KnFun
having fun with Knative's *kn* client

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github.com/maximilien/knfun

Knative / micro-services / functions demo

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demo goals

- **micro-services**
  - creating micro-services (micro-functions) that you can test locally
  - creating docker images for your micro-functions
  - running your micro-service as a function on Knative

- **serverless**
  - using `kn` to create, delete, and update services or functions
  - using `kn` to revise, scale functions
  - using `kn` to debug and traffic split across functions

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demo sketch

- **TwitterFn search function (via Twitter APIs)**
  in: hashtags or string
  in: count - max number of tweets
  out: image URLs from recent tweets

- **WatsonFn image analysis function (via Watson APIs)**
  in: image URLs
  out: image features with probability

- **SummaryFn function**
  - *in:* search string and TwitterFn and WatsonFn
  - *out*: HTML page displaying summary

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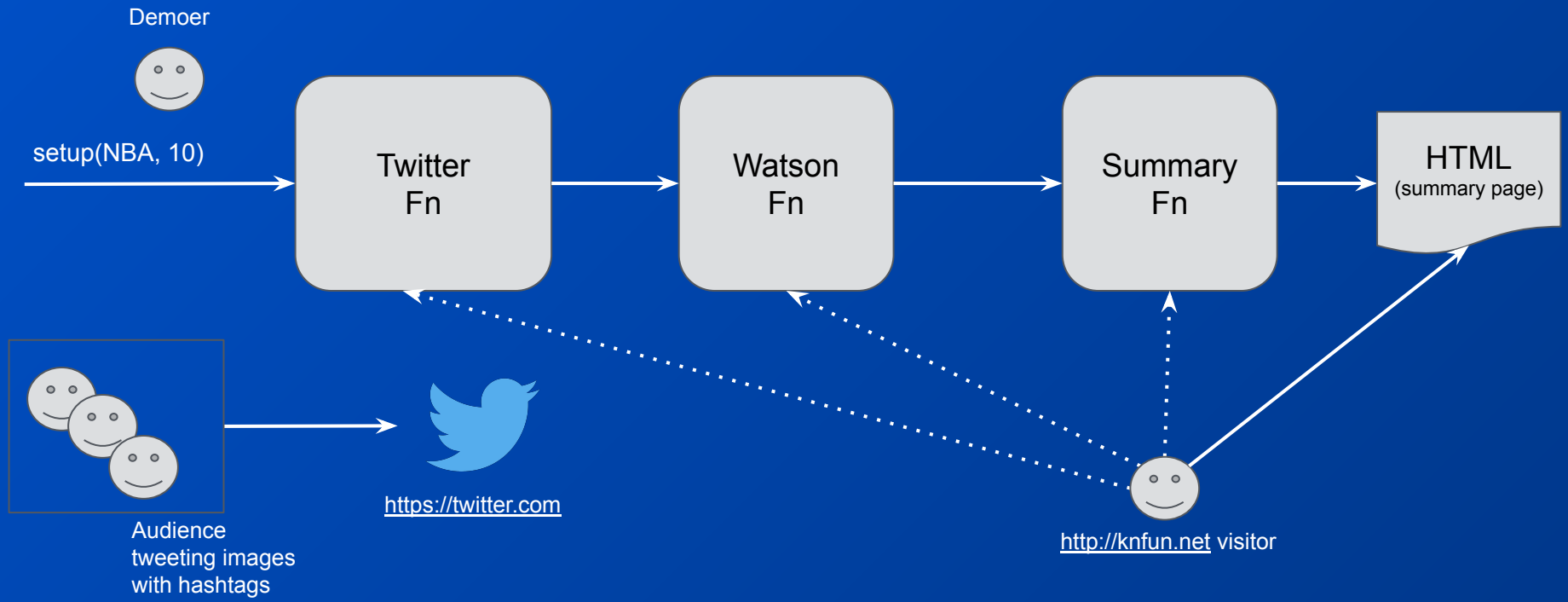
demo sketch (*cont.*)



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demo steps - README.md

- **build**

```
$ git clone git:github.com/maximilien/knfun.git
$ cd knfun
$ ./hack/build.sh
```

- **test**

```
$ ./twitter-fn search NBA -c 10 -o json -S -p 8080 --twitter-api-key ...
$ ./watson-fn vr classify http://<image>.jpg -o json -S -p 8081 --watson-api-key
$ ./summary-fn NBA -c 10 -S -p 8082 --twitter-fn-url … --watson-fn-url ...
```

- **image**

```
$ docker build -v -f ./funcs/twitter/Dockerfile -u drmax/twitter-fn
$ docker push drmax/twitter-fn
    ...
```

- **functions**

```
$ ./kn service create twitter-fn --image docker.io/drmax/twitter-fn --env
twitter-api-key ...
…
```

- **revisions, scaling, and traffic splitting**

```
$ ./kn service update watson-fn --concurrency-target 10
…
```

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demo

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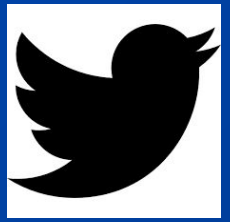

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backup

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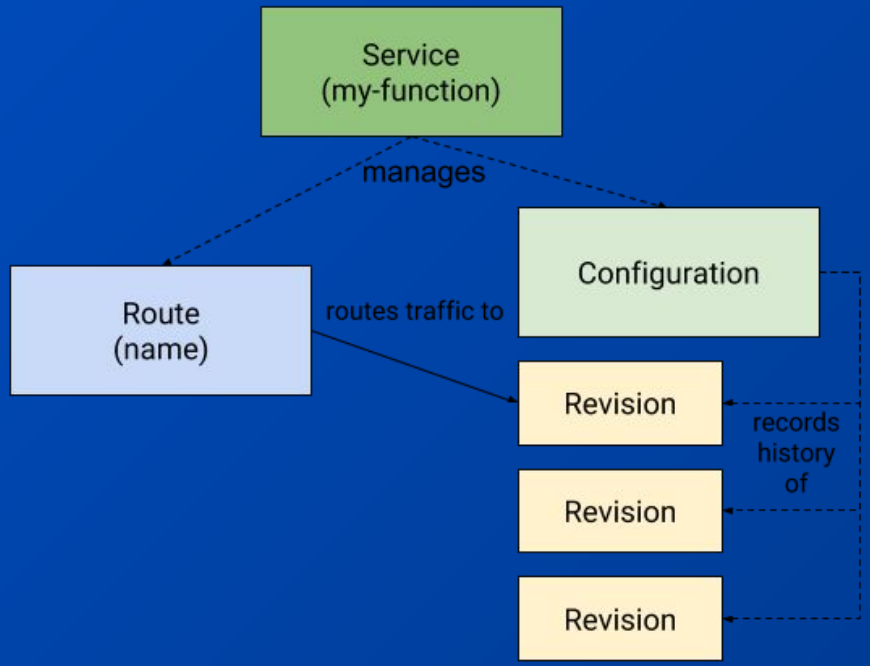
Knative overview



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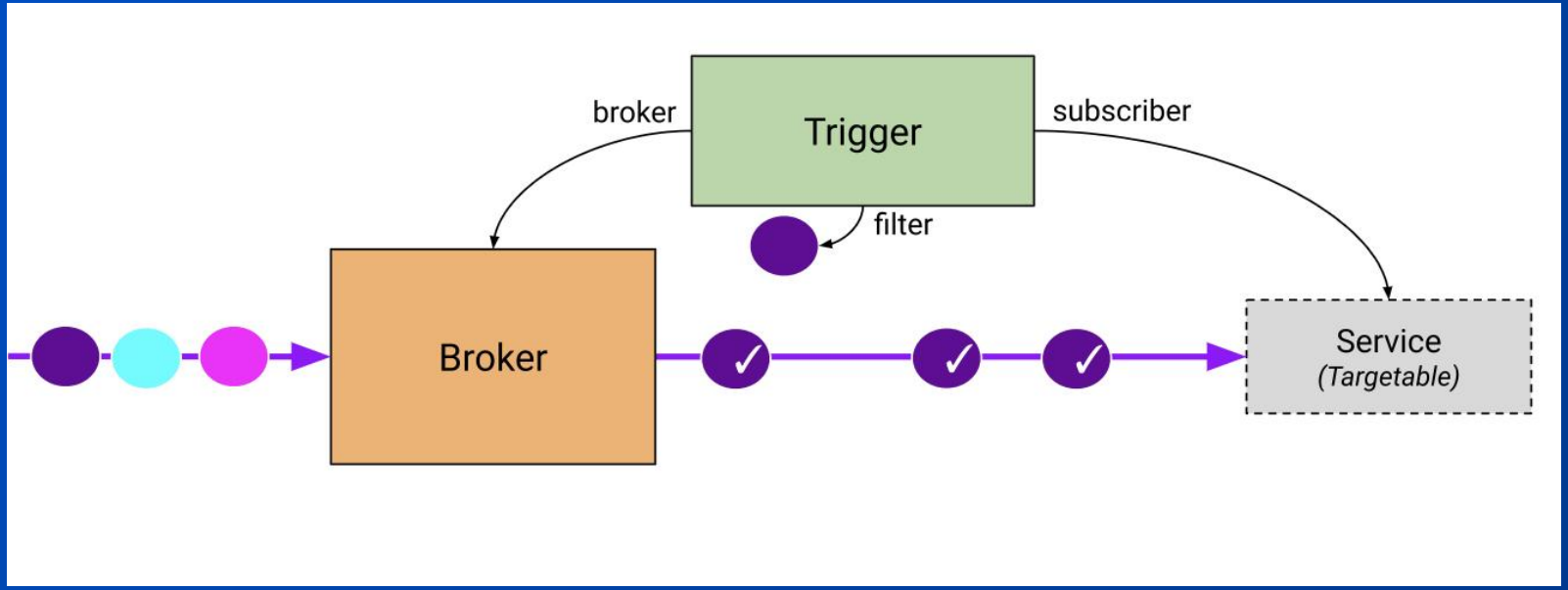
Knative overview (*cont.*)



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