**Model Deployment & Orchestration**

**Objective**

Deploy a machine learning model and orchestrate its operations using Kubernetes.

**Amazon Elastic Kubernetes Service(EKS)**

For the M4 task, we decided to use Amazon Elastic Kubernetes Service(EKS) over AWS or Google Cloud Platform for below reasons.

* **Integration**: EKS integrates seamlessly with AWS services, making it a good choice for businesses that already use AWS
* **Security**: EKS benefits from AWS's security features, including IAM, VPC, and Amazon GuardDuty
* **Scalability**: EKS is designed to scale efficiently, making it suitable for small and large applications
* **Customization**: EKS offers a wide range of customization options
* **Community support**: EKS has a large community and extensive third-party tool support

**EKS Initial Setup**

**Kubernetes Engine**

* **Cluster Creation**
* **Deployment (using Deployment.yaml)**
* **Testing the deployed app**
* **Link to the deployed endpoint**
* **Deployment yaml file:**