**Production Management System Front Documentation**

**Overview**

The Production Management System is designed to streamline the production, assembly, and inventory management processes for aircraft parts. With a user-friendly interface, the system enhances the efficiency of both production teams and management.

**Pages and Features**

**1. Dashboard (Panel)**

The dashboard displays the logged-in user's team information and provides quick access to other pages.

Key Features:

* • Displays user's team name and information.
* • Provides quick access to 'Produced Airplanes,' 'Missing Parts,' and 'Team Members' pages.
* • Enables starting 'Part Production' and 'Aircraft Production' tasks.

**2. Parts Management**

This page manages the production and recycling of parts for the user's assigned team.

Key Features:

* • Lists parts with their names and stock quantities.
* • Allows new part production.
* • Enables recycling of unused parts.

**3. Produced Airplanes**

Displays a list of produced airplanes.

Key Features:

* • Shows airplane names, used parts, and production dates.
* • Tracks which parts were used for specific airplanes.

**4. Team Members**

Lists all members of the logged-in user's team.

Key Features:

* • Displays team members' first and last names, along with other details.

**5. Missing Parts**

Displays parts that are missing from inventory.

Key Features:

* • Provides alerts for missing parts required for aircraft assembly.

**6. Aircraft Assembly**

Enables the team to assemble aircraft using available parts.

Key Features:

* • Checks required parts during assembly.
* • Updates stock after assembly completion.

**Technologies Used**

**Backend**

• Django REST Framework for API development.

• PostgreSQL for database management.

**Frontend**

• HTML5 & CSS3 for page structure.

• TailwindCSS for modern and fast styling.

• JavaScript (jQuery) for AJAX requests and dynamic content management.

**AJAX**

AJAX was used to communicate with APIs without refreshing the page, ensuring seamless user interactions.

**Backend Endpoints**

Key API endpoints and their functionalities:

• /api/login/ (POST): Authenticate users and return a JWT token.

• /api/teams/ (GET): Retrieve a list of all teams.

• /api/parts/recycle/ (POST): Recycle a specific part and update its stock.

• /api/aircrafts/<id>/assemble/ (POST): Assemble an aircraft using available parts.

• /api/produced-aircrafts/ (GET): Retrieve a list of produced airplanes.

• /api/team-members/<id>/ (GET): List all members of a specific user's team.

• /api/aircrafts/<id>/missing-parts/ (GET): Retrieve missing parts for a specific aircraft.