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TECHNICAL ASSISTANCE SERVICE FOR IPPC – INTEGRATED POLLUTION PREVENTION AND CONTROL IN TURKEY

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Inventory Database Application User Manual

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CFCU

NIRAS

T.C. ÇEVRE VE ŞEHİRCİLİK BAKANLIĞI

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Introduction

Inventory Database Application is an online application that provides inventory management features on the IPPC inventory.

Access to the inventory application is limited to authenticated users.

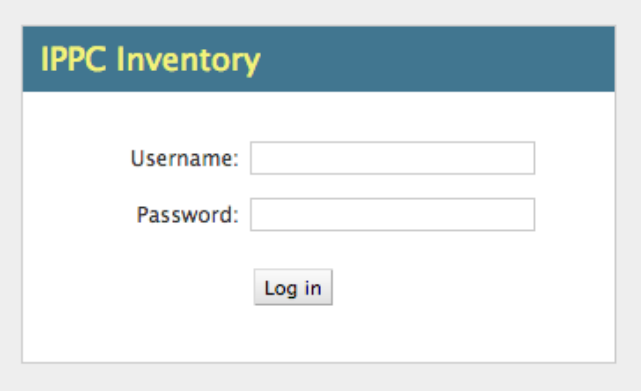

Figure 1 Login screen

Once a user is logged-in, an index page of available actions is displayed.

Figure 2 Index page

Inventory Data Management

The inventory core data are installations. Installations are normally operated by companies. A company may operate more than one installation.

Data management provides tools to create, update and delete:

- Installations
- Companies
- IPPC categories

Figure 3 Inventory administration page

Installations

The Installations section of the inventory is the core of the application. The index page to this section provides the list of installations. Using this view, experts can:

- Filter the installations by IPPC category or by province or by data source;
- Search for an installation by name;
- Access details of installations.

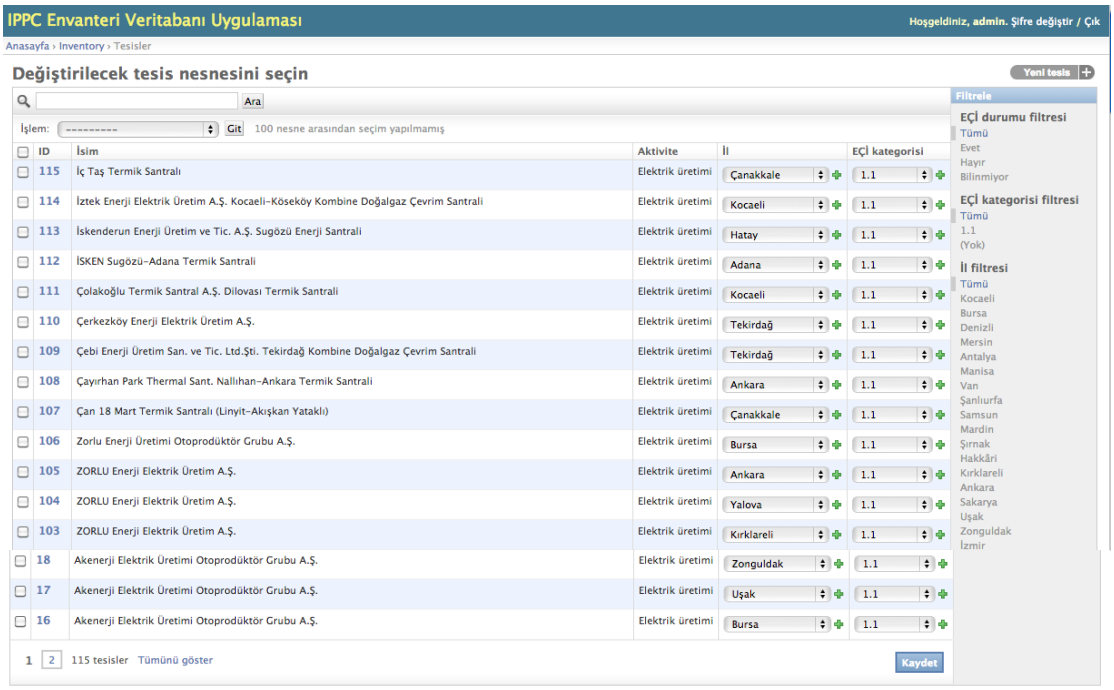

Figure 4 List of installations

Installation Details

The Installation Details page provides an interface for accessing and editing an installation’s information.

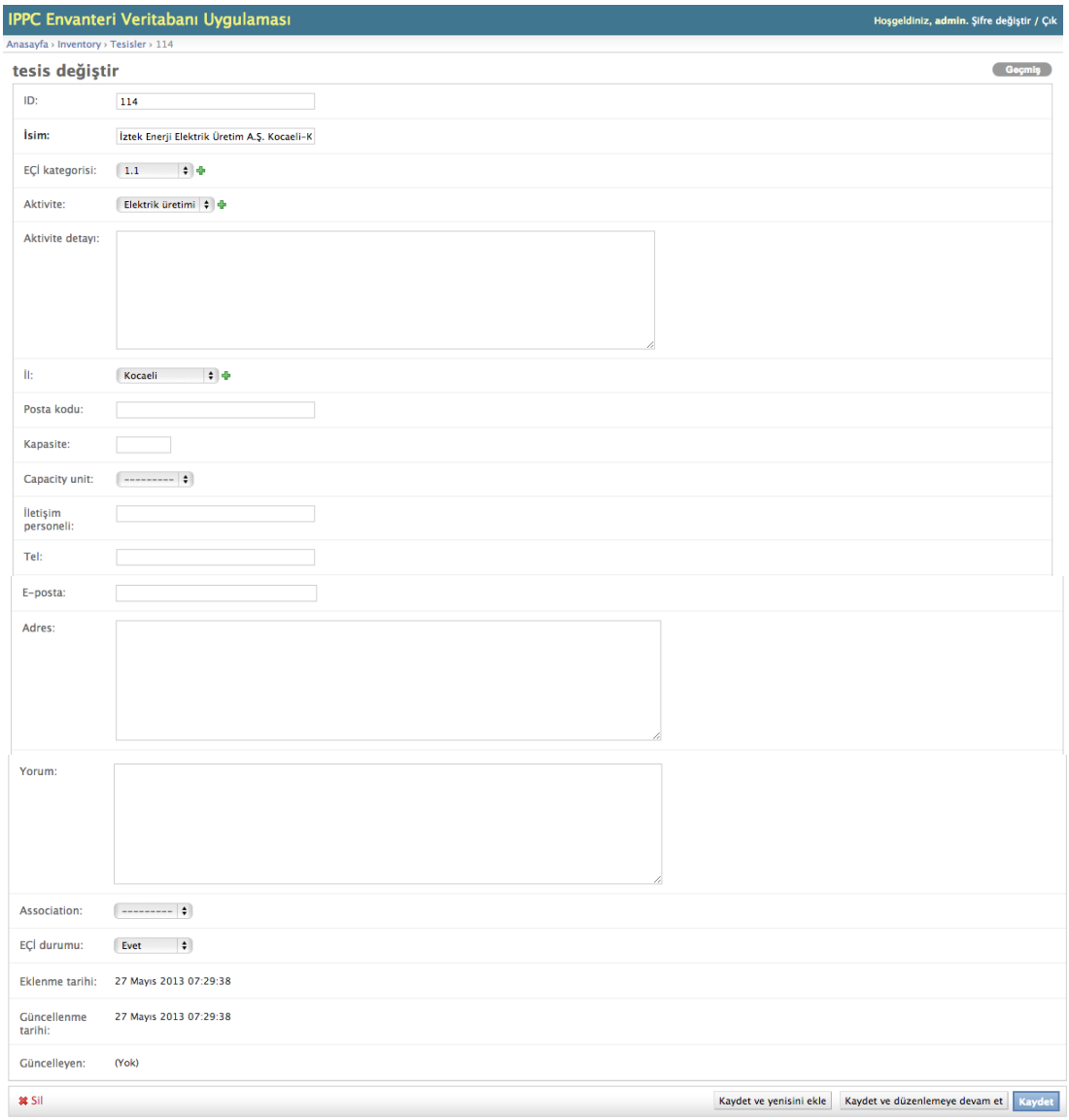

Figure 5 Editing installation data

IPPC Categories

The IPPC categories list view provides an interface to list, filter, search and add new categories.

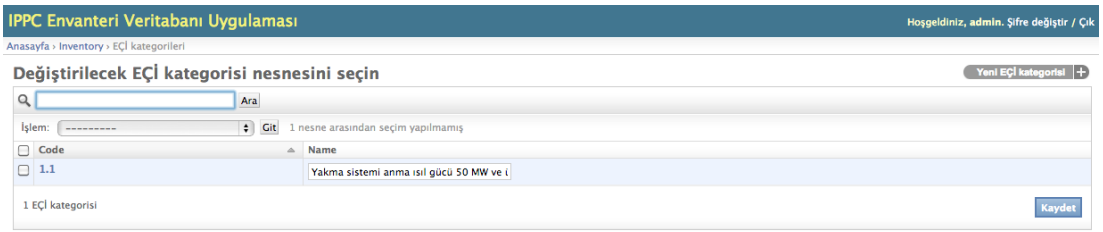

Figure 6 IPPC categories list

Experts can view and edit IPPC category details via the category detail view.

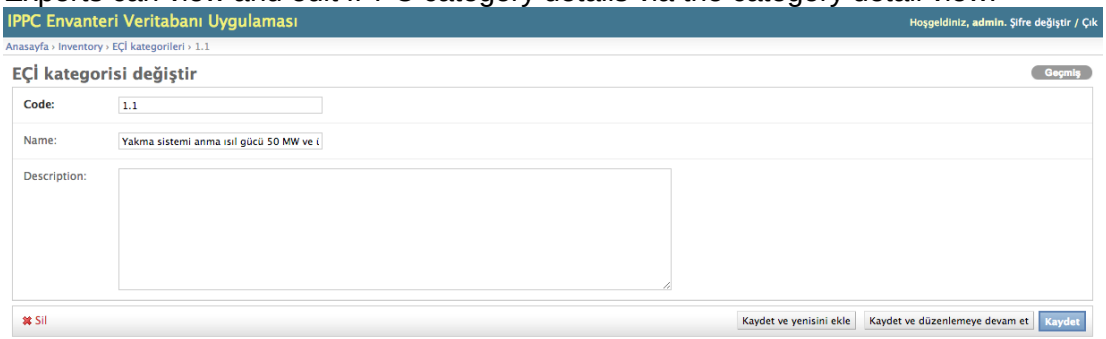

Figure 7 Editing an IPPC category

Importing Bulk Installation Data

The Inventory Database Application can import bulk data from Excel files. The data file should have the columns in the following order, as shown in the figure:

1. A unique identifier (optional); if left blank, an identifier is assigned by the Application
2. IPPC category name, e.g. ‘Energy’
3. IPPC subcategory name, e.g. ‘Large Combustion Plant’
4. IPPC category code, e.g. ‘1.1’
5. Name of the industrial association of which the operator of the installation is a member, if applicable
6. Name of the company or person that operates the installation
7. Contact phone number of the installation
8. Postal address of the installation
9. Province of the installation
10. Notes by experts for additional information; alternative IPPC categories for the installation can be noted here
11. Name of the data source; e.g. ‘TOBB’
12. A flag to hold if the installation is in scope of IPPC; this is ‘Yes’ by default, but gives an option to experts for questionable cases

	A	B	C	D	E	F	G	H	I	J	K	L
1	Identifier	Industry	SubIndustry	IPPC Category	Association	Company	Phone	Address	Province	Notes	Source	Is IPPC?
2	81-1	Enerji	Madeni yağ ür	1.2		Türkiye Petrol	02623163030	Güney mah. P	Kocaeli		TOBB	Yes
3	81-2	Enerji	Madeni yağ ür	1.2		Türkiye Petrol	02324985555	Atatürk mah. İ	İzmir		TOBB	Yes
4	81-3	Enerji	Madeni yağ ür	1.2		Türkiye Petrol	03182612000	Altınova mah. /	Kırıkkale		TOBB	Yes
5	81-4	Enerji	Madeni yağ ür	1.2		Türkiye Petrol	04882172100	Site mah. Özgi	Batman		TOBB	Yes
6	82-1	Enerji	Madeni yağ ür	1.2		Ersan Petrol Sanayi A.Ş. Narlı		Pazarcık	Kahramanmara		TOBB	Yes
7	83-1	Enerji	Madeni yağ ür	1.2		DENİZATI PETROKİMYA ÜRÜNLERİ SAN.VE			Kocaeli	4.0	2006	?
8	84-1	Enerji	Madeni yağ ür	1.2		FARUK KARAKAŞ (KARAKA		ANKARA ASFA	Denizli		2006	?
9	85-1	Enerji	Madeni yağ ür	1.2		PLASTAY MADENİ YAĞ SAN.		YAYALAR KÖY	İstanbul		2006	?

Figure 8 An example data file

The data file can have multiple sheets according to the preference of the expert as long as all of them are in the specified structure. The import procedure will go through all sheets and create installation data in the database. Import runs from the command line. To start import:

1. Open a terminal window and go to the directory of the inventory application:
> *cd c:\ippc*

2. Activate the application environment:
   > *. env/bin/activate*

3. Run the import command (replace “data.xls” with the name of data file):
   > *python manage.py importdata data.xls*

This will start the import procedure and add new installation data to the inventory. If it is wanted to reset the database and remove existing data, add “--purge" option to the end of the command; e.g.:

> *python manage.py importdata data.xls --purge*

If there are any errors or warnings, these will be reported during the import and if everything goes correctly, a success message will be displayed.

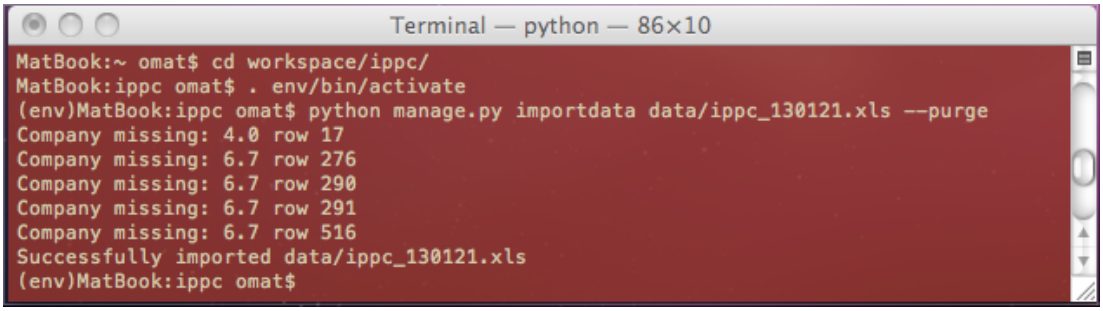

Figure 9 Error/Warning Messages

Exporting Inventory Data

The inventory application provides tools to export data as an Excel file split by IPPC category or province. The format of the file is similar to that of import file.

There are two ways to export installation data:

- Exporting via the web interface
- Exporting via the terminal

Exporting via the web interface

At the installation list page, select the installations you want to export by clicking the checkboxes next to the installation names. Then from the action dropdown menu to the top of the list, select “export” and click “go”. This will create an MS Excel file that contains the selected installations.

You can use the filters on the sidebar or the search box to filter the installations you want to export. To select all listed installations for export, click on the checkbox at the top of the checkboxes column.

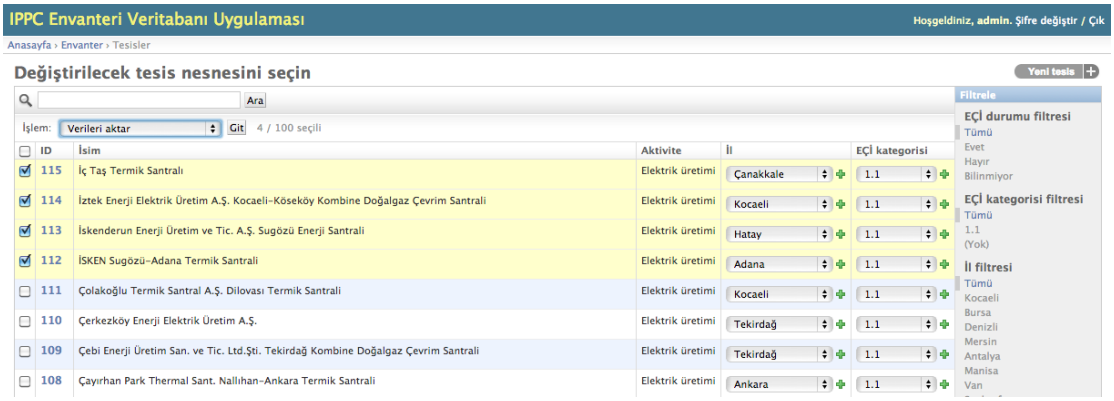

Figure 10 Exporting installation data via web interface

When the export is completed, you will be displayed a link to download the created file.

Exporting via the terminal

To start data export, repeat steps 1 & 2 in previous section on data import, then run the export command (replace “export.xls” with the name of the data file):

> python manage.py exportdata export.xls

By default, the inventory data will be split to sheets by the installation’s IPPC categories. If the inventory data is required by province, add the option “--format=province” to the end of the command:

> python manage.py exportdata export.xls --format=province

If the inventory data is required alphabetically, add the option “--format=alpha” to the end of the command:

> python manage.py exportdata export.xls --format=alpha

Any of the above commands will start the export procedure and create the export file with the name specified in the command. If everything goes correctly, a success message will be displayed at the end of the export operation.

Reporting – Inventory Statistics

The inventory statistics can be exported to Excel files as tables of provinces against IPPC categories, where each cell contains the number of installations in the corresponding industry category and province.

There are two ways to create this report:

- Via the web interface
- Via the terminal

Creating the report via web interface

At the installation list page, select all the installations by clicking the top most checkbox. Then from the action dropdown menu to the top of the list, select “report” and click “go”. This will create an MS Excel file that contains the statistics of the inventory.

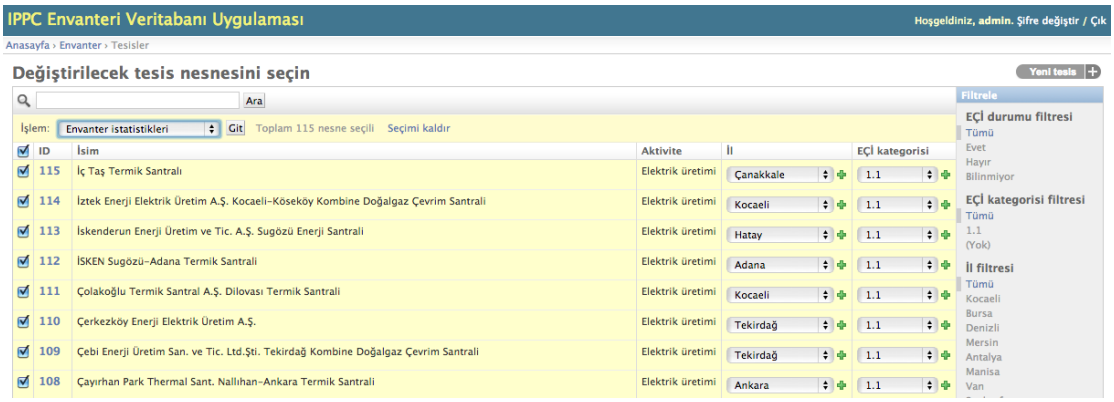

Figure 11 An example of the inventory statistics report

When the file creation is completed, you will be displayed a link to download the created file.

Creating the report via the terminal

To generate these statistics, repeat steps 1 & 2 in previous sections on data import / export, and then run the stats command (replace “stats.xls” with the name of the report required to be created):

> python manage.py stats stats.xls

This operation will create a cumulative summary of the inventory in the following format:

	A	B	C	D	E	F	G	H	I
1		1.1	1.2	1.3	2.1	2.2	2.3(a)	2.3(c)	Total
2	Adana	3	7	1	0	5	11	0	152
3	Ankara	9	16	4	2	12	36	2	438
4	Antalya	1	1	0	0	2	0	0	100
5	Artvin	1	0	4	0	0	0	0	6
6	Aydın	2	0	8	0	1	2	0	30
7	Balıkesir	1	3	10	1	0	6	0	82
8	Bilecik	1	0	0	0	2	0	1	24
9	Bolu	0	2	5	0	0	0	0	36
10	Burdur	0	3	2	0	0	1	0	18
11	Bursa	10	5	5	2	5	11	1	317
12	Çanakkale	5	0	1	0	1	0	0	31
13	Mersin	3	8	0	0	2	2	0	86
14	İstanbul	6	31	10	1	29	67	0	1652
15	İzmir	7	45	7	4	15	26	0	495
16	Total	126	244	271	18	168	332	5	6206
17									

Figure 12 An example of the cumulative report

User Management

User management is intended only for administrators in the core project team. Users with management privileges on user information are displayed a list of existing users as follows:

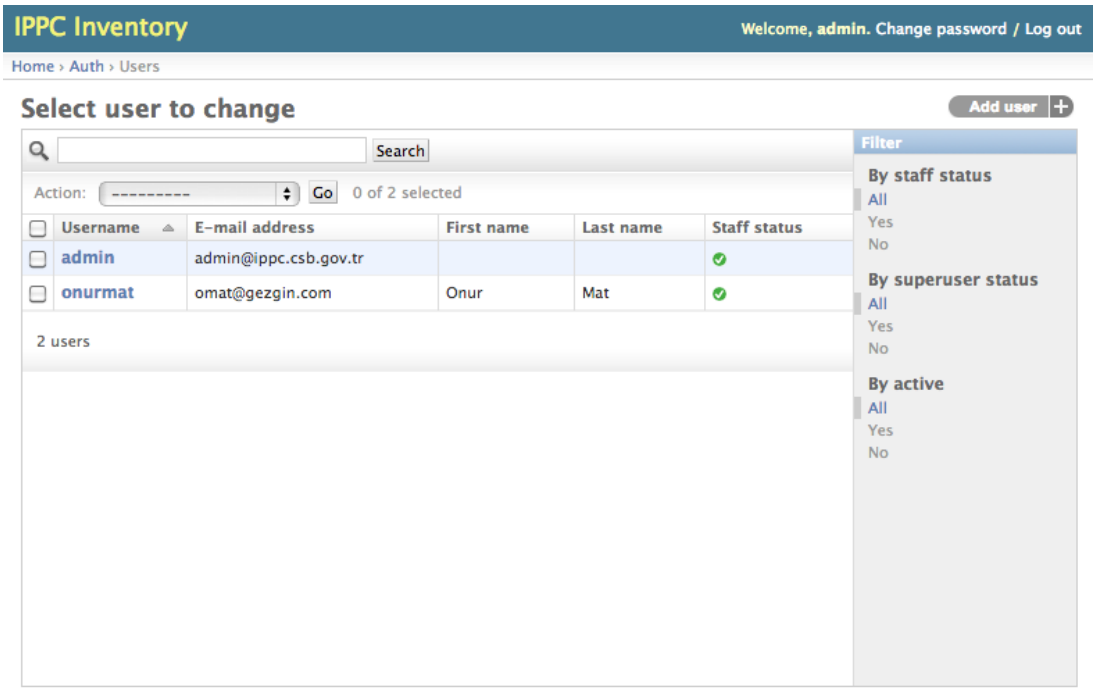

Figure 13 Users list

Using this view, the administrators are able to create new users, assign roles to users, edit user information and remove users from the Application.

Adding users is done in two steps as follows:

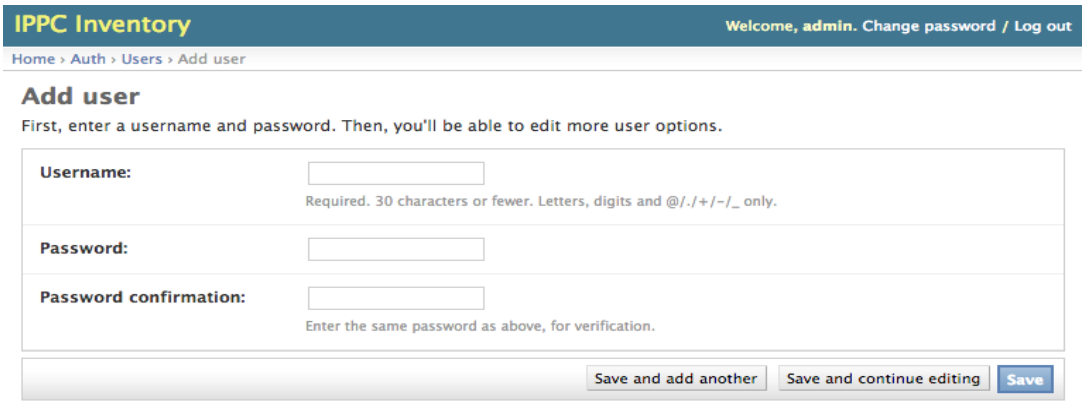

Figure 14 Creating a new user

After saving the login information for the new user, a form for filling other user details will be displayed.

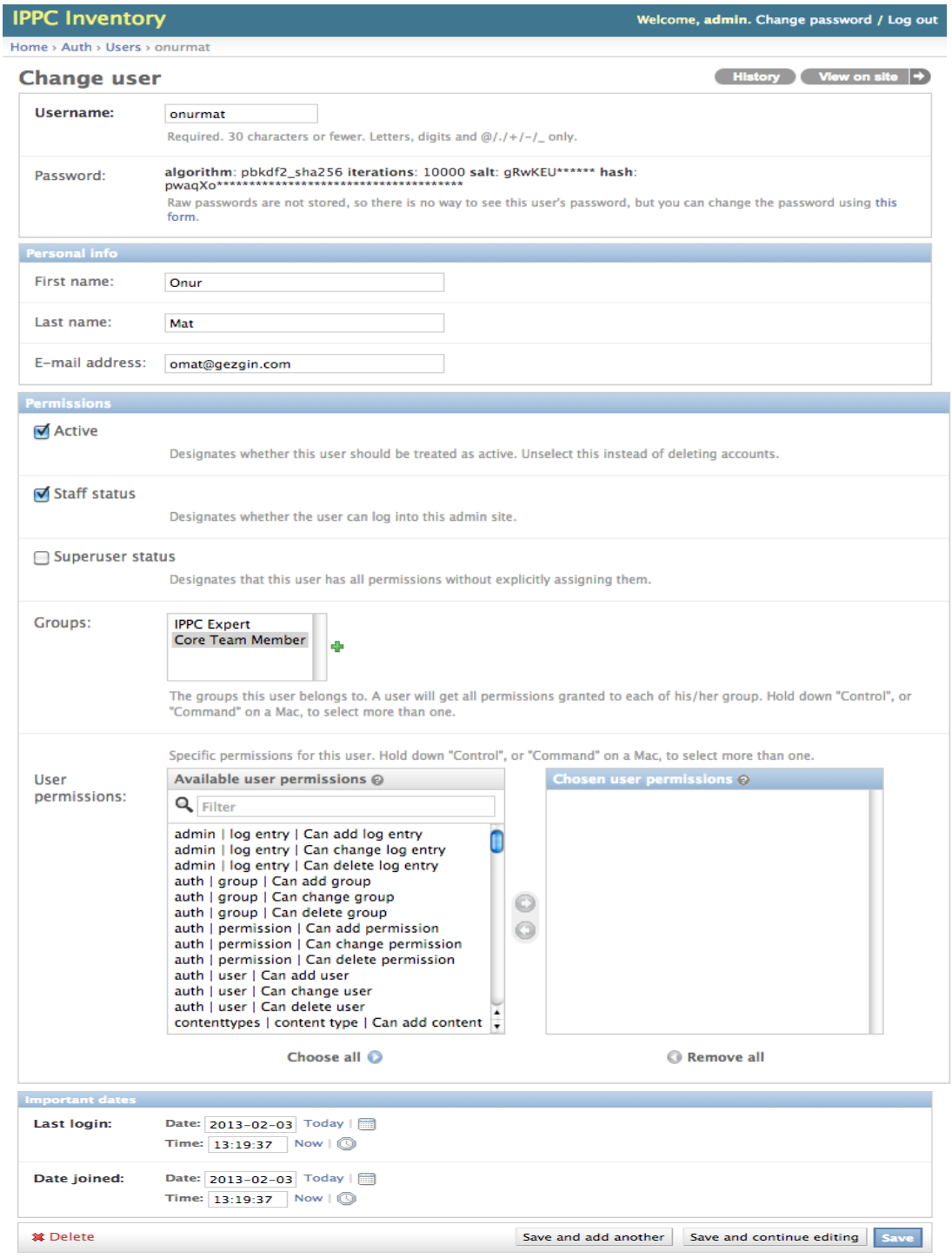

Figure 15 Editing user details

For a user to be able to access the inventory management features, both “active” and “staff status” check boxes should be checked.

If “Super user status” is checked as well, the user will have all privileges on the database application regardless of the groups and permissions s/he is assigned to.

Pre-defined user groups are:

- Administrators
- Core team members
- IPPC Experts

Administrators do not have any limitation and they assume all privileges. They can create new users and group roles. Members of the core team can do any updates regarding the inventory. IPPC experts’ are limited only to add, update and delete installation data. Administrators can define new roles and groups via admin interface under the “groups” link.

Data Model

Installation Data Model

Installation data are the core of the inventory. Installations have the following attributes and relations with companies, IPPC categories, provinces and users:

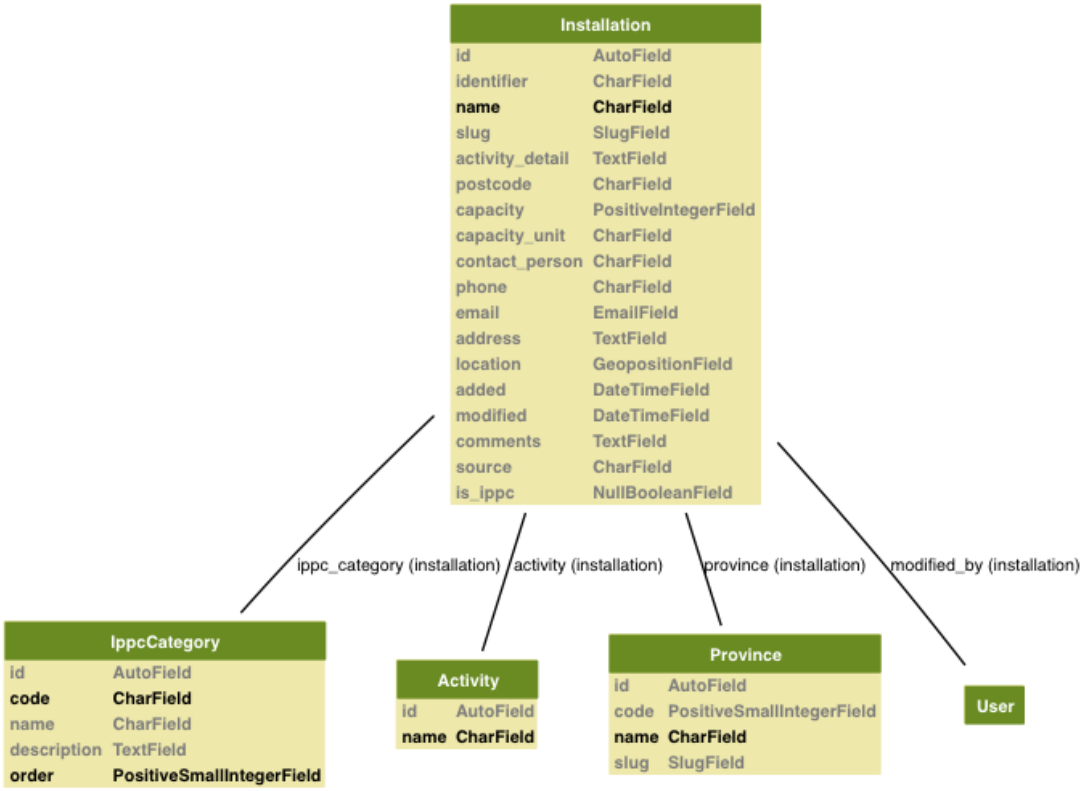

Figure 16 Installation model and its relations

Users and Authentication Data Model

Experts have permission to access and manage data in the inventory according to their roles. The Project Team at the Ministry has management privileges on inventory data. IPPC experts have limited permission to manage installation data. The following diagram illustrates attributes and relations of user and permission related models:

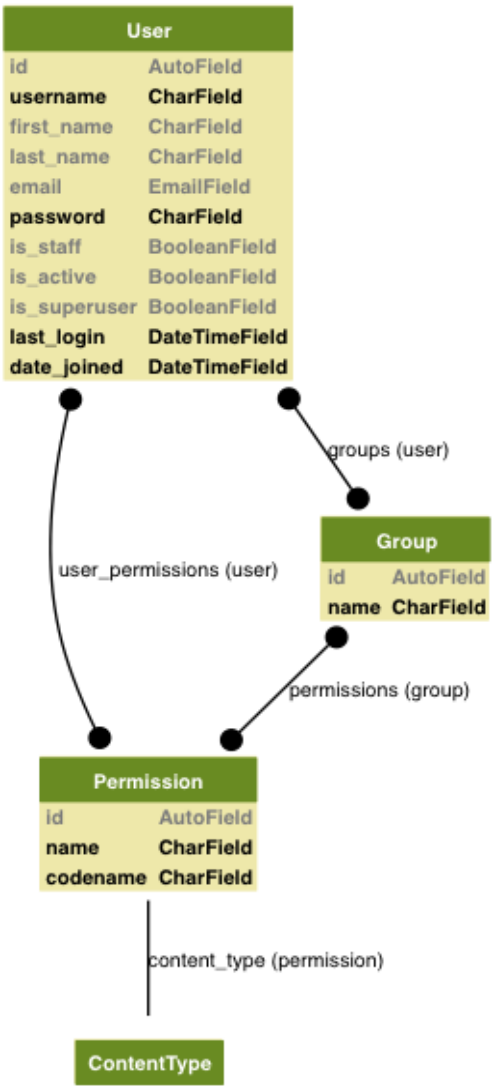

Figure 17 User and authentication models

Server Setup and Maintenance

Connecting to the server

On Windows server, using the Remote Desktop Connection application connect to the server. Enter the following information when prompted:

Computer: 10.9.32.54

Then click on the options and enter username as ‘ippc’ and press ‘connect’. You will be prompted for the password. Enter the password and connect.

Installing the application

Download and install the following required Windows packages:

- latest Python 2 version from (www.python.org)
- Distribute and Pip (http://www.lfd.uci.edu/~gohlke/pythonlibs/)
- PIL (http://www.pythonware.com/products/pil/)
- PyWin32 (http://sourceforge.net/projects/pywin32/)

Install the application and environment:

- Copy the ‘ippc’ folder to ‘C:\ippc\’
- Open the terminal and in the terminal execute the following commands:
    - cd C:\ippc\
    - virtualenv env
    - .env\Scripts\activate

If you get any errors regarding the script execution permissions, run the terminal as administrator and issue the following command in ‘powershell’ to allow signed scripts to be executed:

- Set-ExecutionPolicy AllSigned

Add the following to the environment path variable:

- “C:\Python27\;C:\Python27\Scripts”

Switch to the initial terminal window and install required Python packages by running the following command:

- pip install –r requirements.txt

Configure IIS by running the following command:

- python manage.py winfcgi_install --binding=http://ippc.csb.gov.tr:80

This command will:

- Create the FastCGI application to serve the Inventory application,
- Create a site named ‘ippc’ with the ippc.csb.gov.tr address pointing to the application, Install a “web.config” file in the root of the project that handles the redirection of requests to the inventory application.

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