



AI CLEANING SCHEDULER

PureLogic Cleaner Ltd

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The *AI model scheduler Module User Manual* provides an explanation of all standard functionalities that the *PureLogic Cleaner Ltd* has to offer. Some of the functionalities are unavailable for the end-users due to differences in business logic and flow and mostly to purchased Modules.



1. Registration and Login - Application flow

Information obtaining from the AI Scheduler requires access, credentials (authorization) and in some cases token and/or certificate. The system can be configured to access the AI cleaning scheduler information by using user name and password set on:

- *Institutional level* (same credentials used by all employees with PureLogic Cleaner Ltd privileges in the Institution)
- *User level* (all customers with PL Cleaner privileges in the Institution have individual access)

The system setup, among any of the abovementioned options, is performed by the Vendor. During the AI Scheduler Implementation Project is it often the case that first the access is set on the Institutional level, for testing purposes, and later in the same Project it is changed to the User level.

1.1. Registration form

The registration form for both user levels is shown below. In the background of the registration form, validations are set for all input fields to preserve data integrity.

Register

First Name:

Last Name:

Username:

Email:

Age:

Password:

Confirm Password:

[Register](#)

The ***Authentication User*** parameter is where the user name for Pure Logic Cleaner app access is set.

The ***Authentication Password*** parameter is where the password of the user who will access the Pure Logic Cleaner is set.

After successful registration, the user receives a pop-up message about successful registration. If the value for one of the fields is not entered in accordance with the validation, a pop-up error message is displayed and registration is not possible.

1.2. Add habits to start a form

In this section, the main business logic is defined. By opening this section, the user is required to enter basic information about his cleaning habits. This data will later be used throughout the application.



The User Preferences form is the initial basis on which the complete application is built, but also the future AI model for prediction. As part of this form, questions for the end user are listed, which it is necessary to answer as accurately as possible so that the model itself will be more accurate and useful in the future. At the beginning there is a list of days of the week when the end user would prefer the cleaning to usually be done. The end user has the option of selecting several days of the week by clicking on the checkbox next to the label.

In the Preferred Cleaning Frequency section, the user has the option of choosing one of the offered answers from the select list, for example: if he prefers cleaning *Daily, Every 3 days, Bi-Weekly, Twice a Month*, and so on. Then, the user has to add all the premises for which he wants the reading to be done in the future. At least one room must be listed in this section. The room characteristics that the user must enter are as follows:

Room Name - the desired text label for the room

Room Label - select list containing types of rooms such as: Kitchen, Living room, Bathroom, Bedroom, Study, Hallway, Garge.

Room size - select list containing three possible room sizes - small, medium and large,

Surface Type - select list containing possible floor types, such as Carpet, Hardwood, Tile,

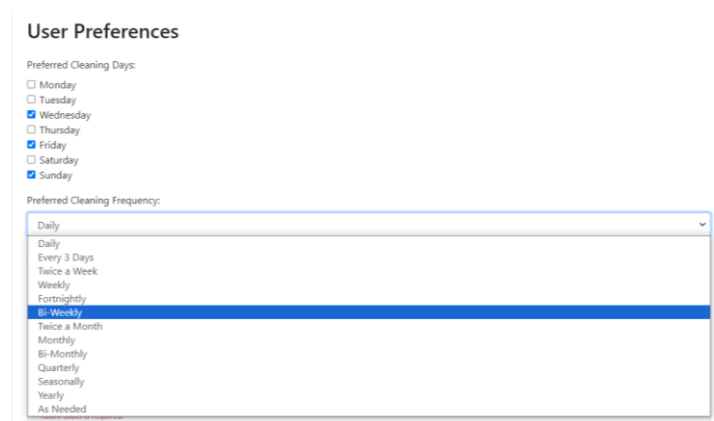
Usage Frequency - select list that contains three possible frequencies of space usage, i.e. low, medium and high frequencies,

Number of Occupants - numerical designation for the number of people who usually stay in that room.

Optionally, it is possible to answer the questions Do you have pets? and Do you have allergies? by clicking on the checkbox if the answers are yes.

After that, the user is able to add a room for his profile.

The step can be repeated as needed by the user.

The form is titled "User Preferences". It contains two sections: "Preferred Cleaning Days:" and "Preferred Cleaning Frequency:". The first section has checkboxes for each day of the week, with Wednesday, Friday, and Sunday selected. The second section is a dropdown menu for cleaning frequency, with "Twice a Week" selected. The dropdown menu lists the following options: Daily, Every 3 Days, Twice a Week, Weekly, Fortnightly, Twice a Month, Monthly, Bi-Monthly, Quarterly, Seasonally, Yearly, and As Needed.

User Preferences

Preferred Cleaning Days:

☐ Monday
☐ Tuesday
☒ Wednesday
☐ Thursday
☒ Friday
☐ Saturday
☒ Sunday

Preferred Cleaning Frequency:

Daily
Every 3 Days
Twice a Week
Weekly
Fortnightly
Twice a Month
Monthly
Bi-Monthly
Quarterly
Seasonally
Yearly
As Needed



User Preferences

Preferred Cleaning Days:

☐ Monday

☐ Tuesday

☐ Wednesday

☐ Thursday

☐ Friday

☐ Saturday

☐ Sunday

Preferred Cleaning Frequency:

Daily

Add your rooms:

Room Name:

Room Name

Room Name is required.

Room Label:

Room Label is required.

Room Size:

Room Size is required.

Surface Type:

Surface Type is required.

Usage Frequency:

Usage Frequency is required.

Number of Occupants:

Number of Occupants

Number of Occupants is required.

Remove Room

Add Room

☐ Do you have pets?

☐ Do you have allergies?

Save Preferences

Close

Room Name:	Room Label:
Kids Bedroom	Bedroom
Room Size:	Surface Type:
Small	Carpet
Usage Frequency:	Number of Occupants:
High	2
Remove Room	

Room Name:	Room Label:
Second floor Kitchen	Kitchen
Room Size:	Surface Type:
Medium	Tile
Usage Frequency:	Number of Occupants:
High	4
Remove Room	

To delete a room result, the **Remove room** button is used. Only unsuccessful (invalid request) can be deleted.

- ☐ Do you have pets?
- ☐ Do you have allergies?

Save Preferences

If the response is successful, the user preferences data are recorded.

By selecting the specific Room from the list and clicking on the **View Request** navigation, the room form request opens.

1.3. Login form

The Login form can be used in case registration process already was successful. Here, a user name and password are created and these are used upon access by any level of privileges.

Login

Username:

Password:

1.4. User Info

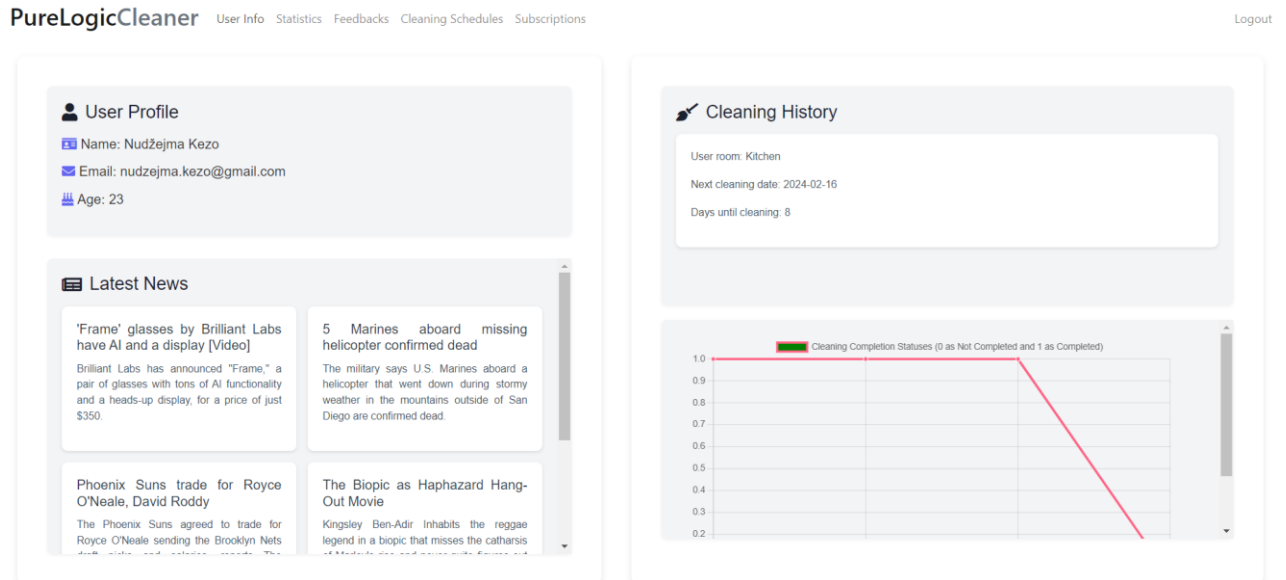
The User Info component is intended to provide more information about the logged in user. It consists of 3 parts:

User Profile - displays basic information about the logged-in user, such as first and last name, e-mail and age.

Latest News - displays random 5 latest news for the logged in user that could potentially be of interest to the user based on the preferences he/she has previously added about himself/herself.

Cleaning History - shows the last cleaning performed by the user. It shows information about which room was cleaned, when the next cleaning day is, and how many days until that AI-predicted day is.

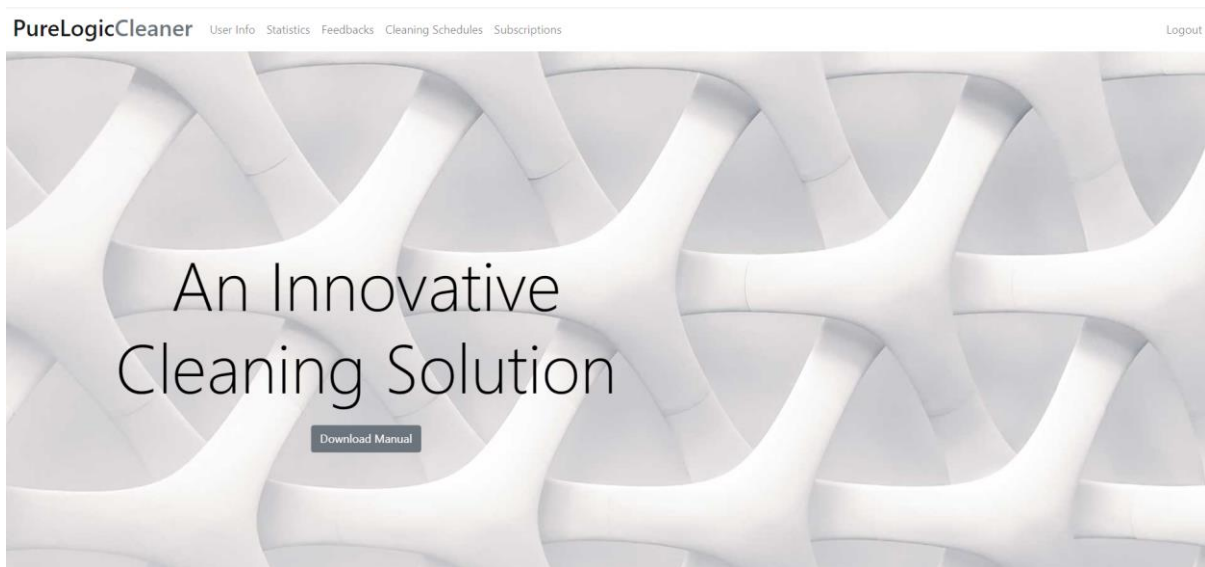
As part of the Cleaning History component, a diagram is displayed that shows how many cleanings have been completed so far.



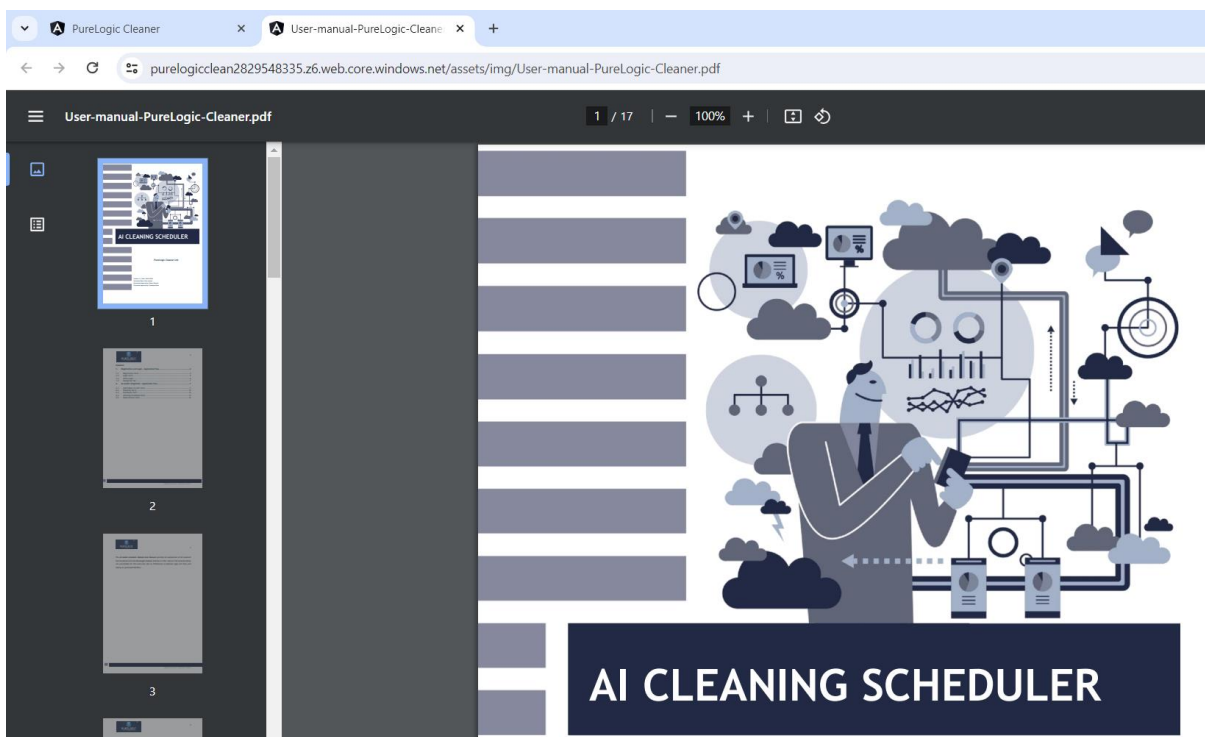
By clicking on the Cleaning History block, the user is redirected to the Cleaning Schedules form.

1.5. Home page

After successful login, the user is able to preview the Home page. In the header of the Home page, the nav bar is listed on the left and Logout button on the right side. The home page consists of basic information about projects completed so far and clients of Pure Logic Cleaner services. The home page displays basic information in the About us section about the PureLogic Cleaner team. Also, some of the experiences and reviews of previous clients are shown. The Contact us form displays basic information about the company, such as location, contact phone number. In the footer of the application, there is a link to the User manual, where the user can get more information about the functionalities offered by the application.

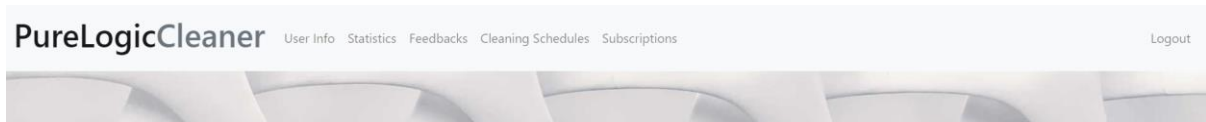


By clicking on the button Download Manual, the user is able to preview the AI Sceduler User Manual document in the next tab.



1.6. Navigation bar

In the Navigation menu, the *User Info*, *Statistics*, *Feedbacks*, *Cleaning schedules* and *Subscriptions* functionalities are available.



2. AI model integration - Application flow

The *AI model* section is set in the *main module*. It is divided into *two main components*, the first one are Statistics form and Cleaning scedules and the second one are Feedbacks and Subscriptions.

A photograph showing four people in a professional setting. Three women and one man are gathered around a laptop, looking at the screen with interest. One woman is pointing at the screen. They are all dressed in business casual attire.

About Us

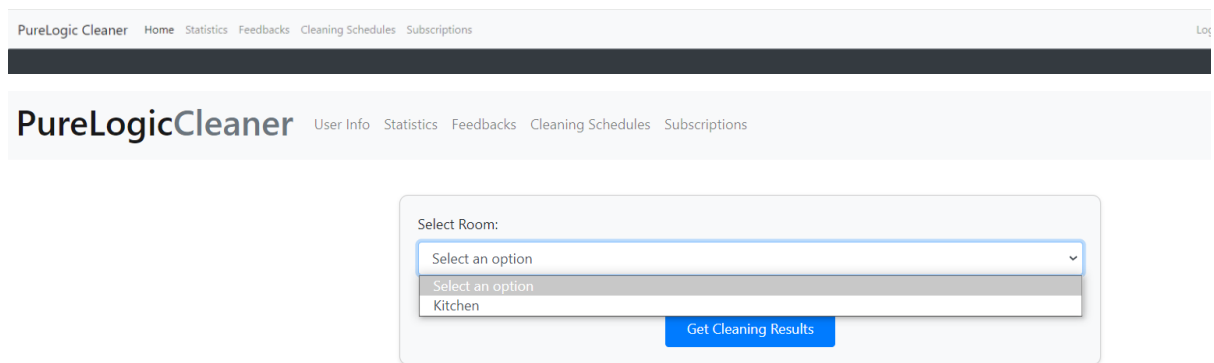
About PureLogic Cleaner and It's Innovative IT Solutions

The PureLogic Cleaner business proposal illustrates an advanced, AI-based cleaning scheduler, integrating robotics, machine learning, and computer vision to automate and optimize cleaning processes. Tailored for both individual and commercial settings, it offers smart device compatibility and incorporates user feedback, focusing on adaptability and improvement.

The initiative signifies a forward-thinking approach in the cleaning industry, aiming to enhance efficiency, user experience, and cleanliness standards through innovative technology and a commitment to excellence. This venture represents a step towards a future where cleanliness and technology go hand in hand, redefining conventional cleaning methodologies with intelligent solutions.

2.1. Statistics form

After successfully saving the User preferences form, a pop-up will be displayed with the title that the submission was successful. After saving, the Home page is displayed with four options in the navbar for the end user: Statistics, Feedback, Cleaning Schedules, and Subscriptions. The above four components are formed based on the previous User preferences form, which the user filled in according to his needs.

A screenshot of the PureLogic Cleaner web application. The top navigation bar includes links for Home, Statistics, Feedbacks, Cleaning Schedules, and Subscriptions. Below this, a secondary navigation bar shows the current page as "Statistics" and includes links for User Info, Statistics, Feedbacks, Cleaning Schedules, and Subscriptions. The main content area displays a form titled "Select Room:". It features a dropdown menu with the placeholder text "Select an option" and a list of options, including "Kitchen". A blue button labeled "Get Cleaning Results" is positioned below the dropdown menu.

Clicking on the Statistics tab in the navigation displays a form with a select list of rooms previously entered by the user. The user needs to select one room from the select list for which he wants to see an overview of cleaning analyses. In this section, the Statistics form purpose is shown on the chart analysis.

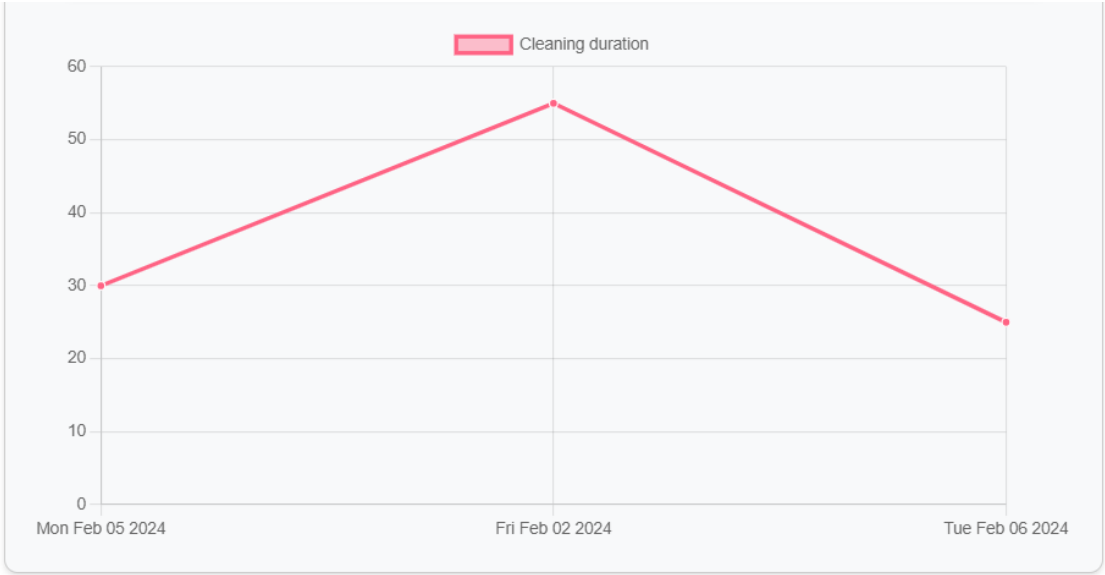


Select Room:

Kitchen

Get Cleaning Results

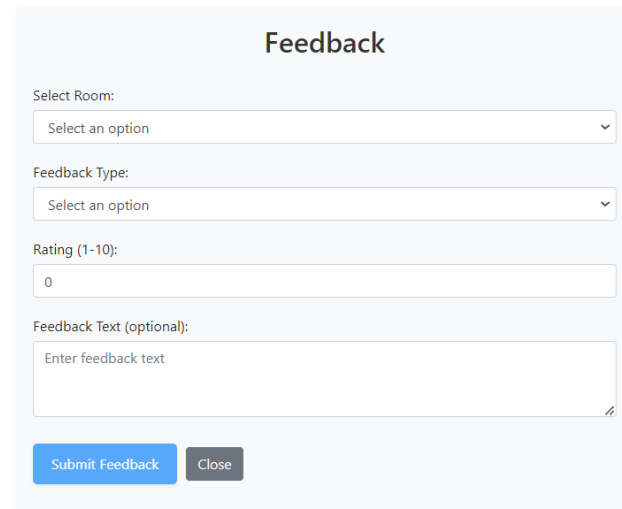
User Room	Completed	Date
Kitchen	✗	2024-02-16
Kitchen	✓	2024-02-06
Kitchen	✓	2024-02-05
Kitchen	✓	2024-02-02



The diagram shows the ratio between the time needed for cleaning in the previous cleaning days.

2.2. Feedbacks form

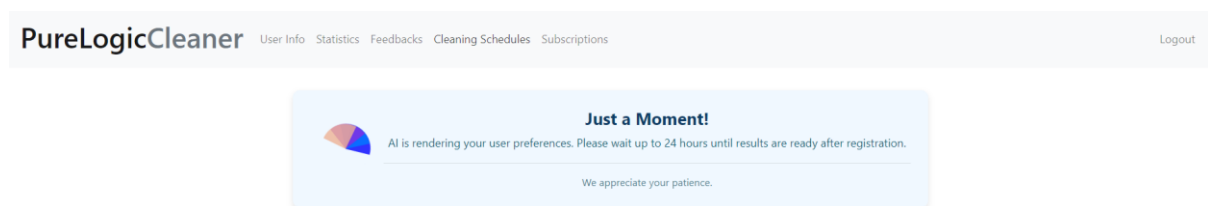
The **Feedbacks form** section represents the user's experience while using the PureLogic Cleaner application. By clicking on the Feedbacks tab in the navigation, a form is displayed where the user can enter his impression of using the PureLogic Cleaner application.

A screenshot of the "Feedback" form. The form has a title "Feedback" at the top. Below the title are four input fields: "Select Room:" with a dropdown menu showing "Select an option"; "Feedback Type:" with a dropdown menu showing "Select an option"; "Rating (1-10):" with a text input field containing the number "0"; and "Feedback Text (optional):" with a larger text area containing the placeholder "Enter feedback text". At the bottom of the form are two buttons: a blue "Submit Feedback" button and a grey "Close" button.

The user is required to enter the main qualifications of previous room's cleaning. In order to complete the submission of feedback for room, the user needs to select the room in the select list for which feedback is about, select the Feedback type that might have a value as it follows: After cleaning, Before cleaning and Scheduled cleaning. It is important to clarify the significance of the Before Cleaning option in the select list. In the occasions when the user in the Statistics form section receives a **the next cleaning date info** generated by the AI model that does not suit him (the reason may be that the generated day of the week or time is not adequate), creating feedback for that cleaning, the user can prevent it in the future AI calculations. In that case, the AI model will try in the future to enter the results of that feedback into its calculations to display the next ideal date and time for cleaning.

2.3. *Cleaning Schedules form*

The Cleaning Schedules Form is the heart of the entire AI process. The Cleaning Schedules form shows all the cleaning activities that have happened in the past and that will happen in the future. In the section for previous schedules, all schedules that happened before and ending with the current day are shown.



The user has the option to complete the previous schedule by clicking on the Complete button and it will be marked as successfully completed. The part related to future schedules refers to the activities that should be undertaken for the day that the AI model generated as the best for the future cleaning date. In that case, the user has the option to choose one of the companies that have a contract with PureLogic Cleaners Ltd. By clicking on the desired company, an email is automatically sent to that company with an offer for future cleaning. In case the user does not receive a response from that company, the system notifies the user the day before the AI-generated cleaning appointment to send an offer to another company from the list. The process is repeated until the cleaning is successfully completed.

FUTURE CLEANING HISTORY						
User Room	Completed	Cleaning Quality	Cleaning Duration (mins)	Scheduled Date	Days left	Actions
Kitchen	✗	NAN	NAN	2024-02-16	8	<button>Schedule</button>

PAST CLEANING HISTORY						
User Room	Completed	Cleaning Quality	Cleaning Duration (mins)	Date	Updated At	Actions
Kitchen	✓	Quick	25	2024-02-06	NAN	<button>Complete</button>
Kitchen	✓	Basic	30	2024-02-05	NAN	<button>Complete</button>
Kitchen	✓	Basic	55	2024-02-02	NAN	<button>Complete</button>

2.4. Subscriptions form

After selecting the Subscriptions tab in the navigation, the user has the option of viewing all the subscriptions enabled so far by the PureLogic Cleaner team. The subscription form currently consists of three possible subscription options, namely: Basic, Standard, and Premium packages. Basic information about each package is displayed. The basic information is Name, Price, Sensor Availability, Duration, and Description.

You currently have Monthly package

Monthly

\$ 19.99 / per month

Sensor Availability: False

Duration: 30 days

Description: N/A

Subscribe

Annual

\$ 99.99 / per month

Sensor Availability: False

Duration: 365 days

Description: N/A

Subscribe

Premium

\$ 129.99 / per month

Sensor Availability: True

Duration: 365 days

Description: N/A

Subscribe

By clicking the Subscribe button on one of the packages, the user subscribes to our services. After a successful subscription, the user receives a pop-up message about the success. The user has the option of changing the service package at the end of the month. At the very top of the form is displayed information on which service



package the logged-in user is on. The content of this form changes following current marketing benefits created by the PureLogic Cleaner team.