

```

apiVersion: v1
kind: Secret
metadata:
  name: gift-secret
  labels:
    app: gift-service
    project: gift-service
    tier: backend
# Secret for storing sensitive data like JWT and Kakao credentials
data:
  JWT_SECRET: Ww4ya2ppYmRkRkFXdG5QSjJBRmxMOFdYbW9oSk1DdmlnUWdnYUV5cGE1RT0=
  KAKAO_CLIENT_ID: YWMyMGQ4NGY5N2I2NzlmMGJiZDlhODA2NWJhODIzZjM=
  KAKAO_CLIENT_SECRET: RnczSm1MNVBrcGV2WFZaOU9pVk04YmZiZ0hVUEQ1RUE=
---
apiVersion: v1
kind: ConfigMap
metadata:
  name: gift-config
  labels:
    app: gift-service
    project: gift-service
    tier: backend
# ConfigMap for storing non-sensitive configuration data
data:
  SERVICE_PRODUCT_URI: http://product-service-svc:8081
  SERVICE_WISH_URI: http://wish-service-svc:8082
  SERVICE_USER_URI: http://user-service-svc:8084
  SERVICE_ORDER_URI: http://order-service-svc:8083
  KAKAO_REDIRECT_URI: http://localhost:8080/members/login/oauth2/code/kakao
  API_GATEWAY_URI: http://api-gateway-svc:8080
  FRONT_DOMAIN: http://localhost:8080
---
apiVersion: apps/v1
kind: Deployment
metadata:
  name: api-gateway
  labels:
    app: api-gateway
    project: gift-service
    tier: backend
# Deployment for api-gateway service
spec:
  replicas: 1
  selector:
    matchLabels:
      app: api-gateway
  template:
    metadata:
      labels:
        app: api-gateway
        project: gift-service
        tier: backend
    spec:
      containers:
        - name: api-gateway
          image: sk124590/api-gateway:2.1
          ports:
            - containerPort: 8080
          envFrom:
            - configMapRef:
                name: gift-config
            - secretRef:

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```
        name: gift-secret
      resources:
        requests:
          cpu: "100m"
          memory: "256Mi"
        limits:
          cpu: "500m"
          memory: "512Mi"
    ---
  apiVersion: v1
  kind: Service
  metadata:
    name: api-gateway-svc
    labels:
      app: api-gateway
      project: gift-service
      tier: backend
  # Service for api-gateway
  spec:
    type: ClusterIP
    ports:
      - port: 8080
        targetPort: 8080
    selector:
      app: api-gateway
    ---
  apiVersion: apps/v1
  kind: Deployment
  metadata:
    name: user-service
    labels:
      app: user-service
      project: gift-service
      tier: backend
  # Deployment for user-service
  spec:
    replicas: 1
    selector:
      matchLabels:
        app: user-service
    template:
      metadata:
        labels:
          app: user-service
          project: gift-service
          tier: backend
      spec:
        containers:
          - name: user-service
            image: sk124590/user-service:2.1
            ports:
              - containerPort: 8084
            envFrom:
              - configMapRef:
                  name: gift-config
              - secretRef:
                  name: gift-secret
            resources:
              requests:
                cpu: "150m"
                memory: "512Mi"
              limits:
                cpu: "1000m"
                memory: "1Gi"
```

```
---
apiVersion: v1
kind: Service
metadata:
  name: user-service-svc
  labels:
    app: user-service
    project: gift-service
    tier: backend
# Service for user-service
spec:
  type: ClusterIP
  ports:
    - port: 8084
      targetPort: 8084
  selector:
    app: user-service
---
apiVersion: apps/v1
kind: Deployment
metadata:
  name: product-service
  labels:
    app: product-service
    project: gift-service
    tier: backend
# Deployment for product-service
spec:
  replicas: 1
  selector:
    matchLabels:
      app: product-service
  template:
    metadata:
      labels:
        app: product-service
        project: gift-service
        tier: backend
    spec:
      containers:
        - name: product-service
          image: sk124590/product-service:2.1
          ports:
            - containerPort: 8081
          resources:
            requests:
              cpu: "150m"
              memory: "512Mi"
            limits:
              cpu: "1000m"
              memory: "1Gi"
---
apiVersion: v1
kind: Service
metadata:
  name: product-service-svc
  labels:
    app: product-service
    project: gift-service
    tier: backend
# Service for product-service
spec:
  type: ClusterIP
  ports:
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- port: 8081
  targetPort: 8081
selector:
  app: product-service
---
apiVersion: apps/v1
kind: Deployment
metadata:
  name: wish-service
  labels:
    app: wish-service
    project: gift-service
    tier: backend
# Deployment for wish-service
spec:
  replicas: 1
  selector:
    matchLabels:
      app: wish-service
  template:
    metadata:
      labels:
        app: wish-service
        project: gift-service
        tier: backend
    spec:
      containers:
        - name: wish-service
          image: sk124590/wish-service:2.1
          ports:
            - containerPort: 8082
          envFrom:
            - configMapRef:
                name: gift-config
          resources:
            requests:
              cpu: "100m"
              memory: "512Mi"
            limits:
              cpu: "700m"
              memory: "1Gi"
---
apiVersion: v1
kind: Service
metadata:
  name: wish-service-svc
  labels:
    app: wish-service
    project: gift-service
    tier: backend
# Service for wish-service
spec:
  type: ClusterIP
  ports:
    - port: 8082
      targetPort: 8082
  selector:
    app: wish-service
---
apiVersion: apps/v1
kind: Deployment
metadata:
  name: order-service
  labels:

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```
  app: order-service
  project: gift-service
  tier: backend
# Deployment for order-service
spec:
  replicas: 1
  selector:
    matchLabels:
      app: order-service
  template:
    metadata:
      labels:
        app: order-service
        project: gift-service
        tier: backend
    spec:
      containers:
        - name: order-service
          image: sk124590/order-service:2.1
          ports:
            - containerPort: 8083
          envFrom:
            - configMapRef:
                name: gift-config
            - secretRef:
                name: gift-secret
          resources:
            requests:
              cpu: "100m"
              memory: "512Mi"
            limits:
              cpu: "500m"
              memory: "512Mi"
---
apiVersion: v1
kind: Service
metadata:
  name: order-service-svc
  labels:
    app: order-service
    project: gift-service
    tier: backend
# Service for order-service
spec:
  type: ClusterIP
  ports:
    - port: 8083
      targetPort: 8083
  selector:
    app: order-service
---
apiVersion: apps/v1
kind: Deployment
metadata:
  name: gift-app
  labels:
    app: gift-app
    project: gift-service
    tier: frontend
# Deployment for gift-app
spec:
  replicas: 1
  selector:
    matchLabels:
```

```

    app: gift-app
  template:
    metadata:
      labels:
        app: gift-app
        project: gift-service
        tier: frontend
    spec:
      containers:
        - name: gift-app
          image: sk124590/gift-app:2.1
          ports:
            - containerPort: 8085
          envFrom:
            - configMapRef:
                name: gift-config
            - secretRef:
                name: gift-secret
          resources:
            requests:
              cpu: "100m"
              memory: "512Mi"
            limits:
              cpu: "700m"
              memory: "1Gi"
---
apiVersion: v1
kind: Service
metadata:
  name: gift-app-svc
  labels:
    app: gift-app
    project: gift-service
    tier: frontend
# LoadBalancer service for gift-app to expose it to the outside world
spec:
  type: LoadBalancer
  ports:
    - port: 8080
      targetPort: 8085
  selector:
    app: gift-app

```

YAML 위치와 내용	참조된 Source	비고
gift-secret.Secret.data.JTW_SECRET / KAKAO_CLIENT_ID / KAKAO_CLIENT_SECRET	source_13	Secret 값은 반드시 Base64 인코딩하여 data 필드에 저장, stringData 금지
gift-config.ConfigMap.data.SERVICE_PRODUCT_URI / SERVICE_WISH_URI / SERVICE_USER_URI / SERVICE_ORDER_URI / KAKAO_REDIRECT_URI / API_GATEWAY_URI / FRONT_DOMAIN	source_5, source_6, source_7, source_10	각 서비스 통신 주소 및 리다이렉트/도메인 정보가 ConfigMap에 정의됨
api-gateway.Deployment.spec.template.spec.containers[0].image = sk124590/api-gateway:2.1	source_5	api-gateway 컨테이너 이미지 및 버전 정보
api-gateway.Deployment.spec.template.spec.containers[0].envFrom.configMapRef / secretRef	source_5	ConfigMap과 Secret에서 환경 변수 주입 규칙

YAML 위치와 내용	참조된 Source	비고
api-gateway.Deployment.spec.template.spec.containers[0].resources.requests/limits	source_5	CPU/메모리 리소스 요청 및 제한값
user-service.Deployment.spec.template.spec.containers[0].image = sk124590/user-service:2.1	source_6	user-service 컨테이너 이미지 및 포트 정의
user-service.Deployment.spec.template.spec.containers[0].envFrom.configMapRef / secretRef	source_6	Secret(KAKAO, JWT), ConfigMap(KAKAO_REDIRECT_URI) 환경변수 정의
user-service.Deployment.spec.template.spec.containers[0].resources.requests/limits	source_6	user-service 리소스 요청/제한값
product-service.Deployment.spec.template.spec.containers[0].image = sk124590/product-service:2.1	source_8	product-service 이미지/포트 정의
product-service.Deployment.spec.template.spec.containers[0].resources.requests/limits	source_8	product-service 리소스 설정
wish-service.Deployment.spec.template.spec.containers[0].image = sk124590/wish-service:2.1	source_9	wish-service 이미지/포트 정의
wish-service.Deployment.spec.template.spec.containers[0].envFrom.configMapRef	source_9	ConfigMap에서 SERVICE_PRODUCT_URI 주입
wish-service.Deployment.spec.template.spec.containers[0].resources.requests/limits	source_9	wish-service 리소스 요청/제한값
order-service.Deployment.spec.template.spec.containers[0].image = sk124590/order-service:2.1	source_10	order-service 이미지/포트 정의
order-service.Deployment.spec.template.spec.containers[0].envFrom.configMapRef / secretRef	source_10	ConfigMap(SERVICE_PRODUCT_URI, WISH_URI, USER_URI, FRONT_DOMAIN) + Secret(KAKAO)
order-service.Deployment.spec.template.spec.containers[0].resources.requests/limits	source_10	order-service 리소스 요청/제한값
gift-app.Deployment.spec.template.spec.containers[0].image = sk124590/gift-app:2.1	source_7	gift-app 컨테이너 이미지 및 포트 정의
gift-app.Deployment.spec.template.spec.containers[0].envFrom.configMapRef / secretRef	source_7	ConfigMap(API_GATEWAY_URI, KAKAO_REDIRECT_URI) + Secret(JWT_SECRET)
gift-app.Deployment.spec.template.spec.containers[0].resources.requests/limits	source_7	gift-app 리소스 요청/제한값
gift-app-svc.Service.spec.type = LoadBalancer	source_4	gift-app 외부 노출은 LoadBalancer 방식으로 8080 → 8085 매핑
api-gateway-svc, user-service-svc, product-service-svc, wish-service-svc, order-service-svc Service.spec.type = ClusterIP	source_4	내부 서비스는 ClusterIP 타입으로 내부 통신만 허용

특징: 첫 성공. 모든 서비스 동작