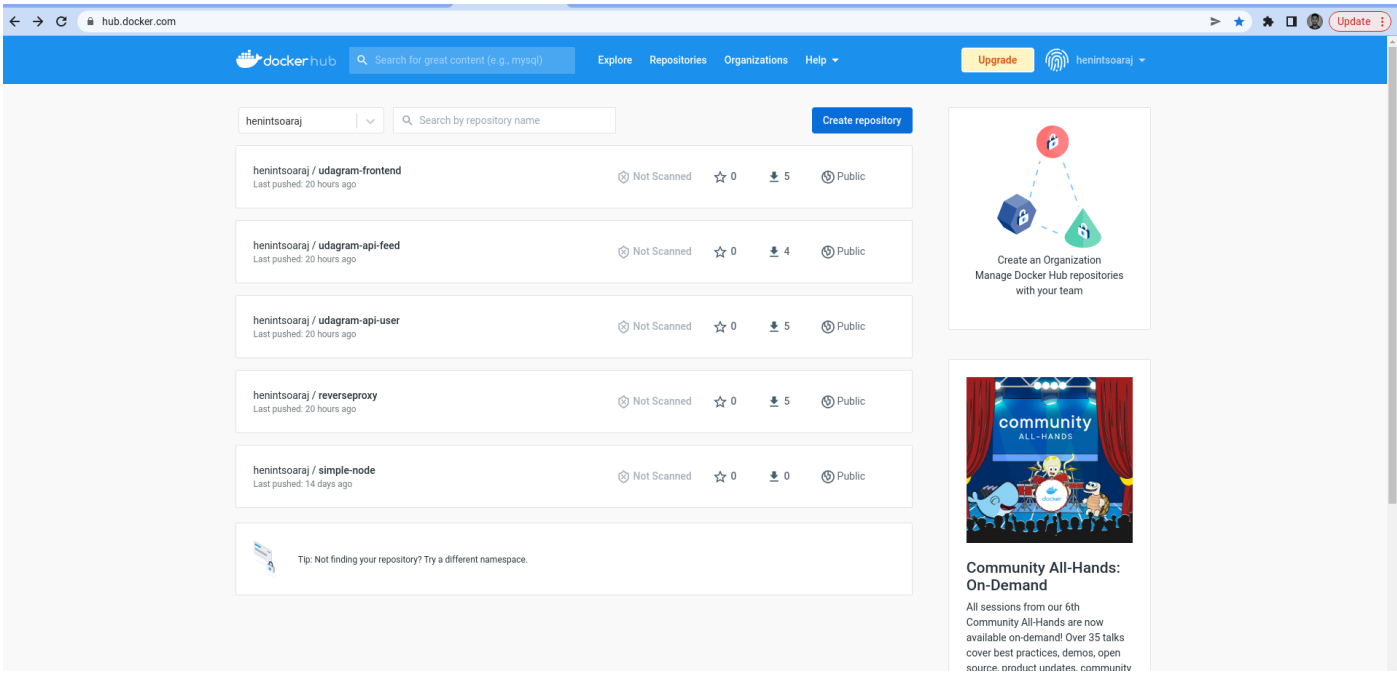
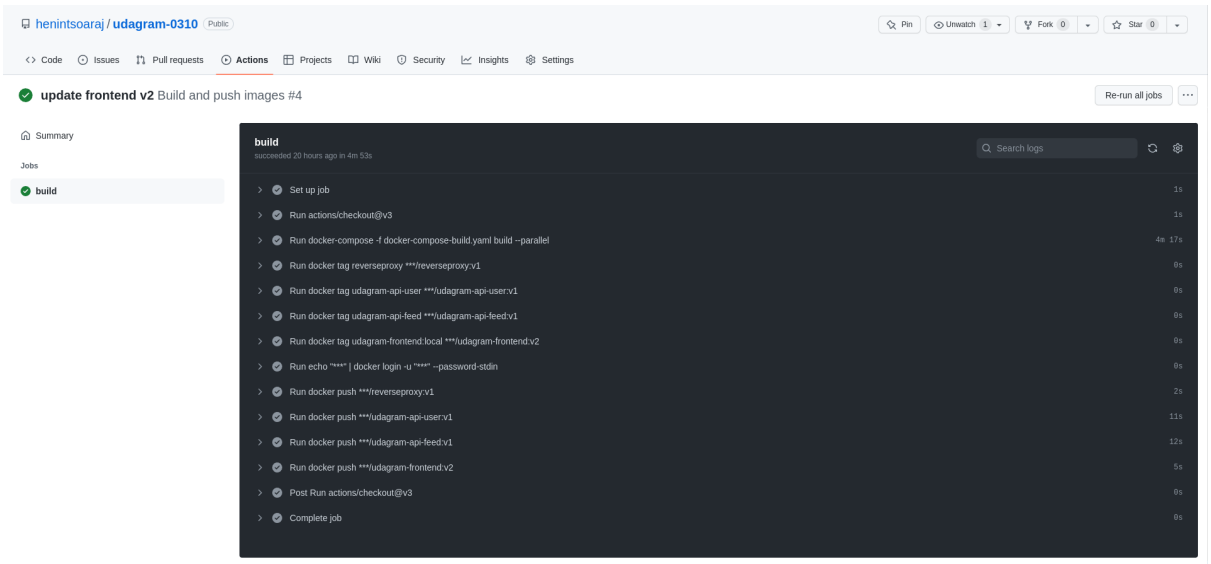
DockerHub



Action pipeline



kubectl get pods

```
┌─tsoutsou at myarch in ~/cd0354-monolith-to-microservices-project on main✔
└─± kubectl get pods
NAME                            READY   STATUS    RESTARTS   AGE
backend-feed-587c9c94f7-k9kj6   1/1     Running   0          18h
backend-feed-587c9c94f7-ndhh6   1/1     Running   0          18h
backend-user-6d69bbb85c-2k559   1/1     Running   0          18h
backend-user-6d69bbb85c-lvd4x   1/1     Running   0          18h
frontend-74fdd84b5c-jjgns       1/1     Running   0          18h
frontend-74fdd84b5c-s4c45       1/1     Running   0          18h
reverseproxy-7f956c4b77-65vgx   1/1     Running   0          18h
reverseproxy-7f956c4b77-khpc8   1/1     Running   0          18h
┌─tsoutsou at myarch in ~/cd0354-monolith-to-microservices-project on main✔
└─±
```

kubectl describe services

```
┌─tsoutsou at myarch in ~/cd0354-monolith-to-microservices-project on main✔
└─± kubectl describe services
Name:              backend-feed
Namespace:         default
Labels:            <none>
Annotations:       <none>
Selector:          app=backend-feed
Type:              ClusterIP
IP Family Policy:  SingleStack
IP Families:       IPv4
IP:                10.100.155.198
IPs:               10.100.155.198
Port:              <unset>  8080/TCP
TargetPort:        8080/TCP
Endpoints:         192.168.50.168:8080,192.168.57.67:8080
Session Affinity:  None
Events:            <none>


Name:              backend-user
Namespace:         default
Labels:            <none>
Annotations:       <none>
Selector:          app=backend-user
Type:              ClusterIP
IP Family Policy:  SingleStack
IP Families:       IPv4
IP:                10.100.244.161
IPs:               10.100.244.161
Port:              <unset>  8080/TCP
TargetPort:        8080/TCP
Endpoints:         192.168.34.53:8080,192.168.59.25:8080
Session Affinity:  None
Events:            <none>
```

```
Name:              frontend
Namespace:         default
Labels:            <none>
Annotations:       <none>
Selector:          app=frontend
Type:              ClusterIP
IP Family Policy:  SingleStack
IP Families:       IPv4
IP:                10.100.148.8
IPs:               10.100.148.8
Port:              <unset>  8100/TCP
TargetPort:        80/TCP
Endpoints:         192.168.46.199:80,192.168.57.52:80
Session Affinity:  None
Events:            <none>


Name:              kubernetes
Namespace:         default
Labels:            component=apiserver
                   provider=kubernetes
Annotations:       <none>
Selector:          <none>
Type:              ClusterIP
IP Family Policy:  SingleStack
IP Families:       IPv4
IP:                10.100.0.1
IPs:               10.100.0.1
Port:              https  443/TCP
TargetPort:        443/TCP
Endpoints:         192.168.69.169:443,192.168.97.80:443
Session Affinity:  None
Events:            <none>
```

```
Name:                     publicfrontend
Namespace:                default
Labels:                   app=frontend
Annotations:              <none>
Selector:                 app=frontend
Type:                     LoadBalancer
IP Family Policy:         SingleStack
IP Families:              IPv4
IP:                       10.100.14.126
IPs:                      10.100.14.126
LoadBalancer Ingress:     aaf24d5a6474c426e824823fdf73597e-1484208937.us-east-1.elb.amazonaws.com
Port:                     <unset>  80/TCP
TargetPort:               80/TCP
NodePort:                 <unset>  32688/TCP
Endpoints:                192.168.46.199:80,192.168.57.52:80
Session Affinity:         None
External Traffic Policy:  Cluster
Events:                   <none>


Name:                     publicreverseproxy
Namespace:                default
Labels:                   app=reverseproxy
Annotations:              <none>
Selector:                 app=reverseproxy
Type:                     LoadBalancer
IP Family Policy:         SingleStack
IP Families:              IPv4
IP:                       10.100.206.60
IPs:                      10.100.206.60
LoadBalancer Ingress:     ac8f7e6506e3e46b9bcf9c42b9412dd9-147226694.us-east-1.elb.amazonaws.com
Port:                     <unset>  8080/TCP
TargetPort:               8080/TCP
NodePort:                 <unset>  30420/TCP
Endpoints:                192.168.37.92:8080,192.168.50.126:8080
Session Affinity:         None
External Traffic Policy:  Cluster
Events:                   <none>
```

```
Name:              reverseproxy
Namespace:         default
Labels:            <none>
Annotations:       <none>
Selector:          app=reverseproxy
Type:              ClusterIP
IP Family Policy:  SingleStack
IP Families:       IPv4
IP:                10.100.18.6
IPs:               10.100.18.6
Port:              <unset>  8080/TCP
TargetPort:        8080/TCP
Endpoints:         192.168.37.92:8080,192.168.50.126:8080
Session Affinity:  None
Events:            <none>
┌─tsoutsou at myarch in ~/cd0354-monolith-to-microservices-project on main✔
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```

kubectl describe hpa

```
tsoutsou at myarch in ~/cd0354-monolith-to-microservices-project on mainxxx
± kubectl describe hpa backend-user
Name:                                                  backend-user
Namespace:                                             default
Labels:                                                <none>
Annotations:                                           <none>
CreationTimestamp:                                     Wed, 05 Oct 2022 23:35:02 +0300
Reference:                                             Deployment/backend-user
Metrics:                                               ( current / target )
  resource cpu on pods  (as a percentage of request):  0% (0) / 50%
Min replicas:                                          1
Max replicas:                                          4
Deployment pods:                                       3 current / 3 desired
Conditions:
  Type            Status  Reason              Message
  ----            ------  ------              -------
  AbleToScale     True    ScaleDownStabilized  recent recommendations were higher than current one, applying the highest recent recommendation
  ScalingActive   True    ValidMetricFound     the HPA was able to successfully calculate a replica count from cpu resource utilization (percentage of request)
  ScalingLimited  False   DesiredWithinRange   the desired count is within the acceptable range
Events:           <none>
tsoutsou at myarch in ~/cd0354-monolith-to-microservices-project on mainxxx
```

kubectl logs <my_pod>

```
tsoutsou at myarch in ~/cd0354-monolith-to-microservices-project on main✔
± kubectl logs backend-feed-587c9c94f7-k9kj6

> udagram-api@2.0.0 dev /usr/src/app
> ts-node-dev --respawn --transpile-only ./src/server.ts

[INFO] 23:24:11 ts-node-dev ver. 1.1.8 (using ts-node ver. 9.1.1, typescript ver. 3.9.10)
Initialize database connection...
Executing (default): CREATE TABLE IF NOT EXISTS "FeedItem" ("id"   SERIAL , "caption" VARCHAR(255), "url" VARCHAR(255), "createdAt" TIMESTAMP WIT
TIME ZONE, PRIMARY KEY ("id"));
Executing (default): SELECT i.relname AS name, ix.indisprimary AS primary, ix.indisunique AS unique, ix.indkey AS indkey, array_agg(a.attnum) as
column_names, pg_get_indexdef(ix.indexrelid) AS definition FROM pg_class t, pg_class i, pg_index ix, pg_attribute a WHERE t.oid = ix.indrelid AND
t.oid AND t.relkind = 'r' and t.relname = 'FeedItem' GROUP BY i.relname, ix.indexrelid, ix.indisprimary, ix.indisunique, ix.indkey ORDER BY i.rel
server running http://localhost:8100
press CTRL+C to stop server
tsoutsou at myarch in ~/cd0354-monolith-to-microservices-project on main✔
±
```

```
tsoutsou at myarch in ~/cd0354-monolith-to-microservices-project on main✔
± kubectl logs backend-user-6d69bbb85c-2k559

> udagram-api@2.0.0 dev /usr/src/app
> ts-node-dev --respawn --transpile-only ./src/server.ts

[INFO] 23:24:12 ts-node-dev ver. 1.1.8 (using ts-node ver. 9.1.1, typescript ver. 3.9.10)
Initialize database connection...
Executing (default): CREATE TABLE IF NOT EXISTS "User" ("email" VARCHAR(255) , "passwordHash" VARCHAR(255), "createdAt" TIMESTAMP WITH TIME ZONE, "updatedAt" TIMESTAMP WITH TIME ZONE,
RIMARY KEY ("email"));
Executing (default): SELECT i.relname AS name, ix.indisprimary AS primary, ix.indisunique AS unique, ix.indkey AS indkey, array_agg(a.attnum) as column_indexes, array_agg(a.attname) A
column_names, pg_get_indexdef(ix.indexrelid) AS definition FROM pg_class t, pg_class i, pg_index ix, pg_attribute a WHERE t.oid = ix.indrelid AND i.oid = ix.indexrelid AND a.attrelid
t.oid AND t.relkind = 'r' and t.relname = 'User' GROUP BY i.relname, ix.indexrelid, ix.indisprimary, ix.indisunique, ix.indkey ORDER BY i.relname;
server running http://localhost:8100
press CTRL+C to stop server
tsoutsou at myarch in ~/cd0354-monolith-to-microservices-project on main✔
```

```
tsoutsou at myarch in ~/cd0354-monolith-to-microservices-project on main✔
± kubectl logs frontend-74fdd84b5c-jjgns
/docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform configuration
/docker-entrypoint.sh: Looking for shell scripts in /docker-entrypoint.d/
/docker-entrypoint.sh: Launching /docker-entrypoint.d/10-listen-on-ipv6-by-default.sh
10-listen-on-ipv6-by-default.sh: info: Getting the checksum of /etc/nginx/conf.d/default.conf
10-listen-on-ipv6-by-default.sh: info: Enabled listen on IPv6 in /etc/nginx/conf.d/default.conf
/docker-entrypoint.sh: Launching /docker-entrypoint.d/20-envsubst-on-templates.sh
/docker-entrypoint.sh: Launching /docker-entrypoint.d/30-tune-worker-processes.sh
/docker-entrypoint.sh: Configuration complete; ready for start up
2022/10/04 23:24:24 [notice] 1#1: using the "epoll" event method
2022/10/04 23:24:24 [notice] 1#1: nginx/1.23.1
2022/10/04 23:24:24 [notice] 1#1: built by gcc 11.2.1 20220219 (Alpine 11.2.1_git20220219)
2022/10/04 23:24:24 [notice] 1#1: OS: Linux 5.4.209-116.367.amzn2.x86_64
2022/10/04 23:24:24 [notice] 1#1: getrlimit(RLIMIT_NOFILE): 1048576:1048576
2022/10/04 23:24:24 [notice] 1#1: start worker processes
2022/10/04 23:24:24 [notice] 1#1: start worker process 32
2022/10/04 23:24:24 [notice] 1#1: start worker process 33
192.168.57.90 - - [04/Oct/2022:23:25:10 +0000] "GET / HTTP/1.0" 200 927 "-" "Expanse, a Palo Alto Networks company, searches across the global IPv4 space multiple times per day to ident
ify customers&#39; presences on the Internet. If you would like to be excluded from our scans, please send IP addresses/domains to: scaninfo@paloaltonetworks.com" "-"
```

```
┌─tsoutsou at myarch in ~/cd0354-monolith-to-microservices-project on main✔
└─± kubectl logs reverseproxy-7f956c4b77-65vgx | head -20
/docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform configuration
/docker-entrypoint.sh: Looking for shell scripts in /docker-entrypoint.d/
/docker-entrypoint.sh: Launching /docker-entrypoint.d/10-listen-on-ipv6-by-default.sh
10-listen-on-ipv6-by-default.sh: info: Getting the checksum of /etc/nginx/conf.d/default.conf
10-listen-on-ipv6-by-default.sh: info: Enabled listen on IPv6 in /etc/nginx/conf.d/default.conf
/docker-entrypoint.sh: Launching /docker-entrypoint.d/20-envsubst-on-templates.sh
/docker-entrypoint.sh: Launching /docker-entrypoint.d/30-tune-worker-processes.sh
/docker-entrypoint.sh: Configuration complete; ready for start up
2022/10/04 23:24:24 [notice] 1#1: using the "epoll" event method
2022/10/04 23:24:24 [notice] 1#1: nginx/1.23.1
2022/10/04 23:24:24 [notice] 1#1: built by gcc 11.2.1 20220219 (Alpine 11.2.1_git20220219)
2022/10/04 23:24:24 [notice] 1#1: OS: Linux 5.4.209-116.367.amzn2.x86_64
2022/10/04 23:24:24 [notice] 1#1: getrlimit(RLIMIT_NOFILE): 1048576:1048576
2022/10/04 23:24:24 [notice] 1#1: start worker processes
2022/10/04 23:24:24 [notice] 1#1: start worker process 31
```