# **Deployment**

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#### **Overview**

InfoSymbolServer is containerized using <u>Docker</u> and can be deployed using <u>Docker</u> Compose for development and testing environments. This page explains how to deploy the application using these tools.

### **Docker Compose Deployment**

The project includes a docker-compose.yml file that defines the application stack:

```
version: '3.8'

services:
   infosymbolserver:
    image: infosymbolserver
   build:
        context: .
        dockerfile: InfoSymbolServer/Dockerfile
   ports:
        - "61578:61578"
   environment:
        - ASPNETCORE_ENVIRONMENT=Development
        -
        ConnectionStrings__DefaultConnection=Host=db;Port=61579;Database=infosymboldb;Username=postgres;Password=postgres
        depends_on:
        db:
```

```
condition: service_healthy
 db:
    image: postgres:alpine
    container name: infosymbol-postgres
   environment:
      - POSTGRES USER=postgres
      - POSTGRES PASSWORD=postgres
      - POSTGRES DB=infosymboldb
      - PGP0RT=61579
   volumes:
      - postgres-data:/var/lib/postgresql/data
    ports:
      - "61579:61579"
    healthcheck:
      test: ["CMD-SHELL", "pg_isready -U postgres -p 61579"]
      interval: 5s
      timeout: 5s
      retries: 5
      start period: 10s
volumes:
 postgres-data:
```

### **Components:**

- 1. **infosymbolserver**: The main application service
  - Built from the Dockerfile in the project
  - Exposes port 61578
  - Depends on the database service
  - Configured via environment variables
- 2. **db**: PostgreSQL database service
  - Runs on explicitly defined port 61579
  - Includes a health check to ensure readiness
  - Persists data using a named volume
  - Port is exposed to the host for external tools to connect

## **Deployment Steps:**

1. Clone the repository:

```
git clone https://github.com/yourusername/infosymbolserver.git
cd infosymbolserver
```

2. Start the services:

```
docker-compose up -d
```

3. Verify the deployment:

```
docker-compose ps
```

4. Check the logs:

```
docker-compose logs -f infosymbolserver
```

- 5. Access the API:
  - Swagger UI: http://localhost:61578/swagger
  - API Endpoints: http://localhost:61578/api/v1/...

### **Stopping the Services:**

To stop the services but keep the data volumes:

```
docker-compose down
```

To stop the services and remove the data volumes:

```
docker-compose down -v
```