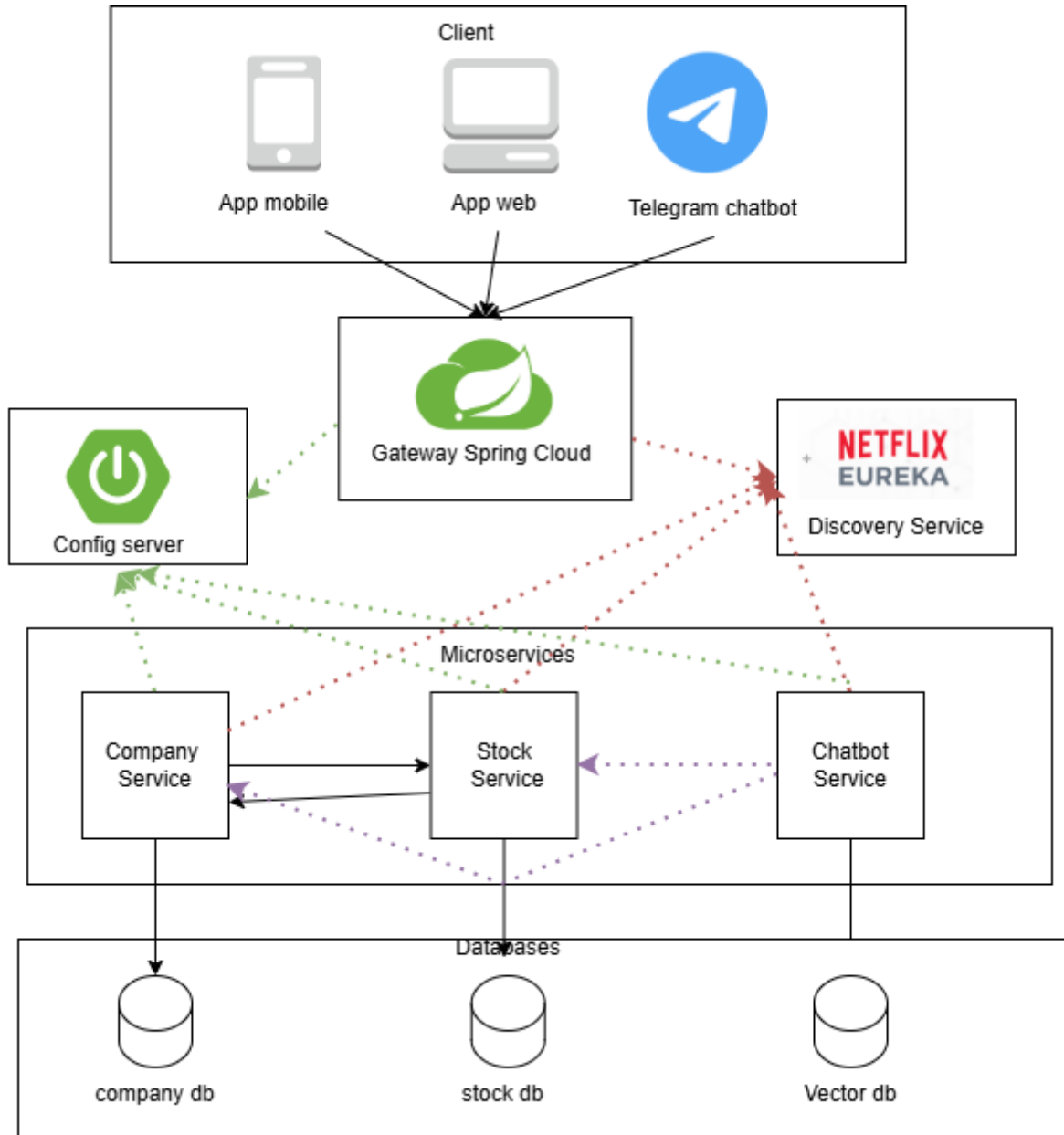

*Test ADRIA : Système Distribué de Gestion de Cotations
Boursières*

Fait par :

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1 . Architecture Technique du Projet

1.1 Vue d'Ensemble de l'Architecture :



1.2 Stack Technologique

- **Backend:** Spring Boot 3, Spring Cloud, Java 17

- **Frontend Web:** React 18/Angular 16, TypeScript
- **Mobile:** Flutter 3, Dart
- **Base de données:** PostgreSQL, Redis (cache)
- **Service Discovery:** Eureka Server
- **API Gateway:** Spring Cloud Gateway
- **Sécurité:** Keycloak, OAuth2, JWT
- **Communication:** OpenFeign, Resilience4J
- **IA:** LangChain, MCP Protocol
- **DevOps:** Docker, Jenkins, Kubernetes

1.3. Développement des Services Discovery et Gateway

a. Discovery Service :


Configuration principale:

```
@SpringBootApplication
@EnableEurekaServer
public class DiscoveryServiceApplication {
    public static void main(String[] args) {
        SpringApplication.run(DiscoveryServiceApplication.class, args);
    }
}
```

Fichier application.yml:

```
server:
  port: 8761

eureka:
  client:
    register-with-eureka: false
    fetch-registry: false
  server:
    enable-self-preservation: false
```


HOME LAST 1000 SINCE STARTUP

System Status

Environment	test	Current time	2025-11-17T11:35:36 +0100
Data center	default	Uptime	01:33
		Lease expiration enabled	false
		Renews threshold	8
		Renews (last min)	8

EMERGENCY! EUREKA MAY BE INCORRECTLY CLAIMING INSTANCES ARE UP WHEN THEY'RE NOT. RENEWALS ARE LESSER THAN THRESHOLD AND HENCE THE INSTANCES ARE NOT BEING EXPIRED JUST TO BE SAFE.

DS Replicas

Instances currently registered with Eureka

Application	AMIs	Availability Zones	Status
COMPANY-SERVICE	n/a (1)	(1)	UP (1) - localhost:company-service:8083
CONFIG-SERVICE	n/a (1)	(1)	UP (1) - localhost:config-service:8888
GATEWAY	n/a (1)	(1)	UP (1) - Gateway:8090
STOCK-SERVICE	n/a (1)	(1)	UP (1) - localhost:stock-service:8084

General Info

Name	Value
total-avail-memory	96mb
num-of-cpus	12
current-memory-usage	37mb (38%)
server-up-time	01:33
registered-replicas	
localhost:8761	

b. Gateway Service

Configuration des routes:

```
spring:
  cloud:
    gateway:
      routes:
        - id: company-service
          uri: lb://COMPANY-SERVICE
          predicates:
            - Path=/api/companies/**
          filters:
            - name: CircuitBreaker
              args:
                name: companyService
                fallbackUri: forward:/fallback/company

        - id: stock-service
          uri: lb://STOCK-SERVICE
          predicates:
            - Path=/api/stocks/**
```

filters:

- name: CircuitBreaker

args:

name: stockService

fallbackUri: forward:/fallback/stock

b. Test des services:

Tester les APIs :

/companies :

1. Ajouter une entreprise

The screenshot shows a REST client interface with the following details:

- URL:** http://localhost:8090/companies
- Method:** POST
- Body (raw):**

```
1 {  
2   "name": "Acme Corp",  
3   "ipoDate": "2024-01-01",  
4   "initialPrice": 100.50,  
5   "domain": "IT"  
6 }
```
- Response:** 200 OK, 1.55 s, 201 B
- Response Body (JSON):**

```
1 {  
2   "id": 1,  
3   "name": "Acme Corp",  
4   "ipoDate": "2024-01-01",  
5   "currentPrice": 100.5,  
6   "domain": "IT"  
7 }
```

2. Modifier une entreprise:

HTTP client interface showing a PUT request to `http://localhost:8090/companies/2/price`. The request body is a JSON object:

```
1 {
2   "price": 112.75
3 }
```

The response is a 200 OK status, indicating the update was successful. The response body is a JSON object:

```
1 {
2   "id": 2,
3   "name": "Maroc Telecom",
4   "ipoDate": "2024-11-21",
5   "currentPrice": 112.75,
6   "domain": "Telecom"
7 }
```

3. Afficher les entreprises :

HTTP client interface showing a POST request to `http://localhost:8090/companies`. The request body is a JSON object:

```
1 {
2   "name": "Acme Corp",
3   "ipoDate": "2024-01-01",
4   "initialPrice": 100.50,
5   "domain": "IT"
6 }
```

The response is a 200 OK status, indicating the company was successfully added. The response body is a JSON object:

```
1 {
2   "id": 1,
3   "name": "Acme Corp",
4   "ipoDate": "2024-01-01",
5   "currentPrice": 100.5,
6   "domain": "IT"
7 }
```

/stocks :

1.Ajouter une cotation :

HTTP <http://localhost:8090/companies> Save Share

POST <http://localhost:8090/companies> Send

Params Authorization Headers (8) **Body** Scripts Settings Cookies Beautify

☐ none ☐ form-data ☐ x-www-form-urlencoded ☒ raw ☐ binary ☐ GraphQL JSON

```
1 {
2   "name": "Acme Corp",
3   "ipoDate": "2024-01-01",
4   "initialPrice": 100.50,
5   "domain": "IT"
6 }
```

Body Cookies Headers (3) Test Results 200 OK 1.55 s 201 B

{ JSON Preview Visualize

```
1 {
2   "id": 1,
3   "name": "Acme Corp",
4   "ipoDate": "2024-01-01",
5   "currentPrice": 100.5,
6   "domain": "IT"
7 }
```

2 .Afficher les cotations :

HTTP <http://localhost:8090/stocks> Save Share

GET <http://localhost:8090/stocks> Send

Params Authorization Headers (6) **Body** Scripts Settings Cookies

☒ none ☐ form-data ☐ x-www-form-urlencoded ☐ raw ☐ binary ☐ GraphQL

This request does not have a body

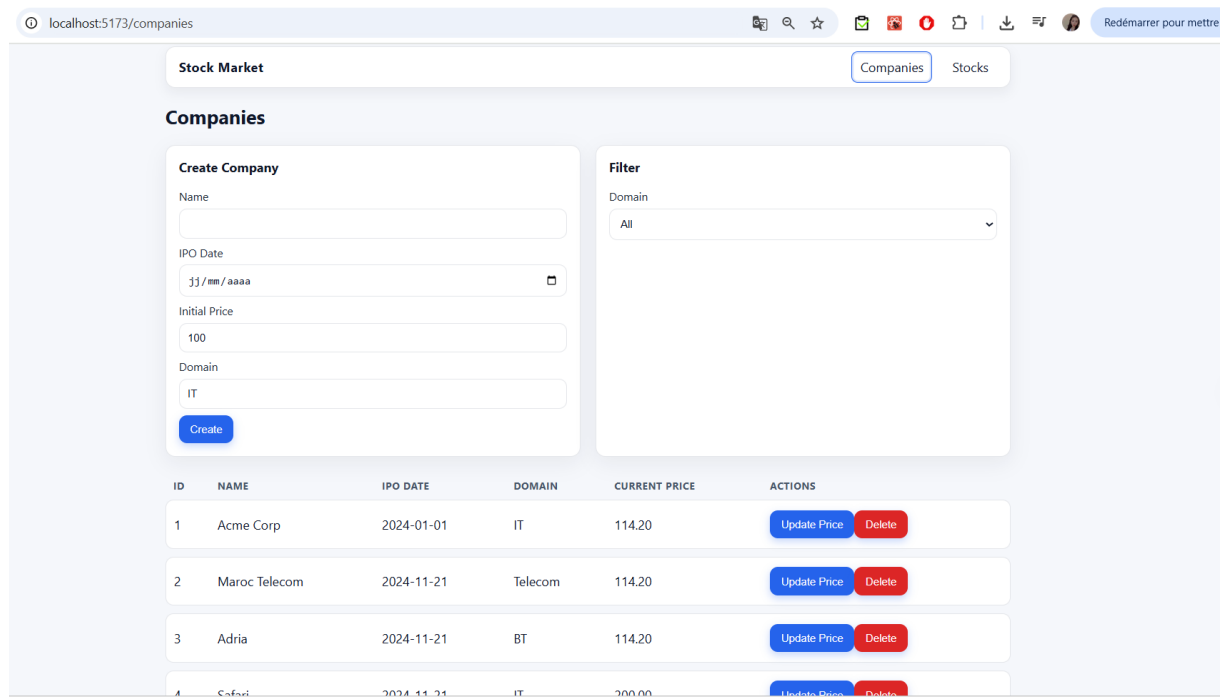
Body Cookies Headers (3) Test Results 200 OK 50 ms 668 B

{ JSON Preview Visualize

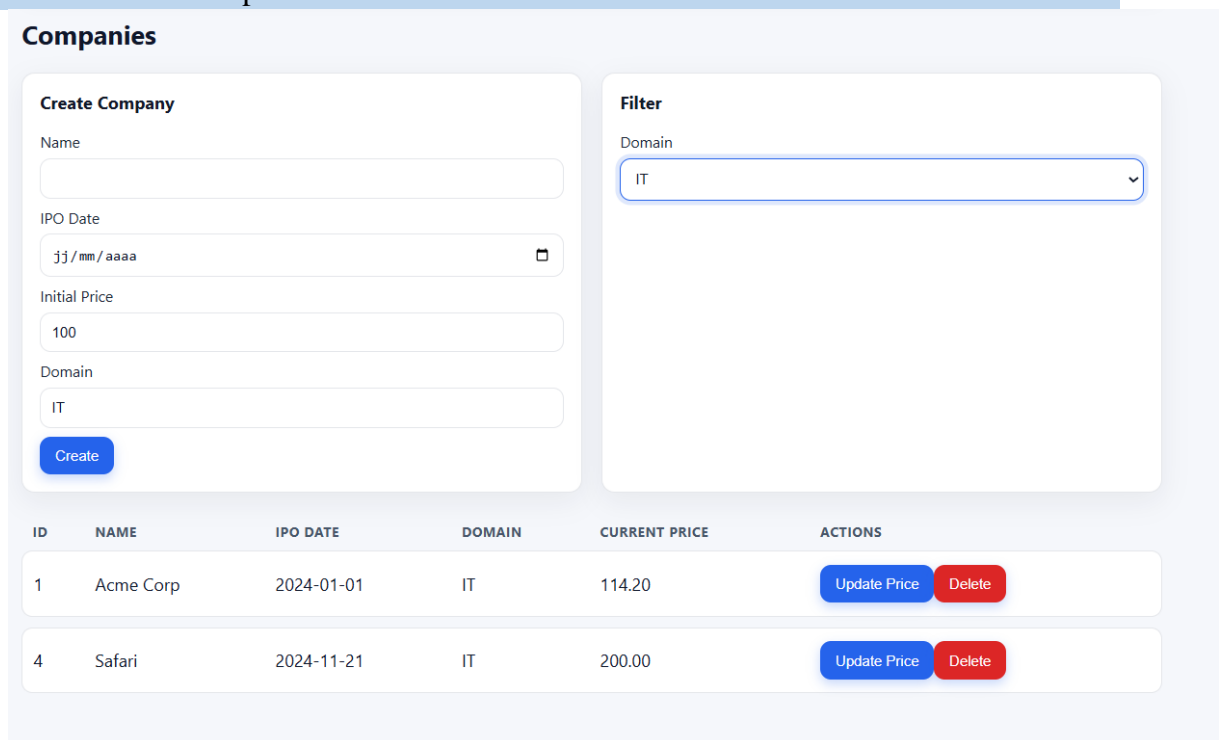
```
2 {
3   {
4     "id": 1,
5     "date": "2025-11-17T10:30:00",
6     "openValue": 110.0,
7     "highValue": 115.0,
8     "lowValue": 100.5,
9     "closeValue": 114.2,
10    "volume": 8500,
11    "companyId": 1
12  },
13  {
14    "id": 2,
15    "date": "2025-11-17T10:30:00",
16    "openValue": 120.0,
17    "highValue": 130.0,
18    "lowValue": 100.5,
19    "closeValue": 114.2,
20    "volume": 8800,
21    "companyId": 2
22  },
23  {
24    "id": 3,
25    "date": "2025-11-17T10:30:00",
```

3. Les interfaces :

3.1 Afficher les entreprises :



3.2 Filter les entreprises :



3.3 Créer une entreprise :

Create Company

Name

INWI

IPO Date

21 / 01 / 2024

Initial Price

300

Domain

Telecom

Create

Filter

Domain

All

ID	NAME	IPO DATE	DOMAIN	CURRENT PRICE	ACTIONS
1	Acme Corp	2024-01-01	IT	114.20	<div>Update PriceDelete</div>
2	Maroc Telecom	2024-11-21	Telecom	114.20	<div>Update PriceDelete</div>
3	Adria	2024-11-21	BT	114.20	<div>Update PriceDelete</div>
4	Safari	2024-11-21	IT	200.00	<div>Update PriceDelete</div>
5	INWI	2024-01-21	Telecom	300.00	<div>Update PriceDelete</div>

3.4 Modifier le prix :

Create Company

Name

INWI

IPO Date

21 / 01 / 2024

Initial Price

300

Domain

Telecom

Create

Filter

Domain

All

Update Price for #1

114,2

Save

Cancel

ID	NAME	IPO DATE	DOMAIN	CURRENT PRICE	ACTIONS
1	Acme Corp	2024-01-01	IT	114.20	<div>Update PriceDelete</div>
2	Maroc Telecom	2024-11-21	Telecom	114.20	<div>Update PriceDelete</div>
3	Adria	2024-11-21	BT	114.20	<div>Update PriceDelete</div>
4	Safari	2024-11-21	IT	200.00	<div>Update PriceDelete</div>
5	INWI	2024-01-21	Telecom	300.00	<div>Update PriceDelete</div>

3.5. Afficher les cotations :

Stock Market

CompaniesStocks

Stocks

Add Stock Quote

Company

Acme Corp

Date/Time (optional)

jj/mm/aaaa --:--

Open

0

High

0

Low

0

Close

0

Volume

0

Add

Filter

Company

All

ID	COMPANY	DATE	OPEN	HIGH	LOW	CLOSE	VOLUME	ACTIONS
1	Acme Corp	2025-11-17T10:30:00	110.00	115.00	108.50	114.20	8500	Delete
2	Maroc Telecom	2025-11-17T10:30:00	120.00	130.00	108.50	114.20	8888	Delete
3	Adria	2025-11-17T10:30:00	120.00	130.00	108.50	114.20	999	Delete
4	Acme Corp	2025-11-17T10:30:00	120.00	130.00	108.50	114.20	1000	Delete

3.6. Filtrer les cotations selon l'entreprise :

Stock Market

CompaniesStocks

Stocks

Add Stock Quote

Company
Acme Corp

Date/Time (optional)
jj/mm/aaaa --:--

Open
0

High
0

Low
0

Close
0

Volume
0

Add

Filter

Company
Acme Corp

ID	COMPANY	DATE	OPEN	HIGH	LOW	CLOSE	VOLUME	ACTIONS
1	Acme Corp	2025-11-17T10:30:00	110.00	115.00	108.50	114.20	8500	Delete
4	Acme Corp	2025-11-17T10:30:00	120.00	130.00	108.50	114.20	1000	Delete

3.7 . Ajouter un cotation :

Stock Market

CompaniesStocks

Stocks

Add Stock Quote

Company

Maroc Telecom

Date/Time (optional)

07/11/2025 14:12

Open

11

High

10

Low

05

Close

8

Volume

100

Add

Filter

Company

Maroc Telecom

ID	COMPANY	DATE	OPEN	HIGH	LOW	CLOSE	VOLUME	ACTIONS
2	Maroc Telecom	2025-11-17T10:30:00	120.00	130.00	108.50	114.20	8888	Delete
5	Maroc Telecom	2025-11-07T14:12:00	11.00	10.00	5.00	8.00	100	Delete

3.8 . chatbot :