

Weather App 3.0

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Index

1. App Shots	3
1.1. Default Screen	3
1.2. Can search City	3
1.3. Options	4
1.4. Chart	4
2. Diagrams	5
2.1. Microservice Architecture	5
3. Technology Stack & Tools Used	5
3.1. UI	5
3.2. Backend	5
4. Project Structure	6
4.1. Weather (Backend) Service	6
4.2. Weather UI Service	8
5. Design Patterns Used	9
5.1. Factory Design Pattern	9
6. Deployment	9
6.1. Weather Service	9
6.1.1. Code Base	9
6.1.1.1. Git Url	9
6.1.2. Clone code	9
6.1.3. Dockerfile	9
6.1.4. Command	10
6.1.4.1. Build docker image	10
6.2. Weather-ui Service	10
6.2.1. Code Base	10
6.2.1.1. Git Url	10
6.2.2. Clone code	10
6.2.3. Dockerfile	10
6.2.4. Command	11
6.2.4.1. Build docker image	11
7. Deployment Script	11
7.1. Deploy using docker	11
8. Swagger Document	11

1. App Shots

1.1. Default Screen

Weather App

City

Date ↓	Day_Min_Temp	Day_Max_Temp	Wind_Speed	Description	Suggestion	
Mon Nov 16 1970 00:00:00...	296.7790625	296.7790625	3.2	few clouds	Carry umbrella,	⋮
Sun Nov 15 1970 00:00:00...	292.662109375	292.662109375	2.89	overcast clouds	It's too windy, w	⋮
Sat Nov 14 1970 00:00:00...	293.09078125	293.09078125	2.9	scattered clouds	It's too windy, w	⋮

1 to 3 of 6 |< < Page 1 of 2 > >|

1.2. Can search City

Weather App

City
i

indore

raipur

Date ↓	Day_Min_Temp	Day_Max_Temp	Wind_Speed	Description	Suggestion	
Mon Nov 16 1970 00:00:00...	296.7790625	296.7790625	3.2	few clouds	Carry umbrella,	⋮
Sun Nov 15 1970 00:00:00...	292.662109375	292.662109375	2.89	overcast clouds	It's too windy, w	⋮
Sat Nov 14 1970 00:00:00...	293.09078125	293.09078125	2.9	scattered clouds	It's too windy, w	⋮

1 to 3 of 6 |< < Page 1 of 2 > >|

1.3. Options

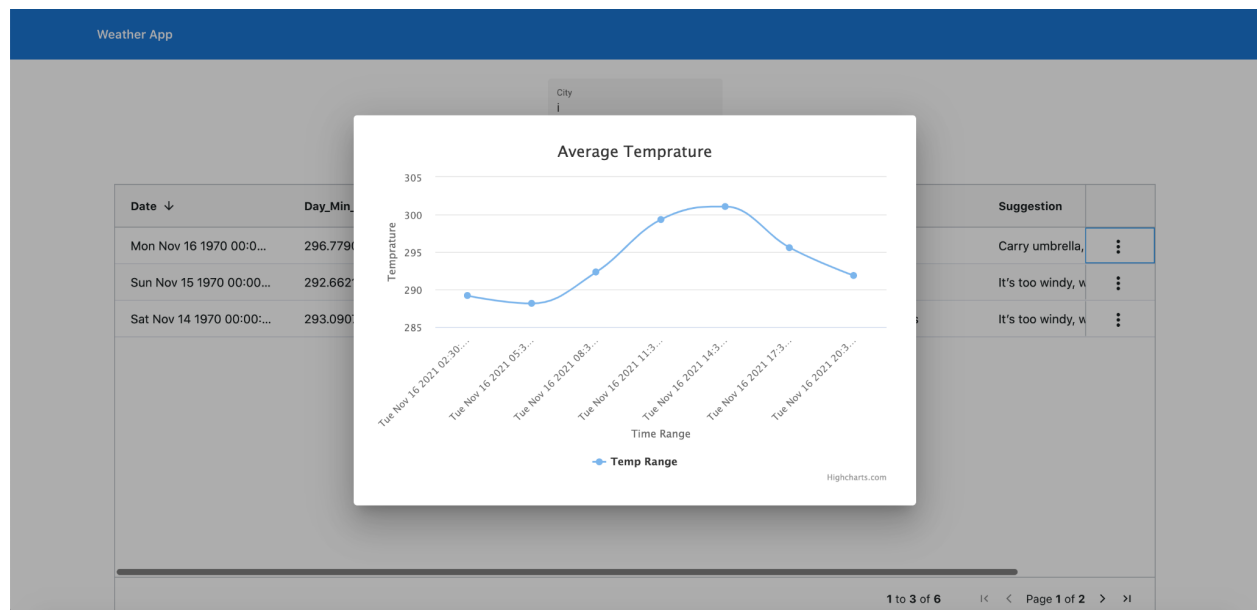
Weather App

City
i

Date ↓	Day_Min_Temp	Day_Max_Temp	Wind_Speed	Description	Suggestion	
Mon Nov 16 1970 00:00:00...	296.7790625	296.7790625	3.2	few clouds	Carry umbrella,	⋮
Sun Nov 15 1970 00:00:00...	292.662109375	292.662109375	2.89	overcast clouds	It's too windy, w	☖ Temperature
Sat Nov 14 1970 00:00:00...	293.09078125	293.09078125	2.9	scattered clouds	It's too windy, w	⋮

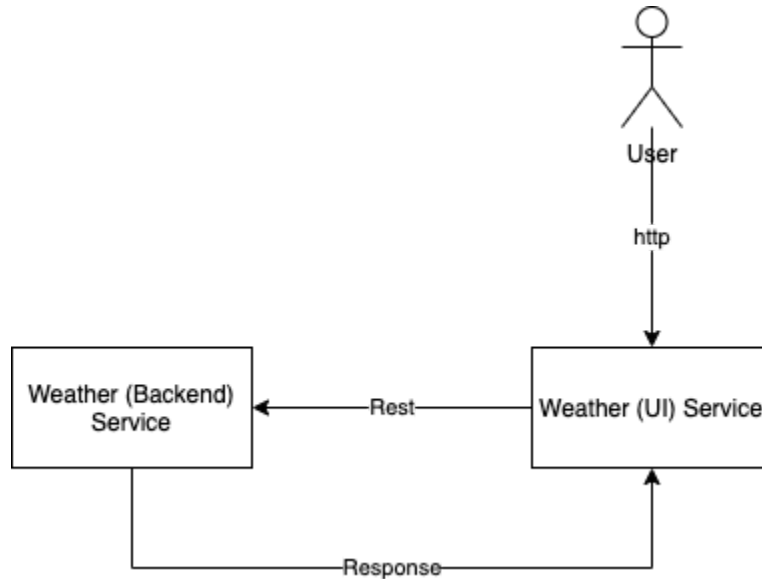
1 to 3 of 6Page 1 of 2

1.4. Chart



2. Diagrams

2.1. Microservice Architecture



3. Technology Stack & Tools Used

3.1. UI

Tech / Tools	Version
Angular	13
npm	8.1.0

3.2. Backend

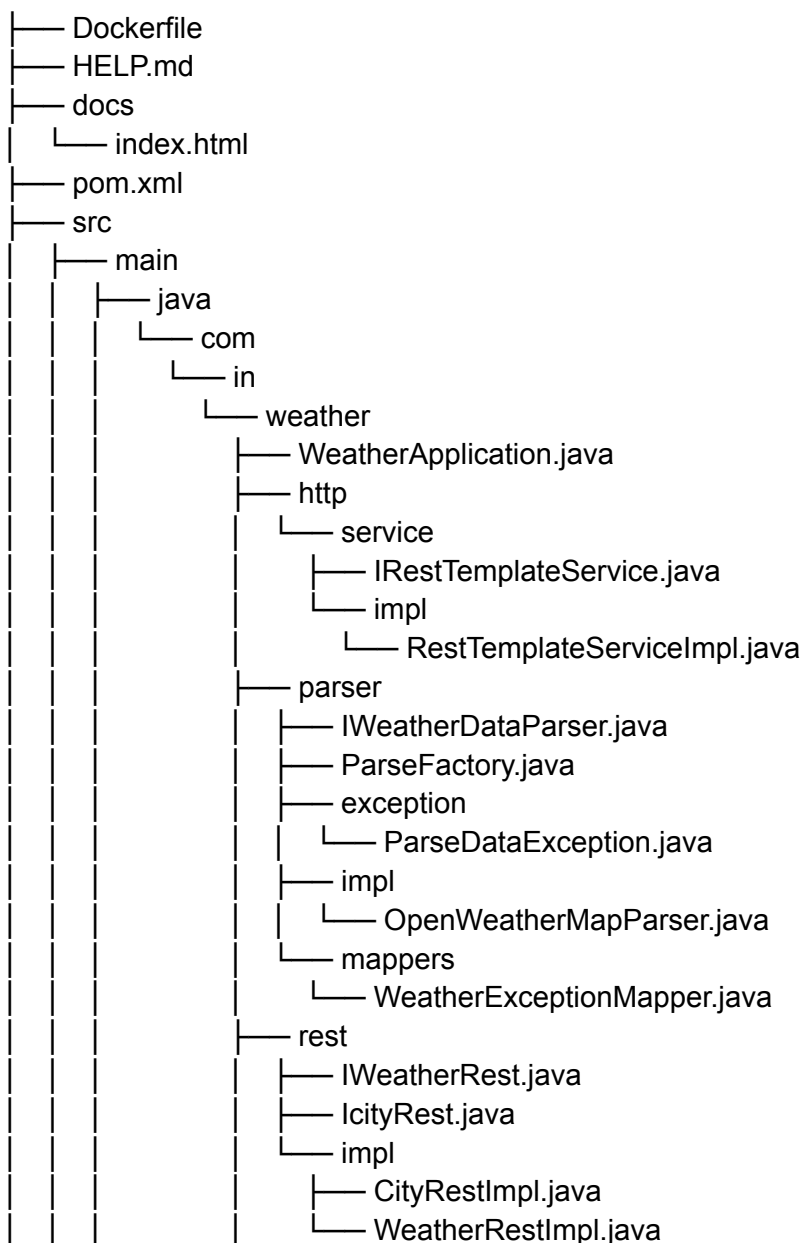
Tech / Tools	Version
Java	1.8
Spring Boot	2.5.6

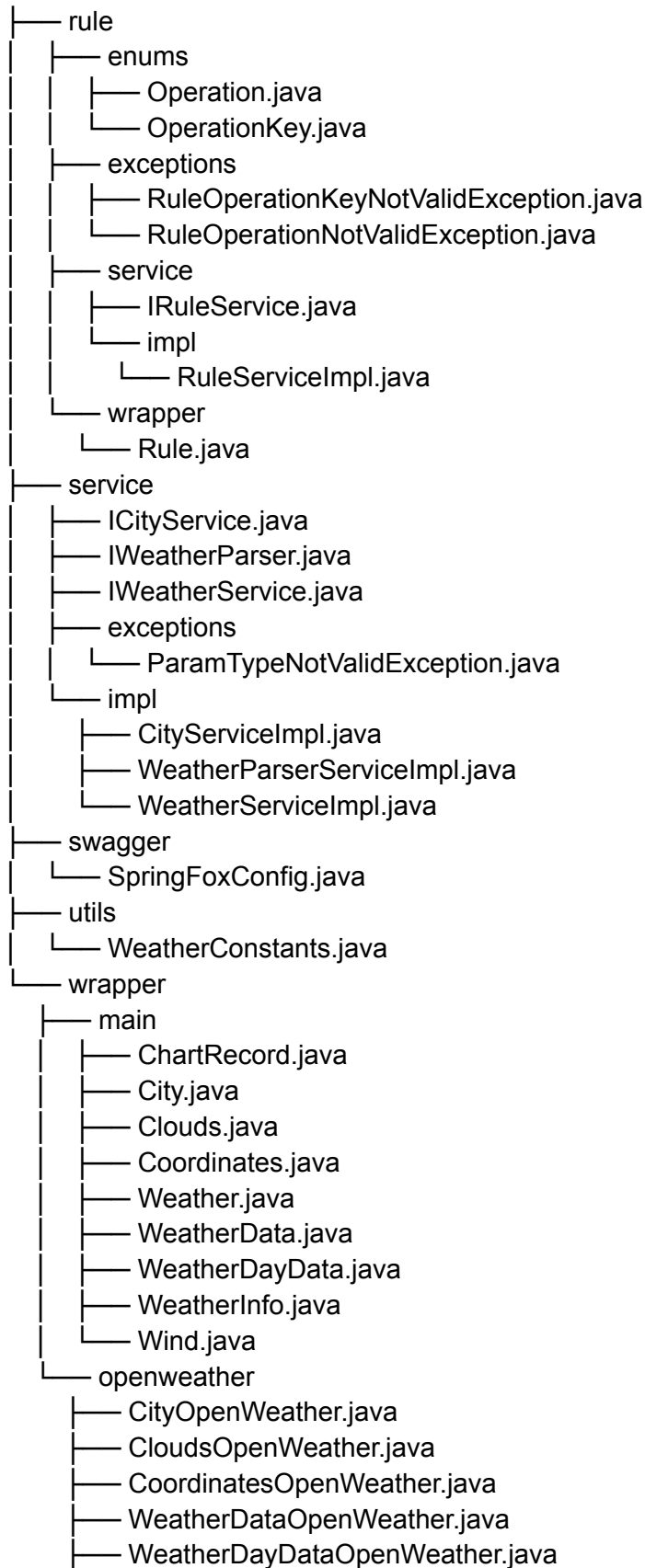
Deployment

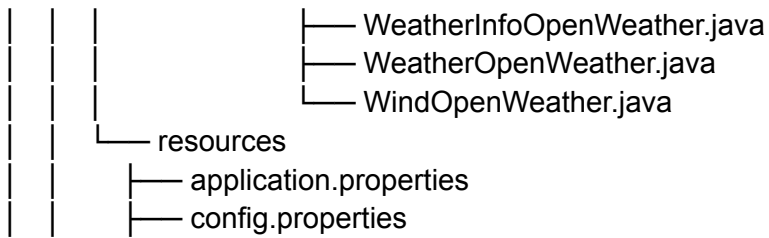
Tech / Tools	Version
Docker	20.10.8

4. Project Structure

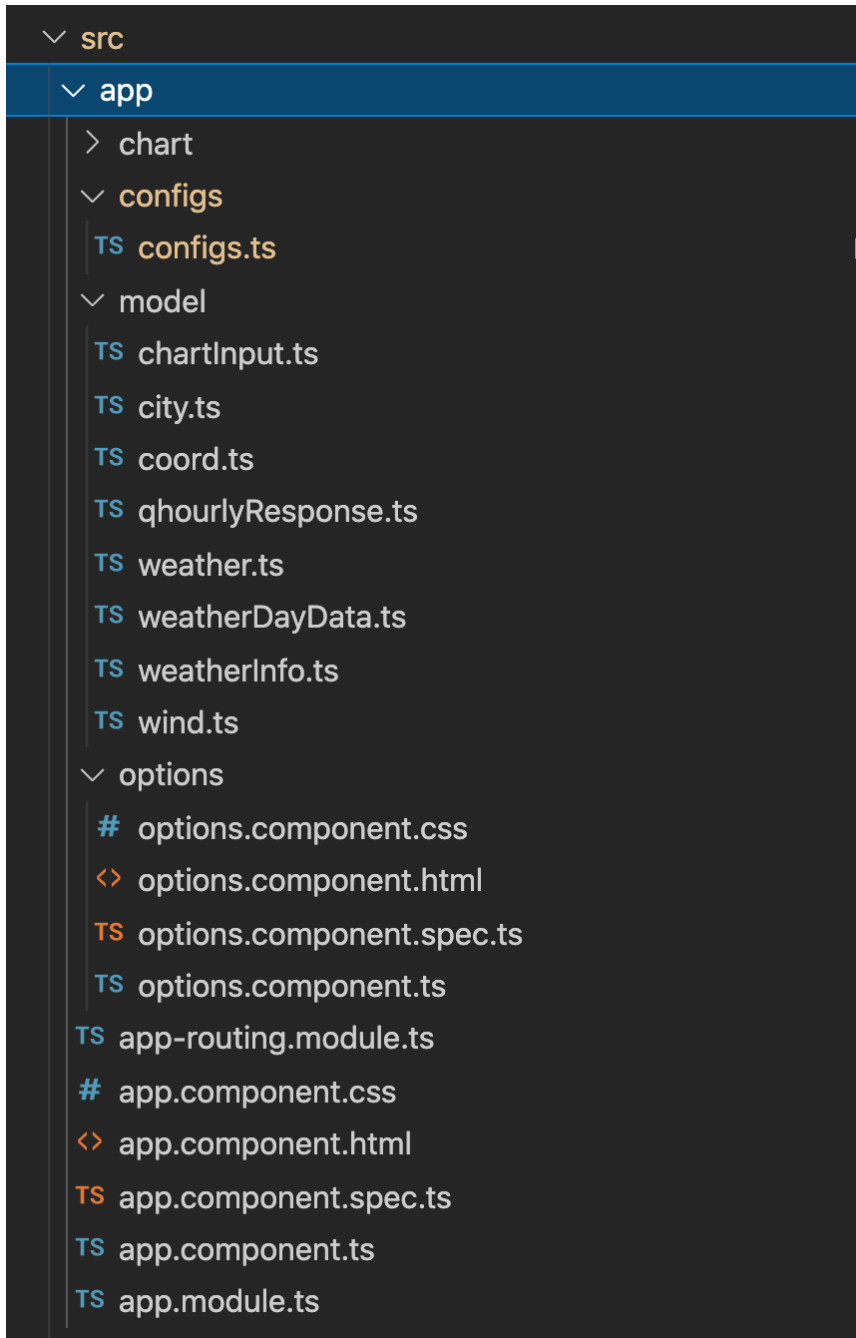
4.1. Weather (Backend) Service





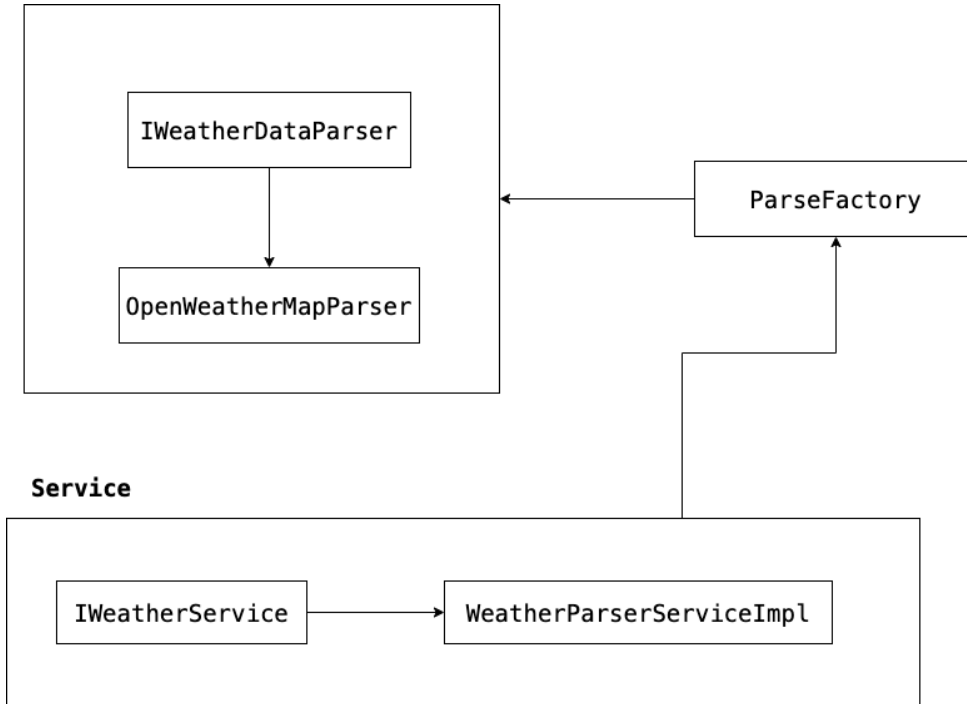


4.2. Weather UI Service



5. Design Patterns Used

5.1. Factory Design Pattern



6. Deployment

6.1. Weather Service

6.1.1. Code Base

6.1.1.1. Git Url

<https://github.com/ersanilbagzai/weather.git>

6.1.2. Clone code

git clone <https://github.com/ersanilbagzai/weather.git>

6.1.3. Dockerfile

```
FROM openjdk:8-jre-alpine3.9
```

```
RUN mkdir -p /opt/weather/  
COPY target/weather-0.0.1-SNAPSHOT.jar /opt/weather/  
  
CMD ["java", "-jar", "/opt/weather/weather-0.0.1-SNAPSHOT.jar"]
```

6.1.4. Command

6.1.4.1. Build docker image

```
docker build . --tag=sanilbagzai/weather:3.0
```

6.2. Weather-ui Service

6.2.1. Code Base

6.2.1.1. Git Url

<https://github.com/ersanilbagzai/weather.git>

6.2.2. Clone code

```
git clone https://github.com/ersanilbagzai/weather.git
```

6.2.3. Dockerfile

```
# Stage 1  
FROM node:16-alpine3.12 as build-step  
RUN mkdir -p /app  
WORKDIR /app  
COPY package.json /app  
RUN npm install  
COPY . /app  
RUN npm run build --prod  
# Stage 2  
FROM nginx:1.17.1-alpine  
COPY --from=build-step /app/dist/sample-ui /usr/share/nginx/html  
EXPOSE 80  
CMD ["nginx", "-g", "daemon off;"]
```

6.2.4. Command

6.2.4.1. Build docker image

```
docker build . --tag=sanilbagzai/weather-ui:3.0
```

7. Deployment Script

7.1. Deploy using docker

```
docker run -dit -p 9006:9006 --name=weather sanilbagzai/weather:3.0

docker run -dit -p 8080:80 --link weather:weather
sanilbagzai/weather-ui:3.0
```

Run the deployment script using
sh deployUsingDocker.sh

After running the script go to browser and access the app using following url
<http://localhost:8080>

8. Swagger Document

Available at the following link
<https://github.com/ersanilbagzai/weather/blob/main/weather/docs/index.html>