Sprint-4 Project Development Phase

Date	19 November 2022
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Project Name	Project - Personal Expense Tracker

Sprint 3 details:

- Created the docker image for frontend and backend
- Uploaded the image to the docker hub
- Created kubernetes cluster in IBM Cloud
- Created the pods from the image Created service for the pod Image Links:
 - o Frontend:

https://hub.docker.com/repository/docker/swathy2412/spency-frontend

o Backend:

https://hub.docker.com/repository/docker/swathy2412/spency-api

o Dockerfile:

Backend:

```
FROM python:3.8-slim-buster

WORKDIR /app

COPY . .

RUN apt-get update && apt-get install -y gcc libxml2 libxslt-dev
```

```
RUN apt-get install -y vim

RUN python -m pip install --upgrade pip

RUN pip3 install -r requirements.txt

CMD ["python3", "-m", "gunicorn", "-w", "4", "--thread", "2", "-b", "0.0.0.0:5000", "wsgi:app"]
```

Frontend:

```
# syntax=docker/dockerfile:1
FROM node:16
WORKDIR /usr/src/app
COPY package*.json ./
RUN npm ci --only=production
COPY . .
```

```
CMD [ "npm", "start" ]
```

Kubernetes yaml:

apiVersion: apps/v1

```
kind: Deployment
metadata:
name: spency-api-deployment
labels:
  app: spency-api
spec:
replicas: 1
selector:
  matchLabels:
    app: spency-api
 template:
  metadata:
     labels:
      app: spency-api
   spec:
     containers:
     - name: spency-api
      image: swathy2412/spency-api:stable-1.0.0 imagePullPolicy:
      Always
      ports:
       - containerPort: 5000
```

```
protocol: TCP
---
apiVersion: apps/v1
kind: Deployment
metadata:
name: spency-frontend-deployment
```

```
labels:
  app: spency-frontend
spec:
replicas: 1
selector:
  matchLabels:
    app: spency-frontend
 template:
  metadata:
    labels:
      app: spency-frontend
   spec:
     containers:
     - name: spency-frontend
       image: swathy2412/spency:stable-1.0.0
      imagePullPolicy: Always
      ports:
       - containerPort: 3000
        protocol: TCP
```

```
apiVersion: v1
kind: Service
metadata:
name: spency-api-service
labels:
    app: spency-api-service
spec:

ports:
```

```
- port: 5000
   protocol: TCP
   targetPort: 5000
 selector:
  app: spency-api
 type: NodePort
apiVersion: v1
kind: Service
metadata:
name: spency-frontend-service
labels:
  app: spency-frontend-service
spec:
ports:
 - port: 3000
```

```
protocol: TCP
  targetPort: 3000

selector:
  app: spency-frontend

type: NodePort
```

Screenshot







