INTERNATIONAL
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# USER MANUAL

# ADVANCED ATTENDANCE SYSTEM

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# Contents

# 1 Introduction

Please read this manual before using the software application to ensure proper operation.

The creation of a windows desktop software application was requested for the management of entry and exit to the workplace and the display of statistics for all employees of a company. The solution implemented for this project was the production of the "Advanced Attendance System" software application (from now on the "Application"). The application is entirely in English with a simple and modern graphical interface, with the following limitation: it belongs to the desktop application category, which means that its information will be stored locally on the installed computer and will not be accessible via the Internet or another computer.

In order for the application to be installed and to have optimal performance, the computer on which it will be installed must meet the following technical characteristics:

Minimum:

Operating System: Windows 10 x64

Processor: Intel Core i3-7100 @ 3.90GHz

Graphics card: Doesn't matter

RAM: 8.00 GB

Storage Space: 128 GB


Featured:

Operating System: Windows 10 x64

Processor: Intel Core i7-8750h @ 2.20GHz

Graphics card: Nvidia GTX 1050Ti

RAM: 8.00 GB

Storage Space: 512 GB


Notes, and warnings

Note: A note indicates an important piece of information that will help you make better use of the application.

Warning: A warning indicates some possible data loss and suggests a possible solution.

# 2 Installation

The files we provide as a package are two: a) the installer and b) the uninstaller.

Step 1: To install our product you will need to run the installer called "Advanced Attendance System - Installer.exe".

Step 2: You will be asked to provide administrator rights for the installation. Select "Yes" to continue the installation.
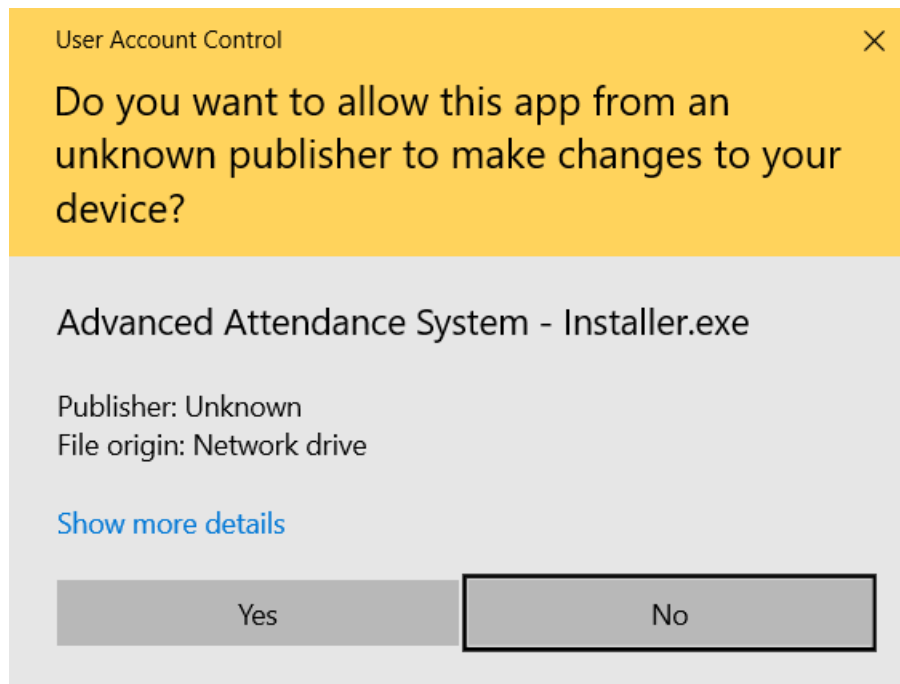


Figure 2.1: Granting administrator rights

Step 3: Then a new window will appear which is the "Installation Wizard". Click install to finish installing the program. If no error message appears, it means that the installation was completed successfully. The installer automatically creates desktop shortcuts and a folder on the local C drive to store the database, face images, and instances document.
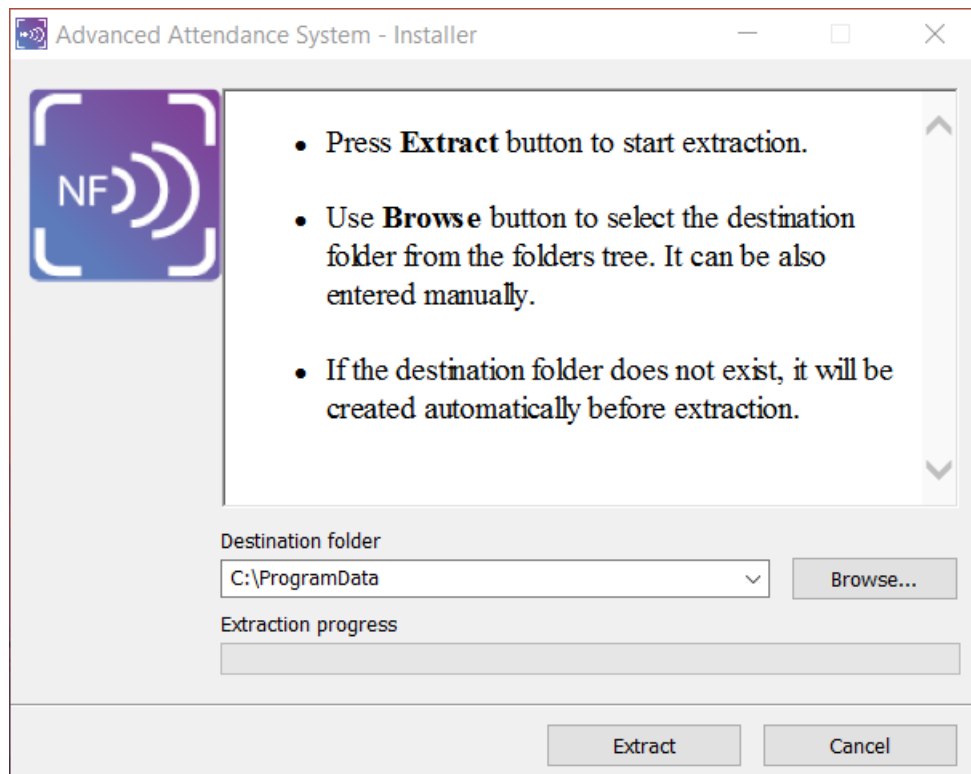
Figure 2.2: Installing the application

# 3 Uninstallation

Step 1: To run the uninstaller named "Uninstaller.bat" you will right click on the file and then "Run as administrator".
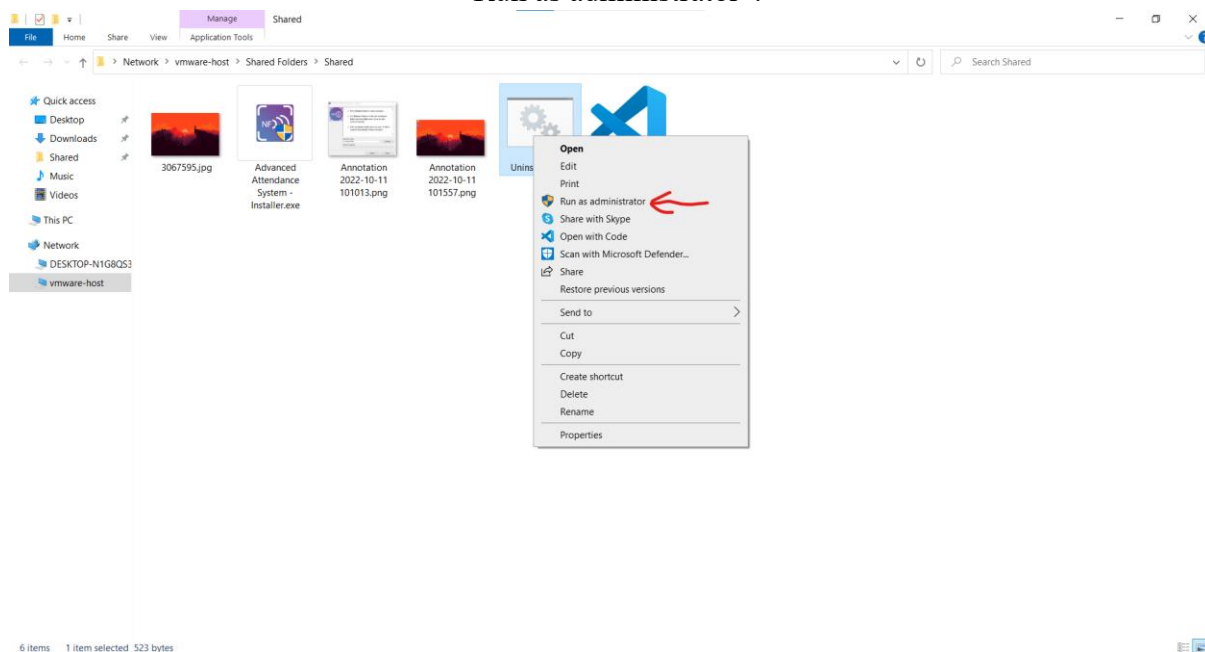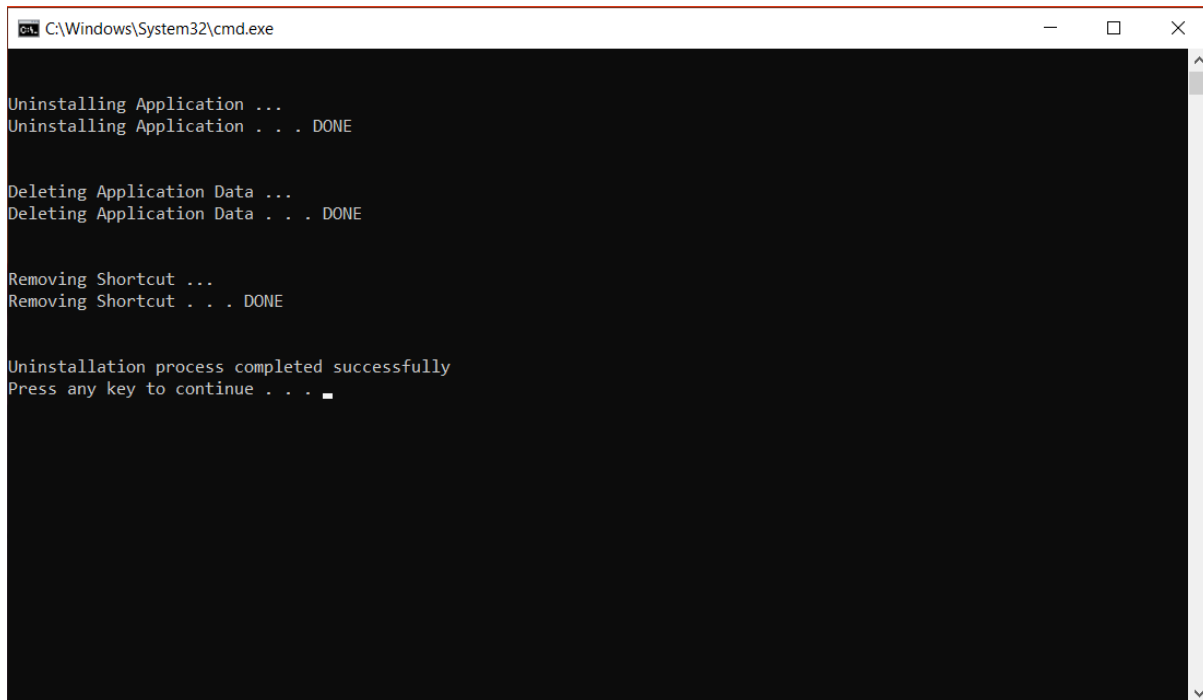


Figure 3.1: Uninstalling an application

Step 2: Everything will be done automatically and just wait for the "Uninstallation process completed successfully" message to appear. When this message appears, you can close the window as the uninstall will be completed successfully.



Figure 3.1: Successful application uninstallation

# 4 How to use the application

The application has two categories of users, of which only users who belong to the company's Human Resources department have the ability to edit (modify, delete) other employees, to edit (modify, delete, add) the domains ( sectors) of the company's work and finally they have the possibility to see the statistics. The other category contains all other workers, who will only be able to enter and exit their workplace.

## 4.1 Opening Application

Step 1: Select the application icon on your computer desktop.
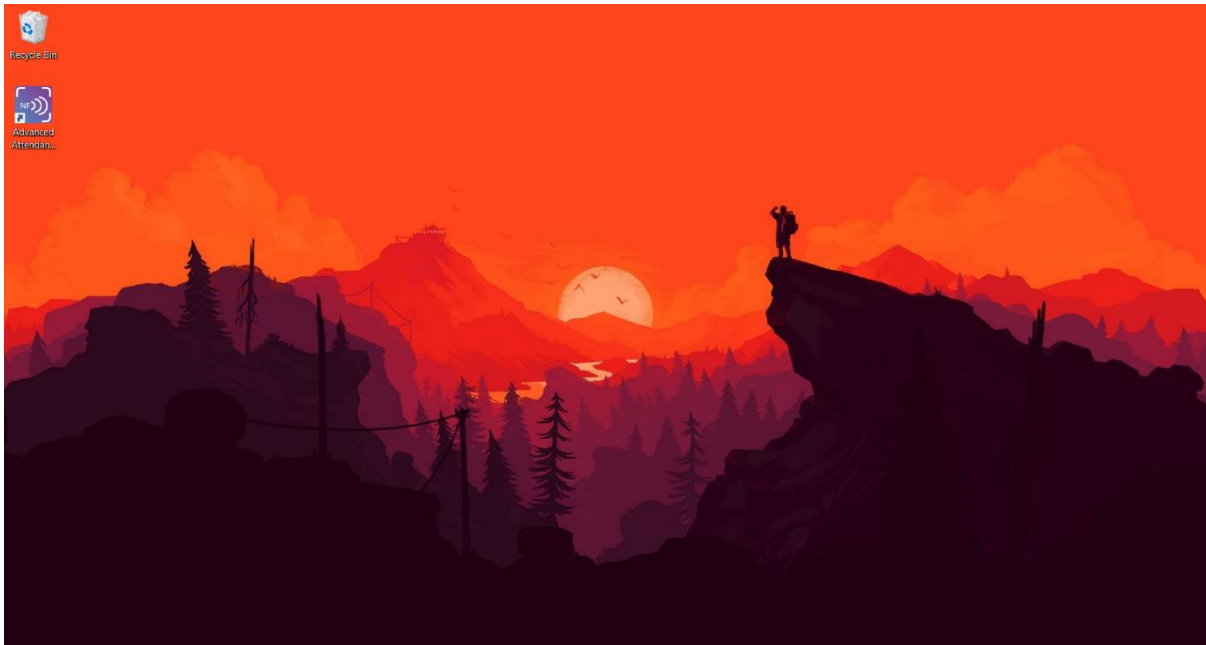
Figure 4.1.1: Open application

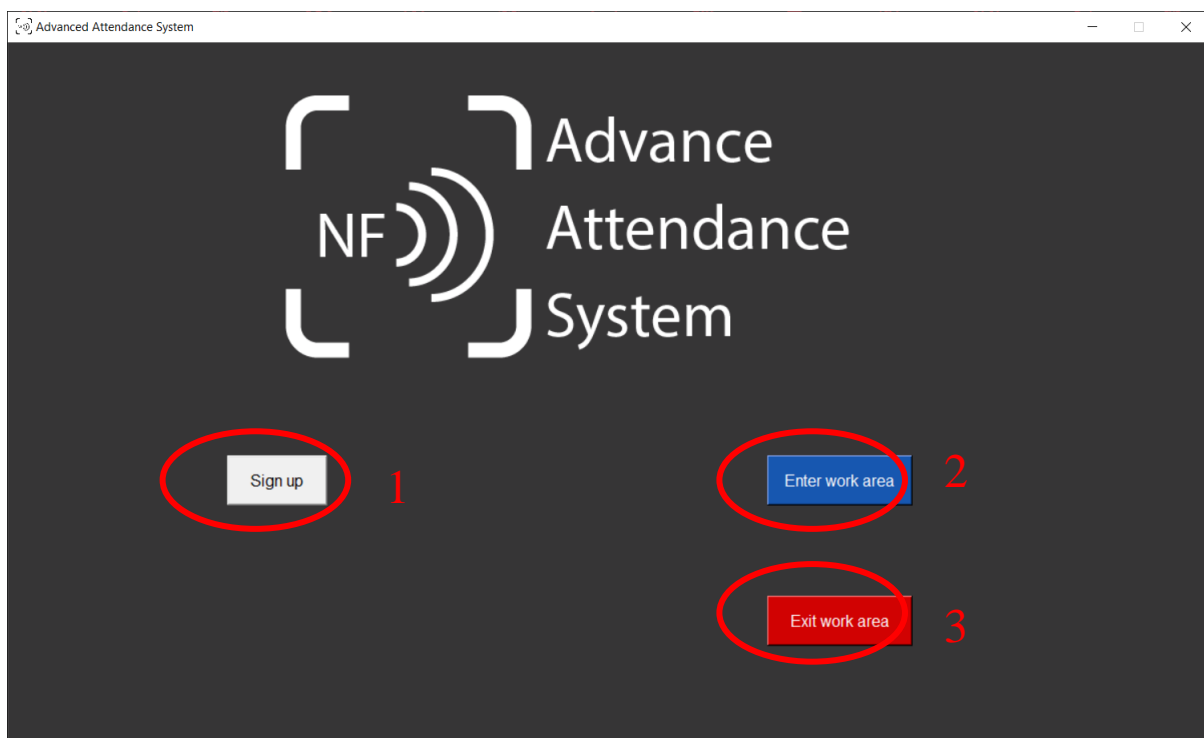Step 2: The user is welcomed by the home screen of the program



Figure 4.1.2: Home screen

## 4.2 New User Registration

To register in the application the employee must follow the following steps:

Step 1: Selects button 1 (white "Sign up" button) of Figure 4.1.2 with the mouse, this will take you to the registration screen shown in Figure 4.2.1



Figure 4.2.1: Registration screen

Step 2: After depositing the RFID card, which will be given to him, on the special reader he must press button 1 (figure 4.2.1 "Get card's uid").

Step 3: The user fills in his personal information in the fields.

Note 4.2.1: After filling in his first and last name, the user must press button 2 (figure 4.2.1 "Generate email") so that the application will automatically generate his company email.

Note 4.2.2: The application automatically checks whether the user/employee is at least 18 years old. A user is defined as an adult for the application if the difference in the date of recruitment (Joined Date) is later by 18 years than the date of birth (Date of birth) that will be declared in the program. In case this condition is not valid, the system issues an error message and does not complete the registration figure 4.2.2.
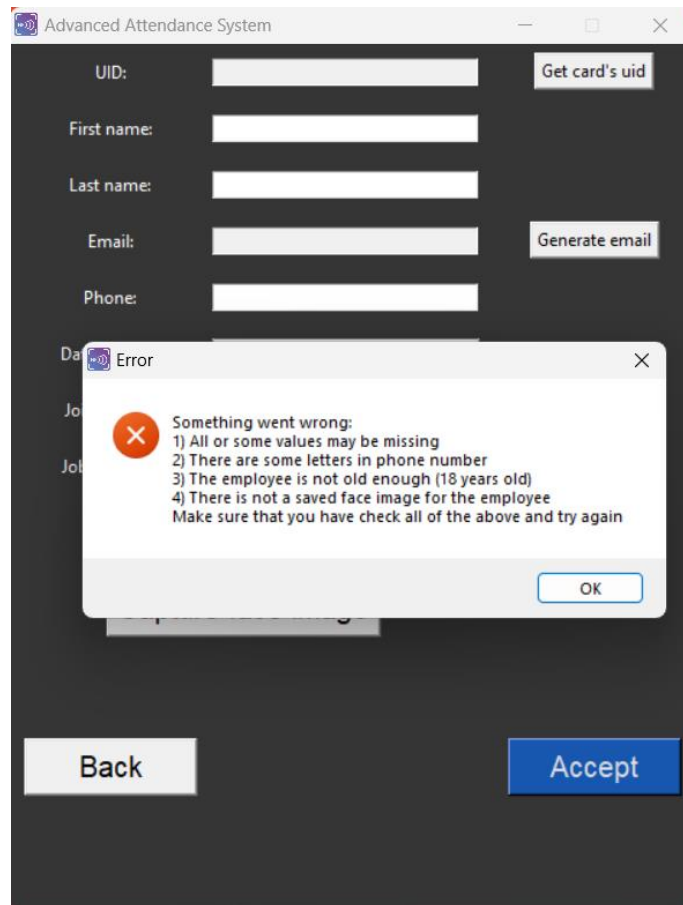


Figure 4.2.2: Error during registration

Step 4: After filling in all his personal information, the user must select button 3 (in figure 4.2.1 "Capture face image") so that the program will save the image of his face that will be used for identification.

Warning 4.2.1: To start taking the photo, the user must have successfully completed step 2. Otherwise, the following message will appear (figure 4.2.3).
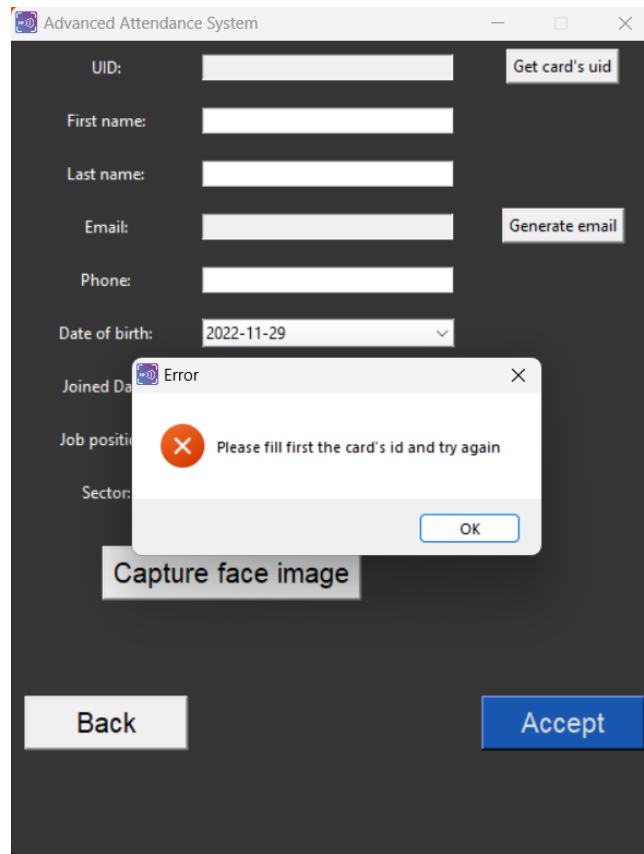
Figure 4.2.3: Error while taking photo

The application will open a pop-up window (pop-up window figure 4.2.4) in which the user will see the camera and will be able to select "Capture" to take the photo.
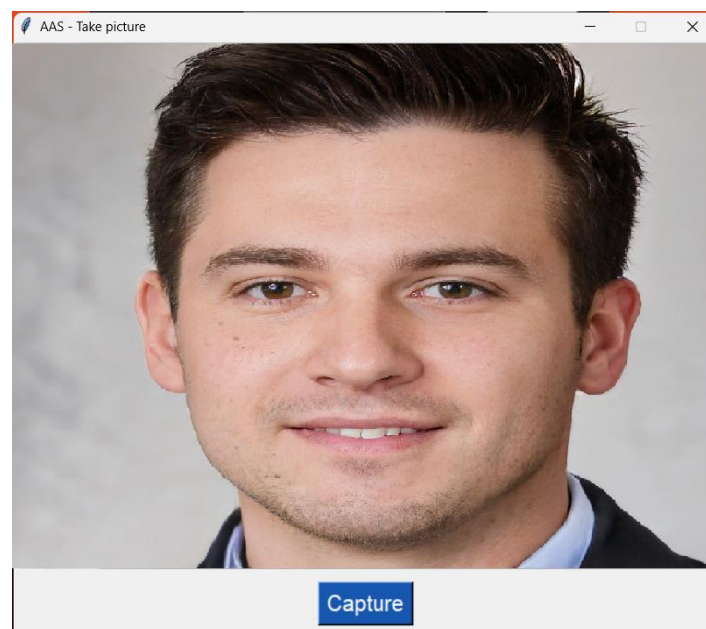


Figure 4.2.4: Camera feed

Then, the application will display the photo it took and allows the user to save it by pressing the "Save" button in figure 4.2.5 or if he wants to take another one by pressing the "Try again" button.
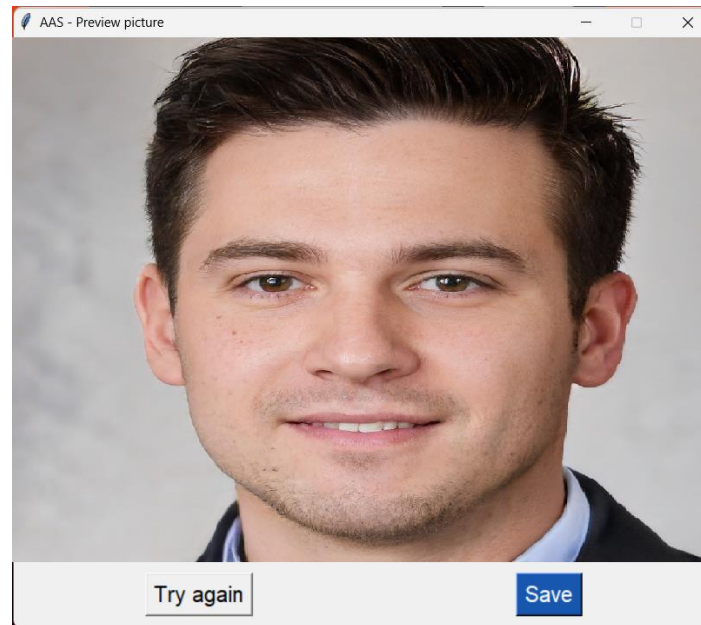


Figure 4.2.5: Photo view

Step 5: After steps 2 to 4 have been completed successfully, the user can select the blue button of figure 4.2.1 ("Accept") to complete his registration (figure 4.2.6). In the event that for some reason the registration is not successful, the message shown in figure 4.2.2 will appear.



Figure 4.2.6: Successful user save

## 4.3 Entering the Workplace

To record the time of entry, the employee must follow the following steps:

Step 1: After placing the RFID card on the special reader, select with the mouse button 2 (blue button "Enter work area") of figure 4.1.2, the application using the system camera within 6 to 11 seconds will identify the user with the image he has saved for the specific card. The system will then inform him of a possible problem or if his entry has been registered with an appropriate message figure 4.3.1-3.
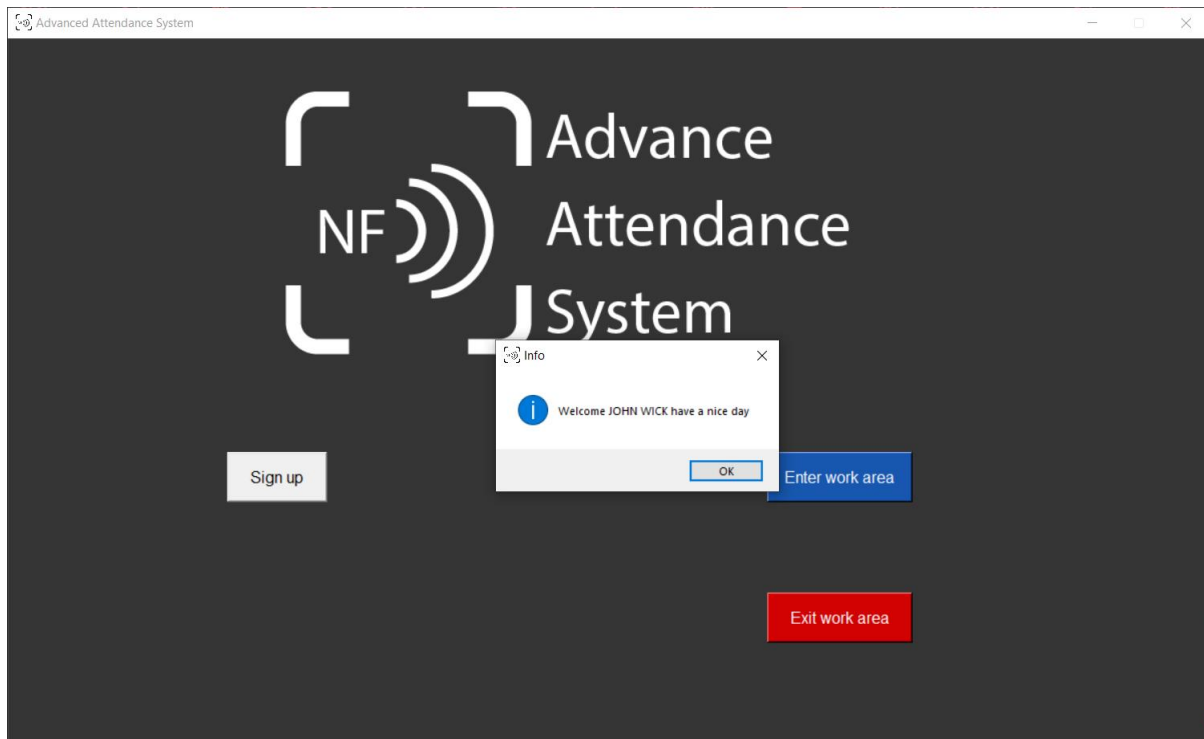


Figure 4.3.1: Successful input logging

Note 4.3.1: In case either the camera or the reader is not connected to the system or for any other reason it cannot be identified by the application, an error message will appear as in figure 4.3.2.
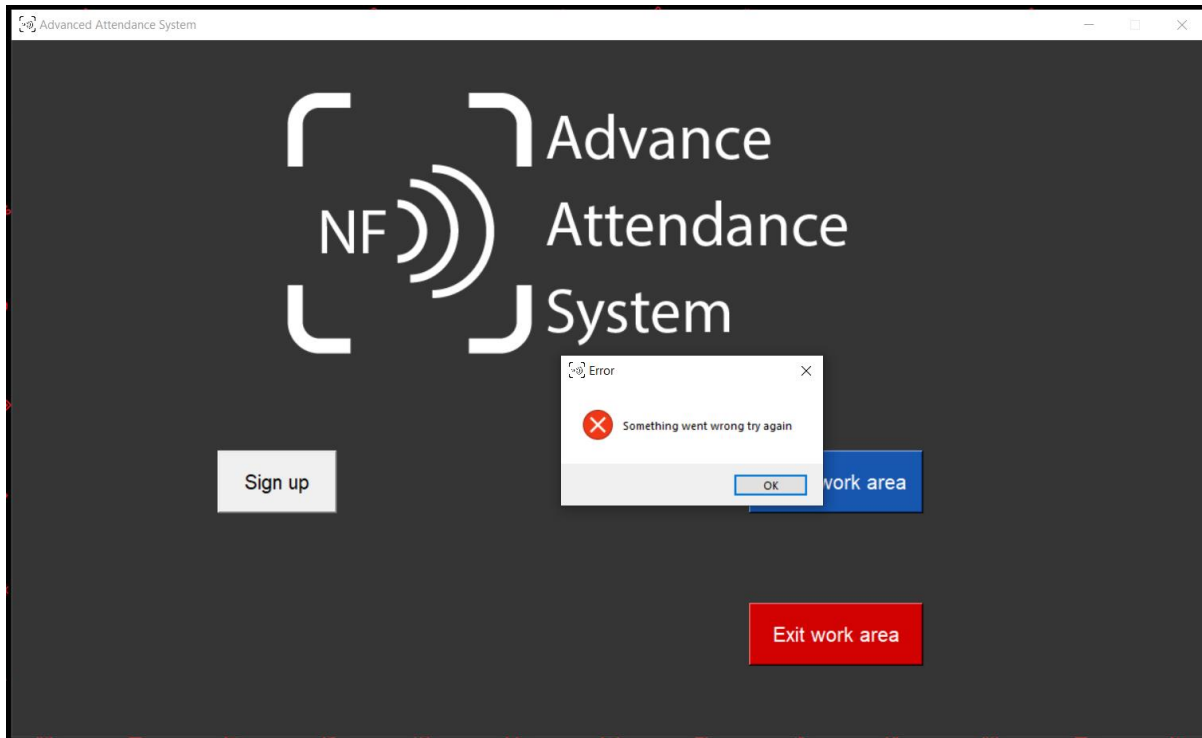
Figure 4.3.2: Unsuccessful authentication

Note 4.3.2: In case a different card is used by another employee, an error message will appear as in figure 4.3.3
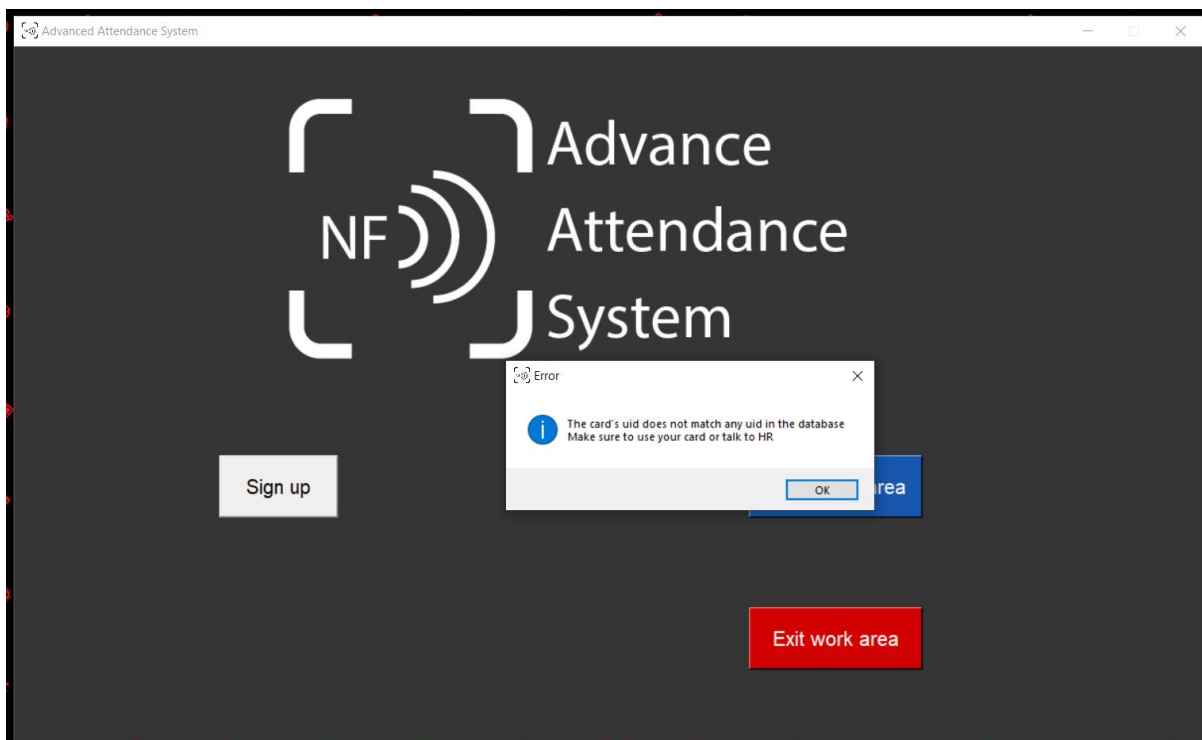
Figure 4.3.3: Wrong RFID card

Note 4.3.3: If either occurs (Note 4.3.1 or 4.3.2) the system will display the following pop-up window allowing administrators to authenticate.
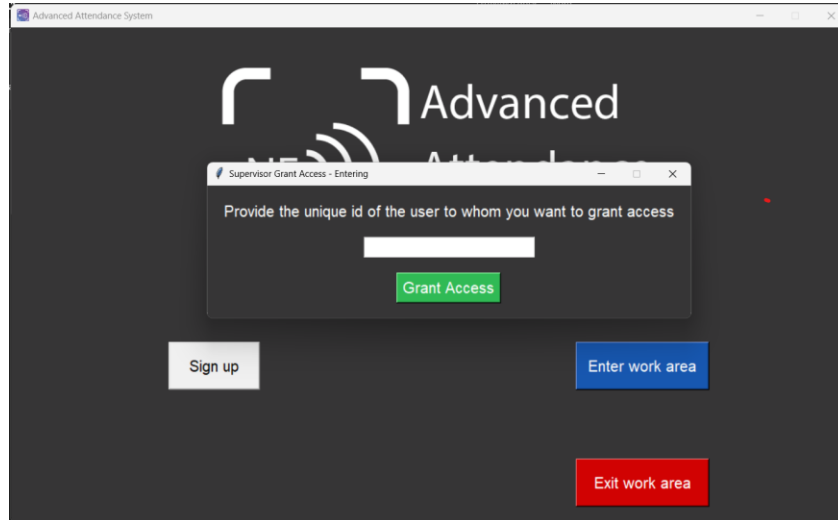


Figure 4.3.4: Manual identification

## 4.4 Exiting the workplace

To record the exit time, the employee must follow the following steps:

Step 1: After placing the RFID card on the special reader, select button 3 (red button "Exit work area") of figure 4.1.2 with the mouse. The system will then inform him of a possible problem or if his exit time has been registered with an appropriate message figure 4.4.1.
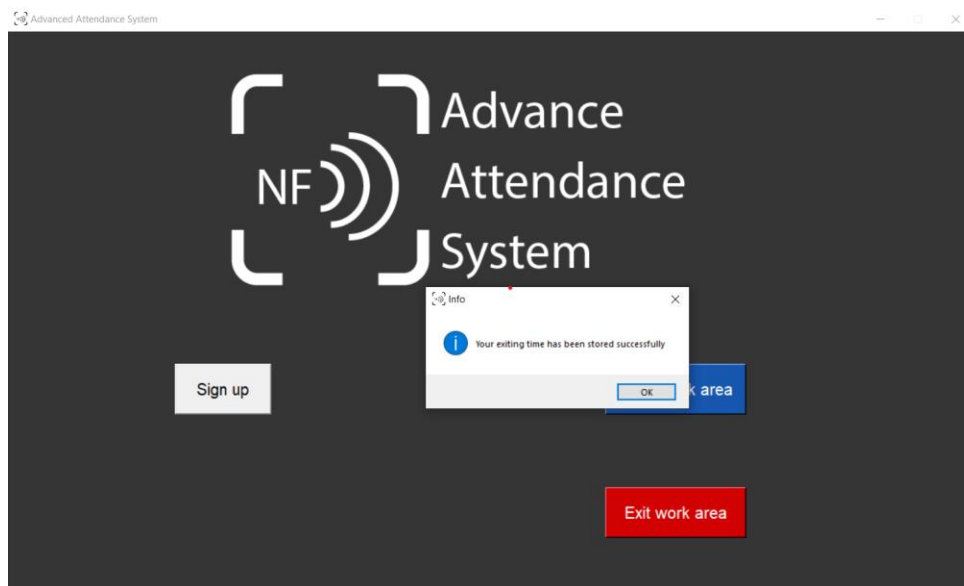


Figure 4.4.1: Successful output logging

**Note 4.4.1:** In case the application is unable to find any entry record of the employee for the specific day, an error message will appear as in figure 4.3.2

## 4.5 Admin panel

If during login (see Section 4.3) the application recognizes that the user is an employee in the field of HR (Human Resources), then as soon as he registers his login, the "Admin Panel" figure 4.5.1 will open.
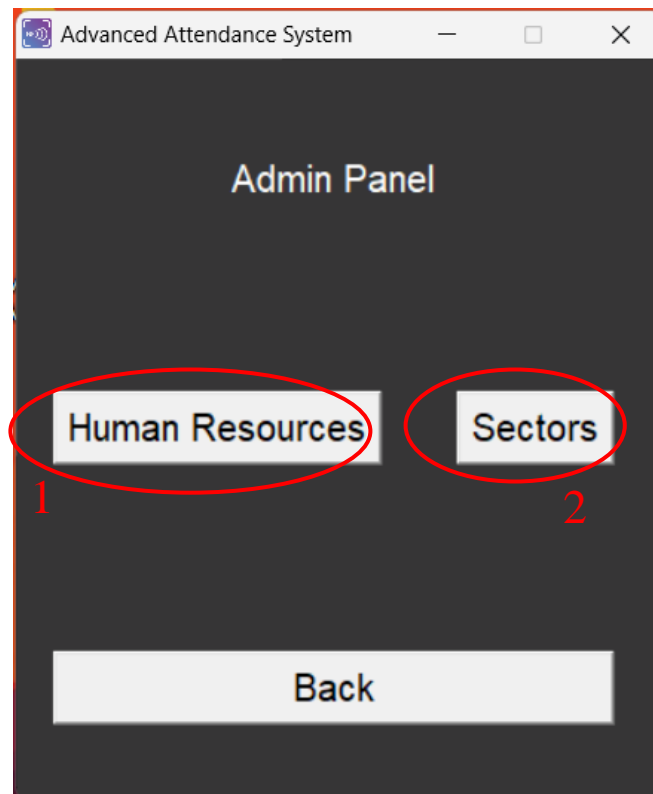


Figure 4.5.1: Admin panel

If the user/administrator wishes to see, update or delete the details of a user then it is enough to press the button "Human Resources" (button 1) to be transferred to the corresponding screen. If he wants to see information about his work sectors, he chooses the "Sectors" button (button 2).
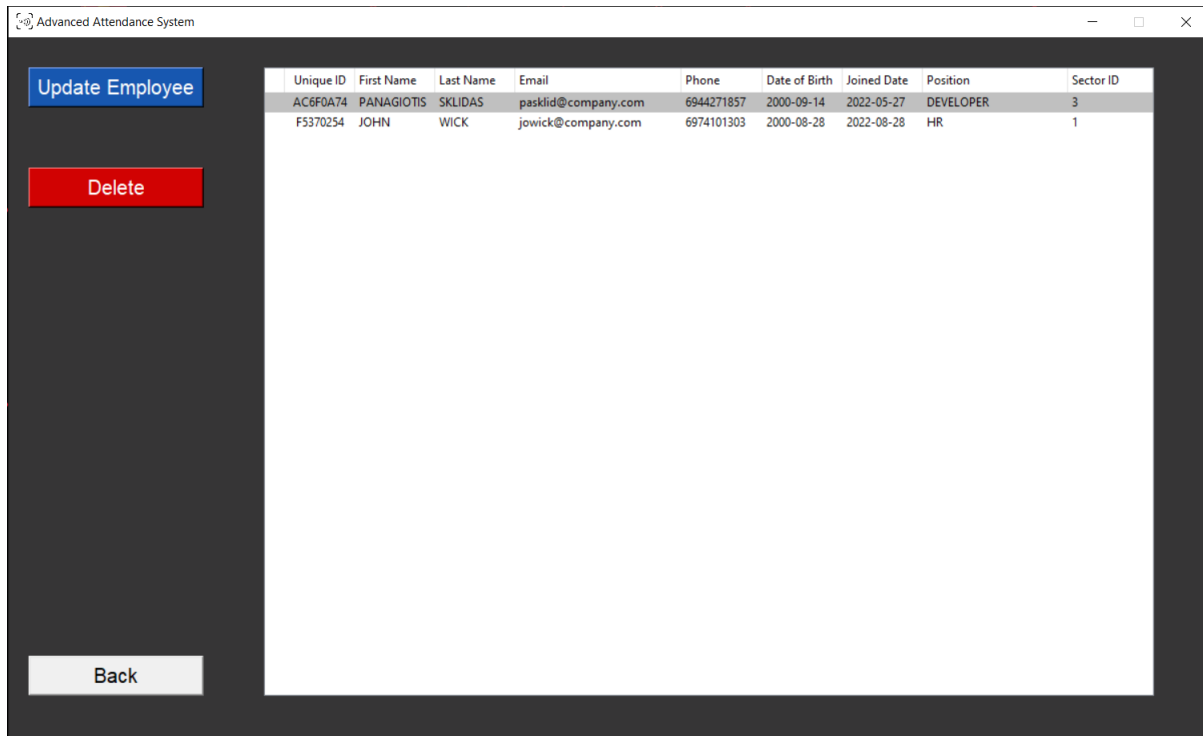
## 4.5.1 Human Resources



Figure 4.5.2: Human resources screen

If the user/administrator wants to update some information of a user, it is sufficient to simply select the user he wishes to edit and press the blue button "Update Employee" and a pop-up window will appear in which he can edit the user's information figure 4.5 .3
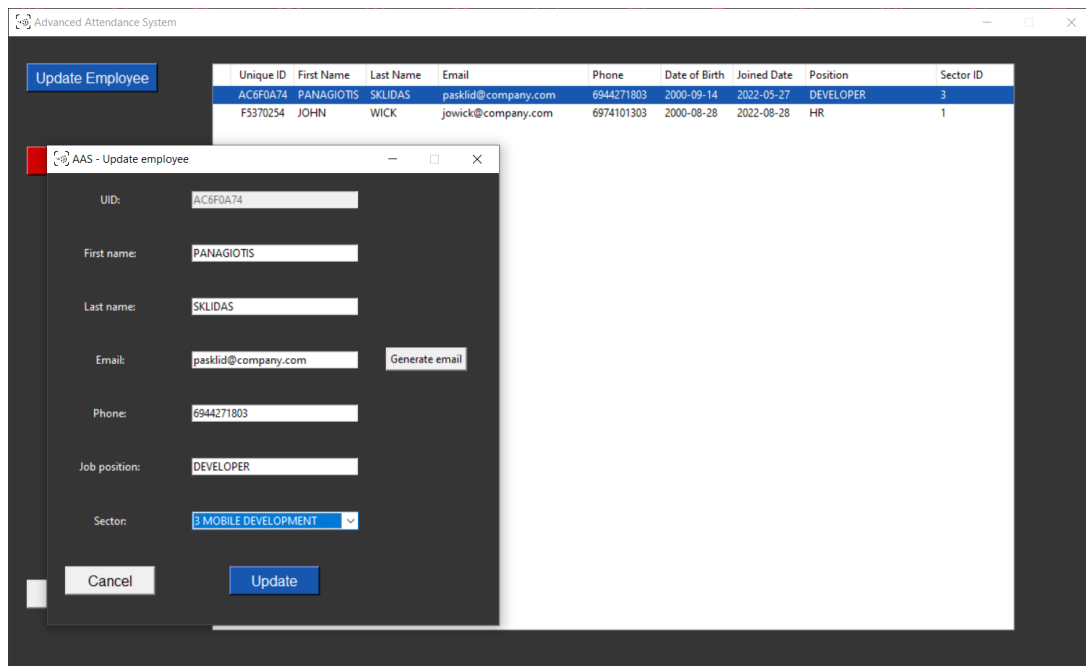


Figure 4.5.3: Update user details

After completing the changes, the administrator selects "Update".

ℹ Note 4.5.1: The table is updated automatically

     If the user/administrator wants to delete a user, it is sufficient to simply select the desired user and press the "Delete" button

ℹ Note 4.5.2: The table is updated automatically
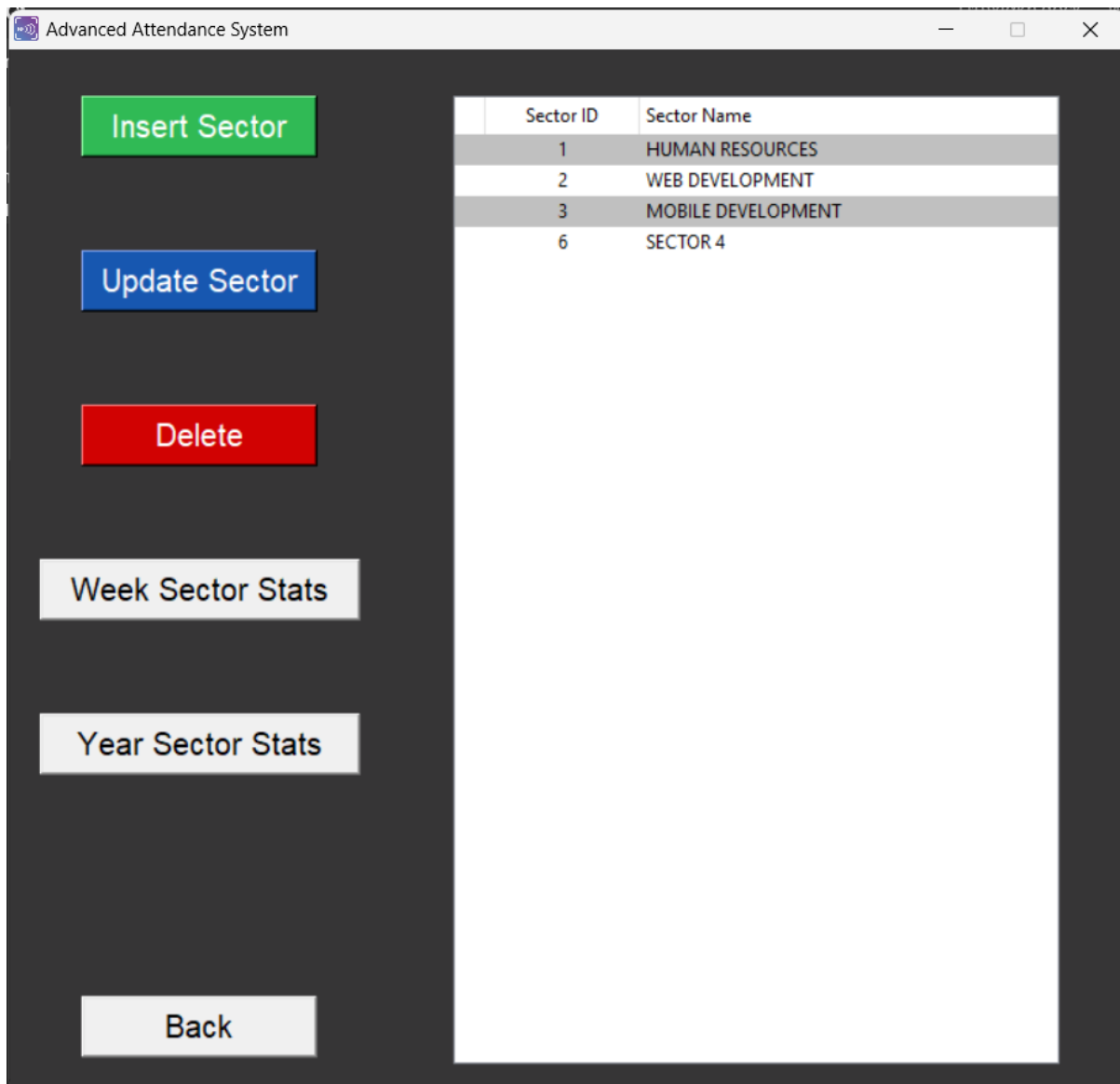
## 4.5.2 Sectors



Figure 4.5.4: Workspaces screen

If the user/administrator wants to create a new sector, it is enough to press the green button "Insert Sector" and a pop-up window will appear in which he can write the name of the new sector figure 4.5.5.
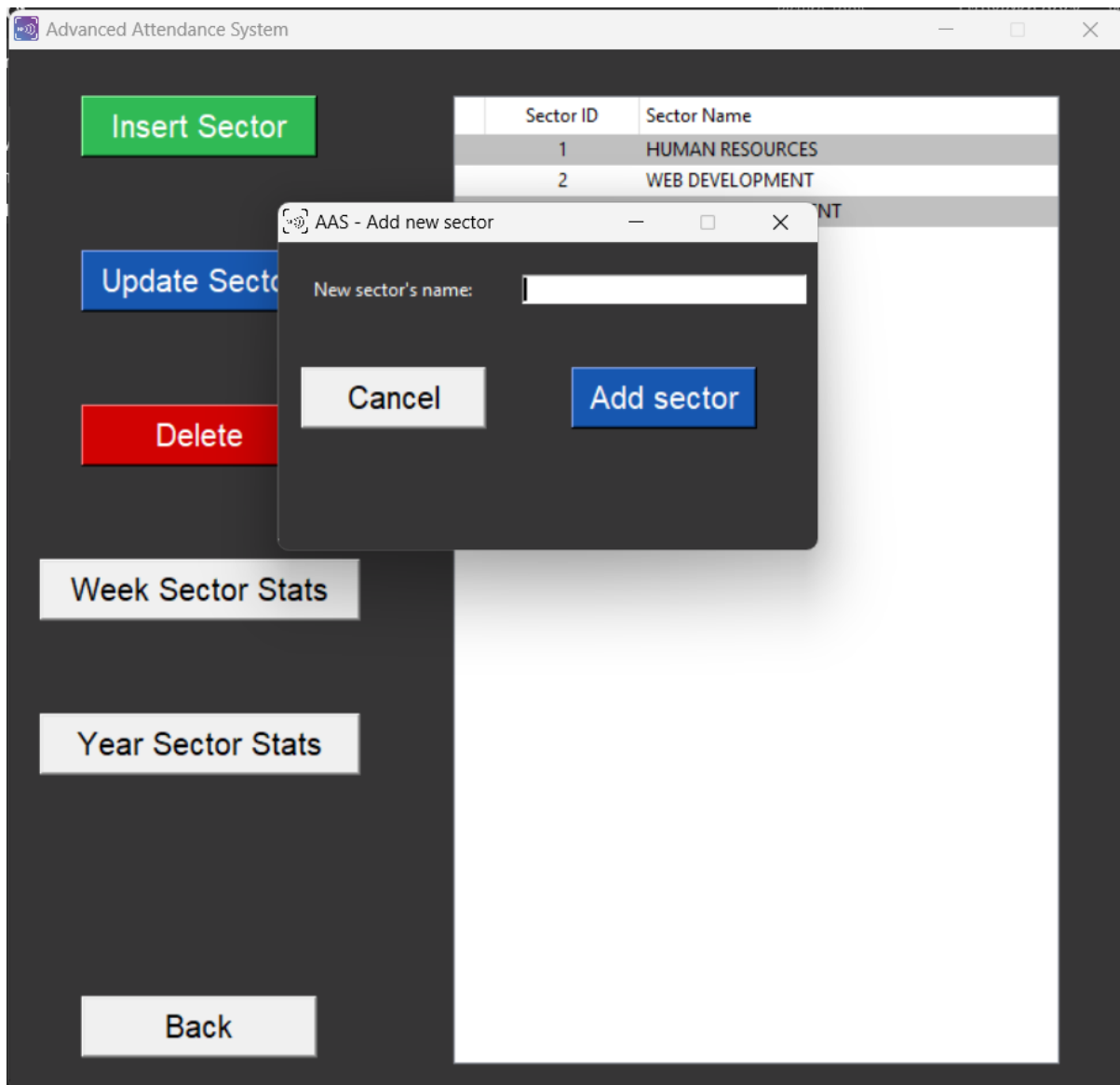


Figure 4.5.5: Create a new domain

Note 4.5.2: The table is updated automatically

If the user/administrator wants to update the name of a sector, it is sufficient to simply select the sector he wishes to modify and press the blue button "Update Sector" and a pop-up window will appear in which he can write the new name of the sector shape 4.5.6
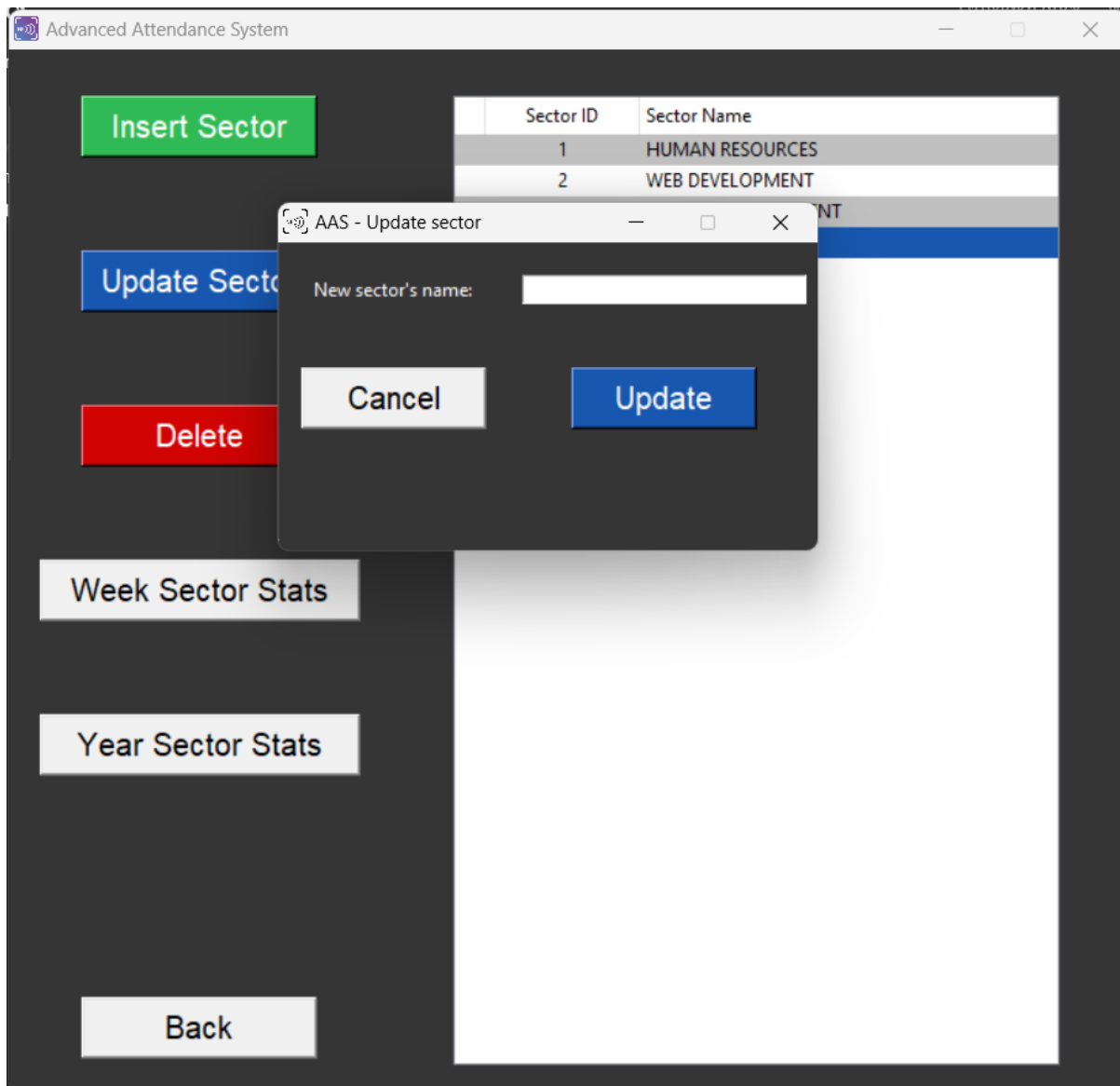
Figure 4.5.6: Domain update

**i** Note 4.5.2: The table is updated automatically

If the user/administrator wants to delete a domain, it is sufficient to simply select the desired domain and press the "Delete" button

**i** Note 4.5.2: The table is updated automatically

Finally, if the user/administrator wants to see the statistics of the week and time of the sectors, it is enough to select "Week Sector Stats" (Figure 4.5.7) or "Year Sector Stats" (Figure 4.5.8) respectively.
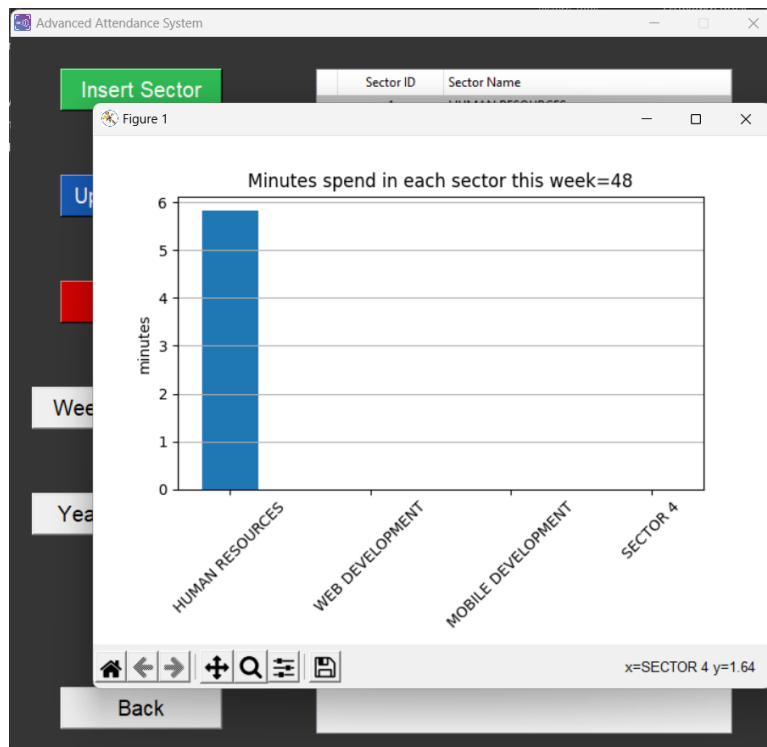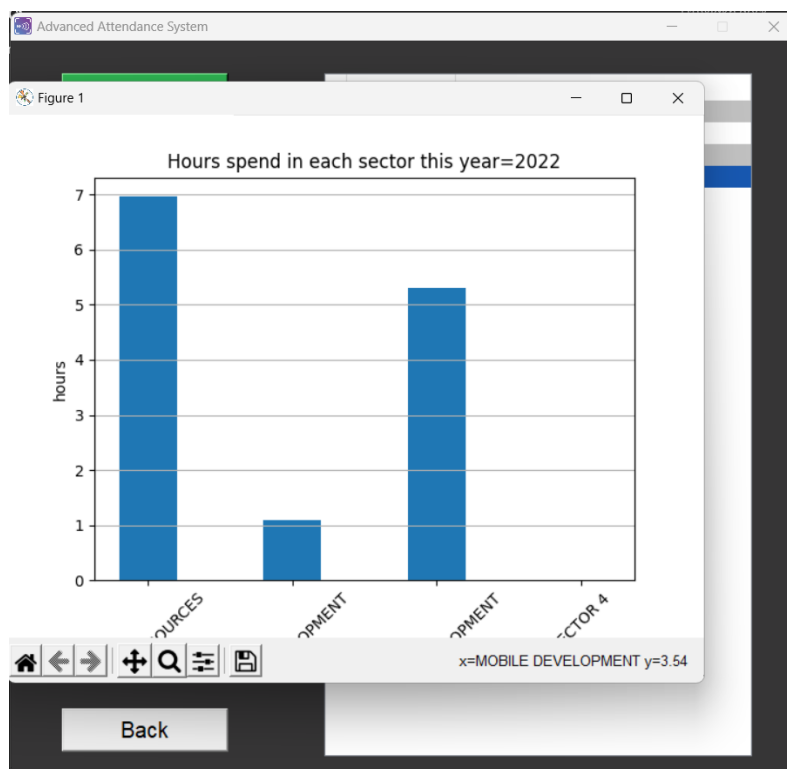
Figure 4.5.7: Week stats



Figure 4.5.8: Year stats

# 5 Frequently asked questions

1) In case I forget/lose my access card as an administrator what can I do?

In case you lost your RFID card, you should ask another administrator (employee in the HR department) to give you a new card and delete you from the system so that you can re-register in the system. If you forgot it, you cannot do anything and you will have to contact an administrator again to do the manual identification and login process.

2) In case I forget/lose my access card as a simple user what can I do?

In case you lost your RFID card, you should ask an administrator (employee in the HR department) to give you a new card and delete you from the system so that you can re-register. If you forgot it, you cannot do anything and you will have to contact an administrator again to do the manual identification and login process.

3) Who can see my data?

Your data, such as for example your name, phone, company email, RFID card code, job title, working position, date of birth and date of employment can only be seen by the administrator ( HR manager) and no one else.

4) Can I change my details?

Your data, such as your name, phone number, company email, job title and the position in which you work can only be changed by a system administrator, so you should contact the personnel manager and state what changes you want to make.