## **Authentication**

### **Introduction**

The authentication system is located in the "security.yaml" file and is based on the "User" entity.

Official documentation available here: <a href="https://symfony.com/doc/current/security.html">https://symfony.com/doc/current/security.html</a>

#### **Providers**

In addition to your User class, you also need a "User provider": a class that helps with a few things, like reloading the User data from the session and some optional features, like remember me and impersonation.

#### Example:

```
# config/packages/security.yaml
encoders:
   App\Entity\User:
   algorithm: auto
```

### **Password Hasher**

Use native password hasher, which auto-selects and migrates the best possible hashing algorithm (which currently is "bcrypt").

#### Example:

```
# config/packages/security.yaml
password_hashers:
    Symfony\Component\Security\Core\User\PasswordAuthenticatedUserInterface: 'auto'
```

#### **Firewall**

The firewalls section of config/packages/security.yaml is the most important section. A "firewall" is your authentication system: the firewall defines which parts of your application are secured and how your users will be able to authenticate (e.g. login form, API token, etc).

#### Example:

```
# config/packages/security.yaml
firewalls:

dev:
    pattern: ^/(_(profiler|wdt)|css|images|js)/
    security: false

main:
    lazy: true
    provider: app_user_provider
    pattern: ^/
    form_login:
        login_path: login
        check_path: login
        csrf_token_id: authenticate
    logout:
        path: logout
        target: homepage

secured_area:
    form_login:
        login_path: login
        check_path: log
```

# **Role Hierarchy**

Instead of giving many roles to each user, you can define role inheritance rules by creating a role hierarchy.

#### Example:

```
# config/packages/security.yaml
role_hierarchy:
    ROLE_ADMIN: ROLE_USER
```

## **Access Control**

The access control fine tunes the authorization needed to access certain paths, for example some paths can be made accessible to any user or only to admins users.

### Example:

```
# config/packages/security.yaml
access_control:
    - { path: ^/tasks, roles: ROLE_USER }
```