### The product matched the requirements of the client. After going back and forth multiple times, the product finally made the requirements of the client and it successfully went live. Here are some of the deployment methods:

### **1. Cloud Deployment**

Deploying your model on cloud platforms ensures scalability, reliability, and ease of access.

* AWS (Amazon Web Services) – Services like SageMaker, Lambda, or EC2 allow for seamless deployment.
* Google Cloud Platform (GCP) – Options include Vertex AI, Cloud Run, and App Engine.
* Microsoft Azure – Azure Machine Learning Studio, Functions, or Container Instances.

Best for: Large-scale production with high availability and scalability.

### **2. Web App Deployment**

Expose the model through a web interface.

* Flask or FastAPI – Create a REST API to serve predictions.
* Django – Use Django’s web framework to integrate model functionalities.
* Streamlit – Build an interactive and lightweight web application for model visualization.

Best for: Prototypes, MVPs, or internal business use cases.

### **3. Containerization & Orchestration**

For easier scaling and portability.

* Docker – Package your model and dependencies into a container.
* Kubernetes – Manage and scale the deployment in a production environment.

Best for: Enterprise solutions requiring scalability and fault tolerance.

### **4. Edge & Mobile Deployment**

Deploy your model on user devices for real-time inference.

* TensorFlow Lite / ONNX – Optimize models for mobile and embedded devices.
* iOS (Core ML) & Android (ML Kit) – Deploy directly to mobile applications.

Best for: Real-time applications, IoT, and mobile AI solutions.

### **5. API-based Deployment**

Expose your model as an API for seamless integration.

* FastAPI or Flask + Gunicorn/Uvicorn – Run a lightweight, high-performance API.
* AWS Lambda + API Gateway – Serverless approach for scalable API hosting.

Best for: SaaS products, third-party integrations, and microservices.

### **6. Model Monitoring & CI/CD Integration**

Ensure reliability with continuous updates.

* MLflow – Track experiments, version models, and manage deployments.
* DVC (Data Version Control) – Handle model versioning.
* GitHub Actions / Jenkins – Automate deployment pipelines.