Project Janus – Daily Runbook (v4)

This runbook covers Start-of-Day (SOD) and End-of-Day (EOD) procedures
for the Project Janus EKS environment.

Start of Day (SOD)
1. Terraform Apply (Infra Up)
   - cd infra
   - terraform apply

2. Update kubeconfig for the fresh cluster
   - aws eks update-kubeconfig \
       --region eu-central-1 \
       --name "$(terraform output -raw Cluster_Name)"

3. Sanity check cluster health
   - kubectl get nodes
   - kubectl get pods -n kube-system

4. Reinstall / validate External Secrets Operator (if needed)
   - helm upgrade --install external-secrets external-secrets/external-secrets \
       --namespace external-secrets --create-namespace \
       --set serviceAccount.create=true \
       --set serviceAccount.name=external-secrets \
       --set serviceAccount.annotations."eks.amazonaws.com/role-arn"="<ESO-ROLE-ARN>"

5. Apply ESO SecretStore and ExternalSecret manifests
   - kubectl apply -f k8s/secretstore.yaml
   - kubectl apply -f k8s/externalsecret.yaml
   - kubectl get externalsecret

Start of Day (SOD) – Continued

6. Ensure the Kubernetes Secret was synced from AWS SM
   - kubectl get secret go-demo-go-microservice-chart-secret
   - kubectl describe externalsecret go-demo-secrets

7. Deploy / upgrade the application via Helm
   - helm upgrade --install go-demo ./go-microservice-chart
   - kubectl get pods

8. Get the Load Balancer URL and test endpoints
   - LB=$(kubectl get svc go-demo-go-microservice-chart \
     -o jsonpath='{.status.loadBalancer.ingress[0].hostname}')
   - curl "http://$LB/health"
   - curl "http://$LB/items"
   - curl "http://$LB/metrics"

9. Verify monitoring stack (if enabled)
   - kubectl get pods -n monitoring
   - port-forward Prometheus and Grafana if needed

End of Day (EOD)

1. Sanity check current state
   - kubectl get nodes
   - kubectl get pods -A

2. Optional: verify secrets still synced
   - kubectl describe externalsecret go-demo-secrets
   - kubectl get secret go-demo-go-microservice-chart-secret

3. Optional: clean application-level resources only
   - helm uninstall go-demo
   - (leave cluster running if you want faster next SOD)

4. Full teardown to avoid costs (recommended)
   - cd infra
   - terraform destroy

5. Final AWS sanity checks (in console or CLI)
   - No EKS clusters left (unless explicitly kept)
   - No EC2 instances from the node group
   - No stray Load Balancers related to the service
   - No unused NAT gateways / EIPs

Daily Checks Checklist

[ ] Terraform apply completed successfully (SOD)
[ ] aws eks update-kubeconfig run with correct cluster name
[ ] kubectl get nodes shows all nodes Ready
[ ] kube-system pods are all Running
[ ] external-secrets pods (controller, webhook, cert-controller) are Running
[ ] ExternalSecret status is Ready (no SecretSyncedError)
[ ] go-demo Deployment Pod is 1/1 Running
[ ] Load balancer hostname resolves and responds: /health, /items, /metrics
[ ] Prometheus shows custom metrics (cpu_temperature_celsius, hd_errors_total)
[ ] Grafana dashboard loads and shows data points

[ ] At EOD: helm uninstall go-demo (if desired)
[ ] terraform destroy completed successfully (if doing full teardown)
[ ] AWS console: verified no expensive stray resources remain