

Prerequisites

- Hardware
 - RAM: 8GB at least
 - 64 bit processor
 - BIOS-level hardware virtualization support must be enabled in the BIOS settings
- Software
 - Windows 10 64 bits
 - Docker Desktop 4.16.3 with WSL 2 BackEnd
 - <https://docs.docker.com/desktop/install/windows-install/>

Install environment

1. Generate the docker images executing the next commands in the corresponding Dockerfile project folder

- a. `docker build -t apiweatherconfig .`

```
\knowledgeboost-challenge\apiweatherconfig>docker build -t apiweatherconfig .
```

- b. `docker build -t apiweathergateway .`

```
\knowledgeboost-challenge\apiweathergateway>docker build -t apiweathergateway .
```

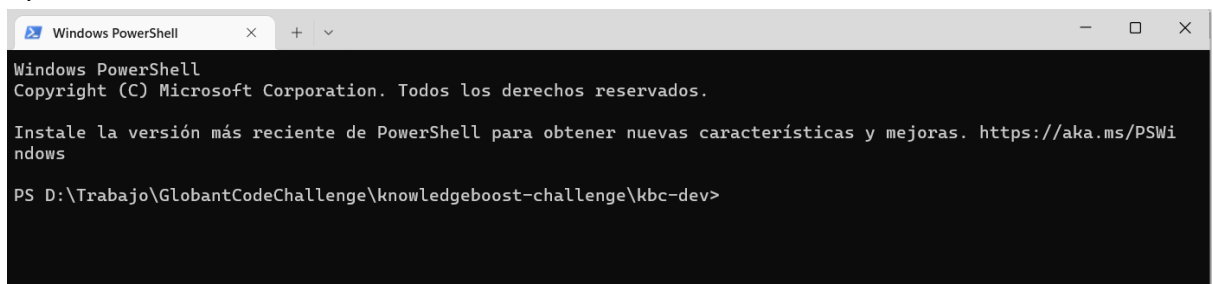
- c. `docker build -t apiweathersecurity .`

```
\knowledgeboost-challenge\apiweathersecurity>docker build -t appweathersecurity .
```

- d. `docker build -t apiweatherservice .`

```
\knowledgeboost-challenge\apiweatherservice>docker build -t apiweatherservice .
```

2. Open a terminal in the kbc-dev folder

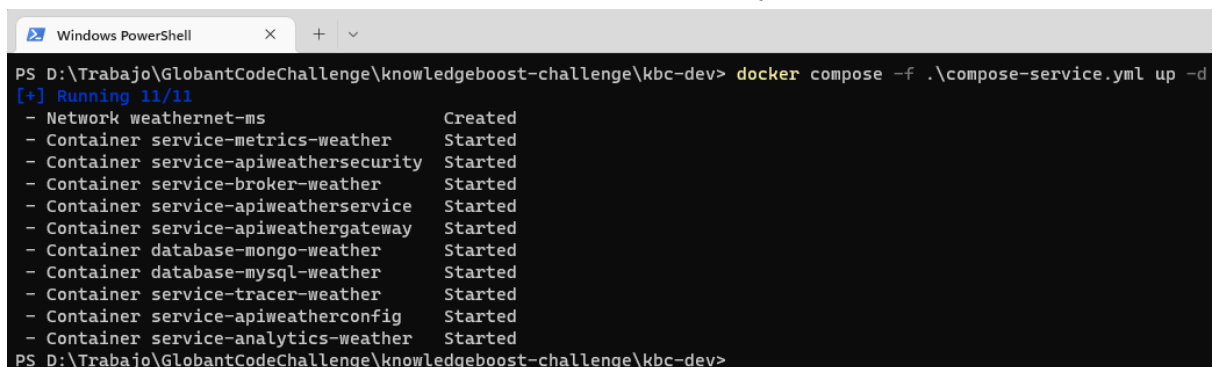


```
Windows PowerShell
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Instale la versión más reciente de PowerShell para obtener nuevas características y mejoras. https://aka.ms/PSWindows

































PS D:\Trabajo\GlobantCodeChallenge\knowledgeboost-challenge\kbc-dev>
```

3. Execute command `docker compose -f .\compose-service.yml up -d`



```
PS D:\Trabajo\GlobantCodeChallenge\knowledgeboost-challenge\kbc-dev> docker compose -f .\compose-service.yml up -d
[+] Running 11/11
 - Network weathernet-ms          Created
 - Container service-metrics-weather Started
 - Container service-apiweathersecurity Started
 - Container service-broker-weather Started
 - Container service-apiweatherservice Started
 - Container service-apiweathergateway Started
 - Container database-mongo-weather Started
 - Container database-mysql-weather Started
 - Container service-tracer-weather Started
 - Container service-apiweatherconfig Started
 - Container service-analytics-weather Started
PS D:\Trabajo\GlobantCodeChallenge\knowledgeboost-challenge\kbc-dev>
```

4. Verify in docker desktop that all containers are alive

kbc-dev		kbc-prod		kbc-stg		kbc-test		kbc-qa		kbc-qa2		kbc-qa3		kbc-qa4		kbc-qa5		kbc-qa6		kbc-qa7		kbc-qa8		kbc-qa9		kbc-qa10		kbc-qa11		kbc-qa12		kbc-qa13		kbc-qa14		kbc-qa15		kbc-qa16		kbc-qa17		kbc-qa18		kbc-qa19		kbc-qa20		kbc-qa21		kbc-qa22		kbc-qa23		kbc-qa24		kbc-qa25		kbc-qa26		kbc-qa27		kbc-qa28		kbc-qa29		kbc-qa30		kbc-qa31		kbc-qa32		kbc-qa33		kbc-qa34		kbc-qa35		kbc-qa36		kbc-qa37		kbc-qa38		kbc-qa39		kbc-qa40		kbc-qa41		kbc-qa42		kbc-qa43		kbc-qa44		kbc-qa45		kbc-qa46		kbc-qa47		kbc-qa48		kbc-qa49		kbc-qa50		kbc-qa51		kbc-qa52		kbc-qa53		kbc-qa54		kbc-qa55		kbc-qa56		kbc-qa57		kbc-qa58		kbc-qa59		kbc-qa60		kbc-qa61		kbc-qa62		kbc-qa63		kbc-qa64		kbc-qa65		kbc-qa66		kbc-qa67		kbc-qa68		kbc-qa69		kbc-qa70		kbc-qa71		kbc-qa72		kbc-qa73		kbc-qa74		kbc-qa75		kbc-qa76		kbc-qa77		kbc-qa78		kbc-qa79		kbc-qa80		kbc-qa81		kbc-qa82		kbc-qa83		kbc-qa84		kbc-qa85		kbc-qa86		kbc-qa87		kbc-qa88		kbc-qa89		kbc-qa90		kbc-qa91		kbc-qa92		kbc-qa93		kbc-qa94		kbc-qa95		kbc-qa96		kbc-qa97		kbc-qa98		kbc-qa99		kbc-qa100	
	service-apiweatherconfig	8d304102cb36		apiweatherconfig	Running	83.83		1 minute ago		service-metrics-weather	b2a6e52e8beb		prom/prometheus.v2.31.1	Running	19090.9090		1 minute ago		database-mysql-weather	628218a410d0		mysql.8.0.26	Running	13306.3306		33060.33060		1 minute ago		service-apiweathersecurity	250de5e77b85		apiweathersecurity	Running	81.81		53 seconds ago		service-tracer-weather	71da0ee94310		opentracing/zipkin.2	Running	19411.9411		57 seconds ago		database-mongo-weather	57015a9b2c04		mongo.5.0.2	Running	27017.27017		1 minute ago		service-apiweatherservice	b4b4859b27dc		apiweatherservice	Running	82.82		42 seconds ago		service-apiweathergateway	67f6939b2da		apiweathergateway	Running	5000.5000		58 seconds ago		service-broker-weather	0c3bb0303411		johnnyark/kafka-zookeeper.2.6.0	Running	2181.2181		9092.9092		56 seconds ago		service-analytics-weather	036f51fc4dfa		grafana/grafana.8.2.3	Running	13000.3000		57 seconds ago																																																																																																																		

5. Verify in the mysql container that follow components were created:
 - a. **db_security** database
 - i. **access** table
 1. one record

The screenshot displays the Microsoft Access application interface. On the left, the Navigation Pane shows the project structure: 'localhost - localhost:13306' contains a 'Databases' folder, which includes 'db_security'. Under 'db_security', there are 'Tables' and 'Views'. The 'Tables' folder is expanded, showing a table named 'access'. The main window has tabs for 'Propiedades', 'Datos', and 'Diagrama ER'. The 'Datos' tab is active, showing the data view of the 'access' table. A filter bar at the top of the data view says 'Enter a SQL expression to filter results (use Ctrl+Space)'. Below it, a grid shows one record:

	userid	fullname	username	password
1	1	Raul Vargas	rvargasm	123456

6. Go to [endpoints.pdf](#) to see how to consume the services.