with the following credentials

**echo Username: user**

**echo Password: $(kubectl get secret --namespace infra-ns jenkins-anodiam -o jsonpath="{.data.jenkins-password}" | base64 -d)**

* $> export SERVICE\_IP=$(kubectl get svc --namespace infra-ns jenkins-anodiam --template "{{ range (index .status.loadBalancer.ingress 0) }}{{ . }}{{ end }}")
* $> echo "Jenkins URL: http://$SERVICE\_IP/"

**Jenkins URL: http://34.170.116.214/**

* $> echo Password: $(kubectl get secret --namespace infra-ns jenkins-anodiam -o jsonpath="{.data.jenkins-password}" | base64 -d)

**Password: q4NaYIMGlY**

* $> helm list

NAME NAMESPACE REVISION UPDATED STATUS CHART APP VERSION

**jenkins-anodiam infra-ns 1 2022-08-02 09:39:55.206883877 +0000 UTC deployed jenkins-10.2.5 2.346.2**

# Helm Install Kafka

* $> helm install kafka-anodiam bitnami/kafka

NAME: kafka-anodiam

LAST DEPLOYED: Tue Aug 2 09:50:10 2022

NAMESPACE: infra-ns

STATUS: deployed

REVISION: 1

TEST SUITE: None

NOTES:

CHART NAME: kafka

CHART VERSION: 18.0.3

APP VERSION: 3.2.0

\*\* Please be patient while the chart is being deployed \*\*

Kafka can be accessed by consumers via port 9092 on the following DNS name from within your cluster:

**kafka-anodiam.infra-ns.svc.cluster.local**

Each Kafka broker can be accessed by producers via port 9092 on the following DNS name(s) from within your cluster:

**kafka-anodiam-0.kafka-anodiam-headless.infra-ns.svc.cluster.local:9092**

To create a pod that you can use as a Kafka client run the following commands:

kubectl run kafka-anodiam-client --restart='Never' --image docker.io/bitnami/kafka:3.2.0-debian-11-r12 --namespace infra-ns --command -- sleep infinity

kubectl exec --tty -i kafka-anodiam-client --namespace infra-ns -- bash

PRODUCER:

kafka-console-producer.sh \

--broker-list kafka-anodiam-0.kafka-anodiam-headless.infra-ns.svc.cluster.local:9092 \

--topic test

CONSUMER:

kafka-console-consumer.sh \

--bootstrap-server kafka-anodiam.infra-ns.svc.cluster.local:9092 \

--topic test \

--from-beginning