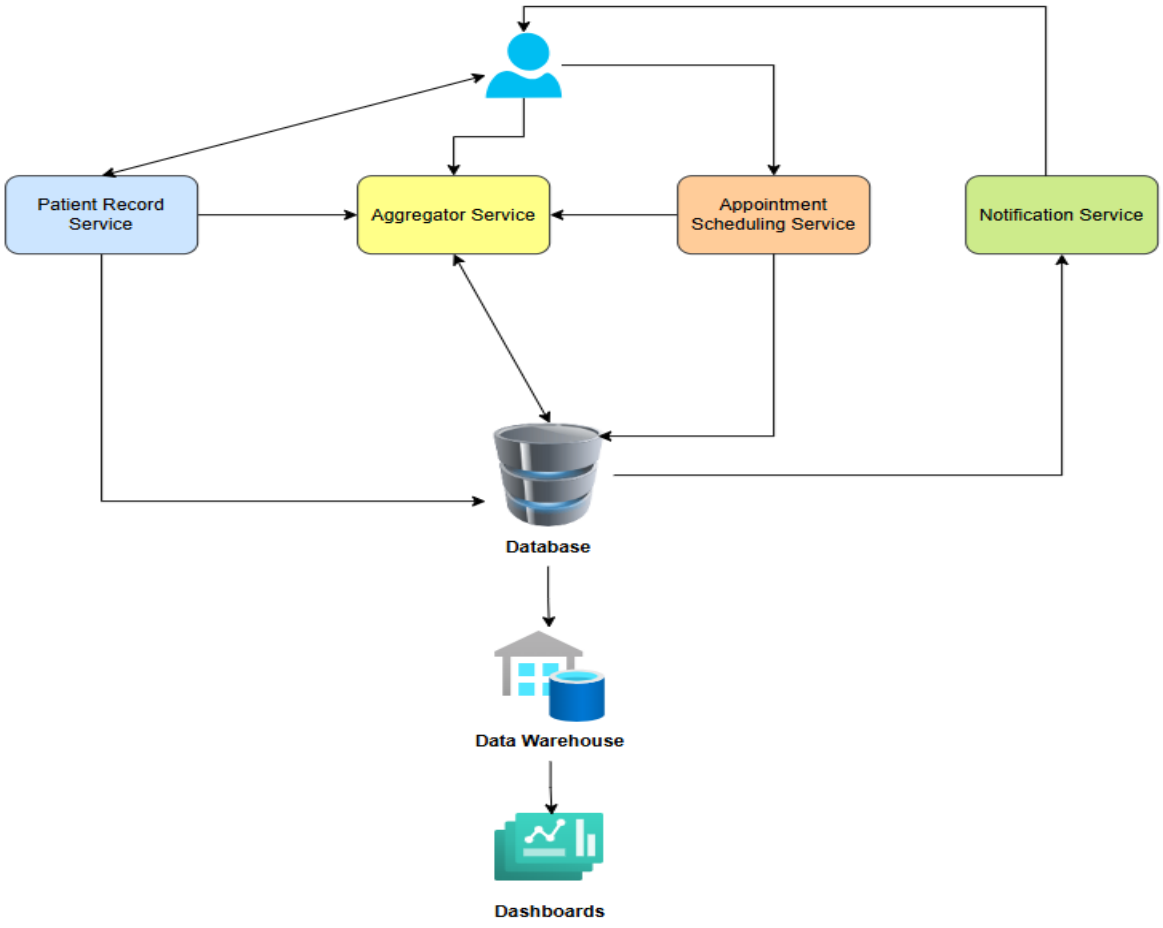
HealthSync Solution - Runbook

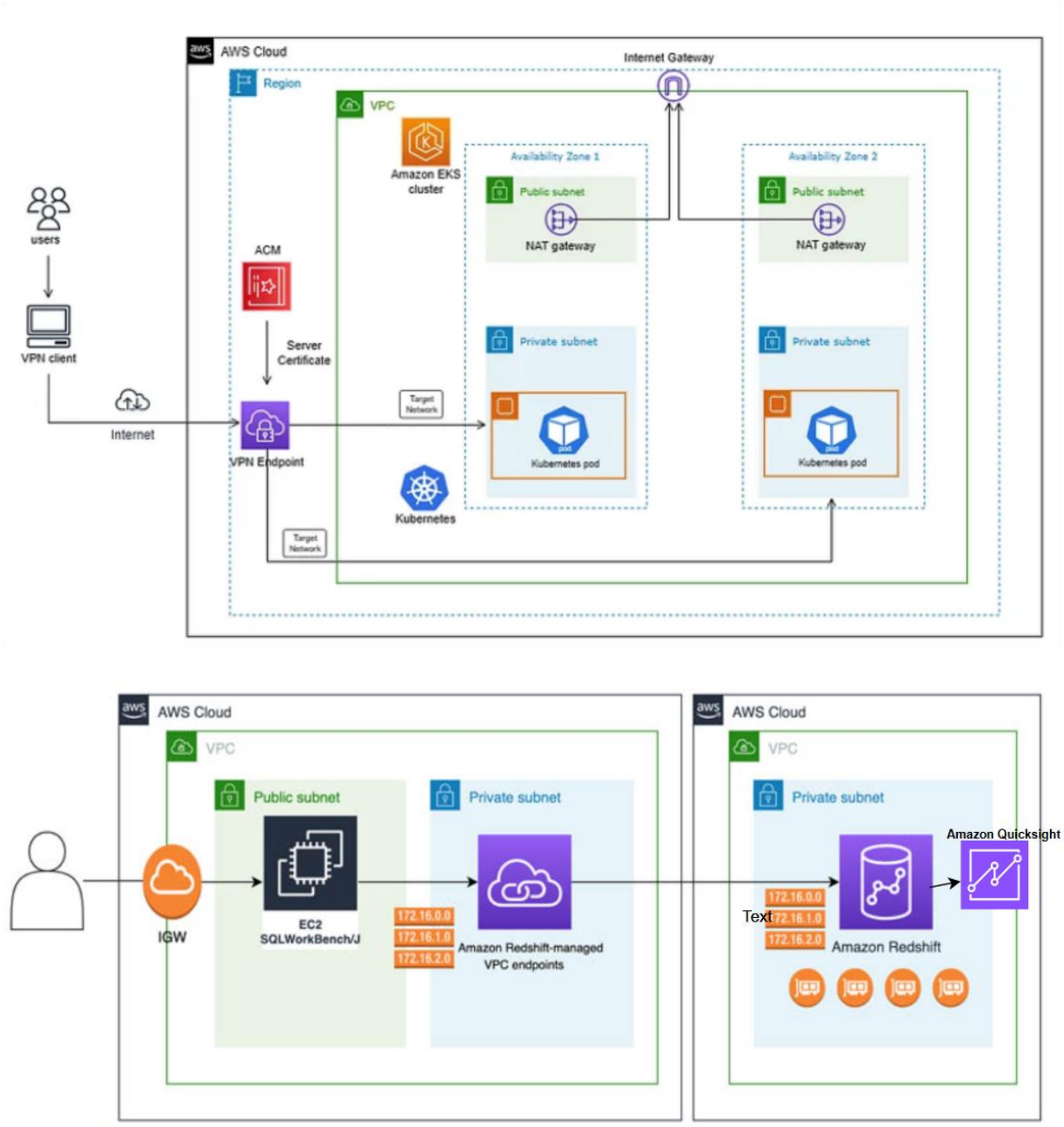
Runbook Name	**HealthSync Solution**
Runbook Description	Patient Record Service, Appointment Scheduling Service, Notification Service, and Aggregator Service Included as micro services
Owner	Hasal Chandrasiri
Version	1.0
Version Date	29/12/2024

Architectures

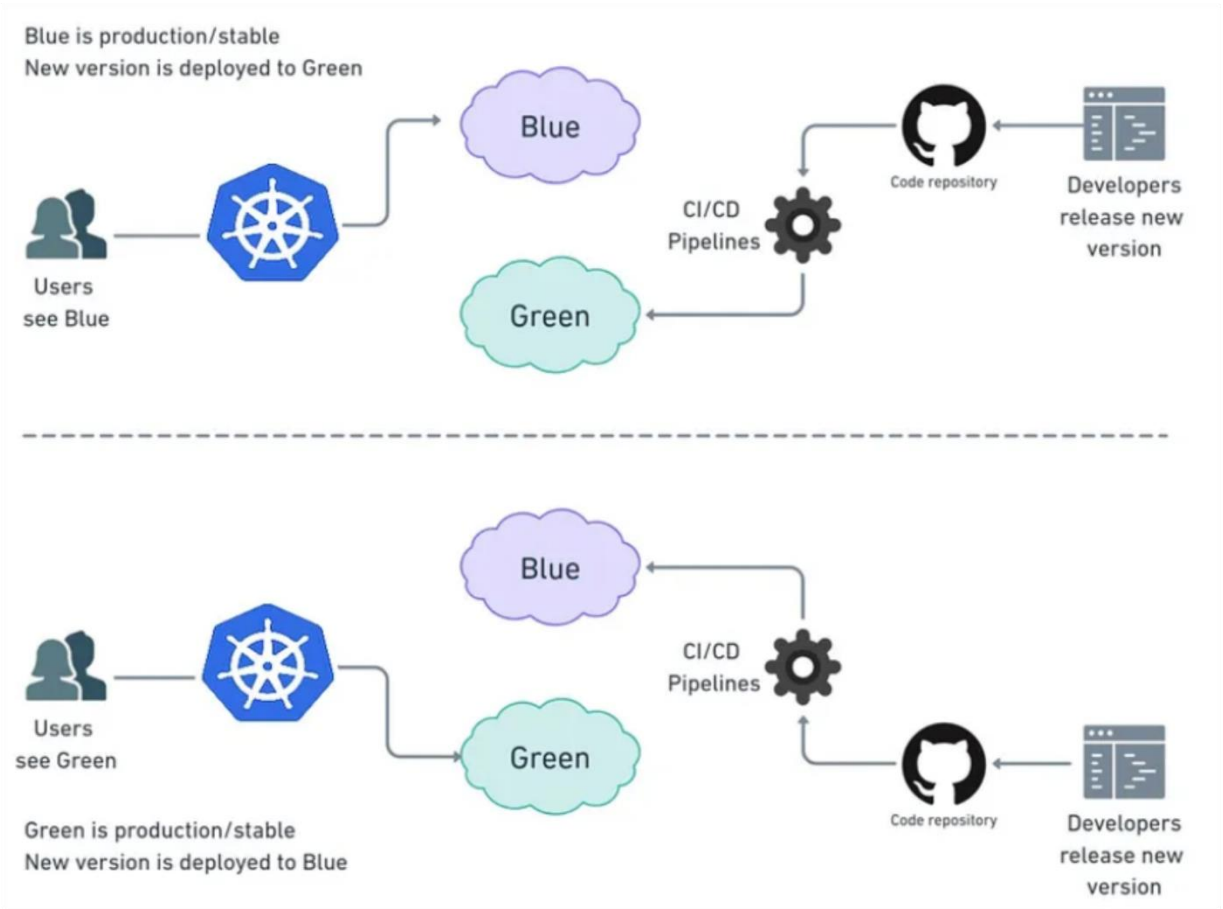
Solution Architecture



Deployment Architecture



Continuous Integration / Continuous Deployment Process



Support Contacts

Expertise Level	Team	Team lead	Contact Info
Developer	Hasal Chandrasiri	-	*Hasal.20241029@iit.ac.lk*
Product Owner	Hasal Chandrasiri	-	*Hasal.20241029@iit.ac.lk*

Process

	Step Instructions	Execution location	Run environments	Run conditions	Run instructions	Documentation
1	Configure AWS CLI	Local Machine	Local Machine CLI		aws configure	https://docs.aws.amazon.com/cli/latest/userguide/cli-chap-configure.html
2	Setup ektcl	Local Machine	Local Machine CLI	Run as administrator	choco install –y eksctl	
3	Install Kubernetes CLI	Local Machine	Local Machine CLI	Run as administrator	choco install -y kubernetes-cli	
4	Create EKS cluster	AWS	AWS Configured CLI in local machine		eksctl create cluster --name HealthSyncCluster --region us-east-1 --nodes 2 --node-type t3.small --version 1.30	
5	Create RDS for microservices	AWS EKS Cluster VPC	AWS	MySQL RDS on same VPC as the EKS Cluster	After creating the RDS, create the healthsync database and create tables required by each service	
6	Update connection details for patient record service	GitHub	Local Machine		Clone the repository, change the connection string, commit and merge to main branch using a pull request	https://github.com/HasalChandrasiri/Patient-Record-Service.git
7	Update connection details for notification service	GitHub	Local Machine		Clone the repository, change the connection string, commit and merge to main branch using a pull request	https://github.com/HasalChandrasiri/Notification-Service.git
8	Update connection details for appointment scheduling service	GitHub	Local Machine		Clone the repository, change the connection string, commit and merge to main	https://github.com/HasalChandrasiri/Appointment-Scheduling-Service.git

					branch using a pull request	
9	Update connection details for aggregation service	GitHub	Local Machine		Clone the repository, change the connection string, commit and merge to main branch using a pull request	https://github.com/HasalChandrasiri/Aggregator-Service.git
10	Setup Environmental variables for secrets	AWS	AWS Configured CLI in local machine		Set the DB_HOST, DB_NAME, DB_USER and DB_PASSWORD in the secrets	
11	Setup Environmental variables for KUBECONFIG	GitHub	Local Machine		Set the KUBECONFIG in the secrets	
12	Deploy service of patient record service	AWS	AWS Configured CLI in local machine		kubectl apply -f patient-record-service-blue/deployment.yaml kubectl apply -f patient-record-service-green/deployment.yaml	
13	Deploy service of notification service	AWS	AWS Configured CLI in local machine		kubectl apply -f notification-service-blue/deployment.yaml kubectl apply -f notification-service-green/deployment.yaml	
14	Deploy service of appointment scheduling service	AWS	AWS Configured CLI in local machine		kubectl apply -f appointment-scheduling-service-blue/deployment.yaml kubectl apply -f appointment-scheduling-	

					service-green/deployment.yaml	
15	Deploy service of aggregator service	AWS	AWS Configured CLI in local machine		kubectl apply -f aggregator-service-blue/deployment.yaml kubectl apply -f aggregator-service-green/deployment.yaml	
16	To monitor get the details from Prometheus	AWS	AWS Configured CLI in local machine		kubectl port-forward -n monitoring svc/prometheus-kube-prometheus-prometheus 9090 http://localhost:9090	
17	Monitor Health of EKS cluster	AWS	AWS Configured CLI in local machine		kubectl port-forward -n monitoring svc/prometheus-grafana 3000:80 http://localhost:3000	
18	Access analytics data using Quicksight	AWS	AWS Quicksight			https://us-east-1.quicksight.aws.amazon.com/sn/analyses/06a61382-abfa-4936-a9be-9926ad20cfc2 https://us-east-1.quicksight.aws.amazon.com/sn/analyses/515c5e1d-d7a3-41f0-a4af-86abd5fd5663