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Inventory Database Application User Manual

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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.

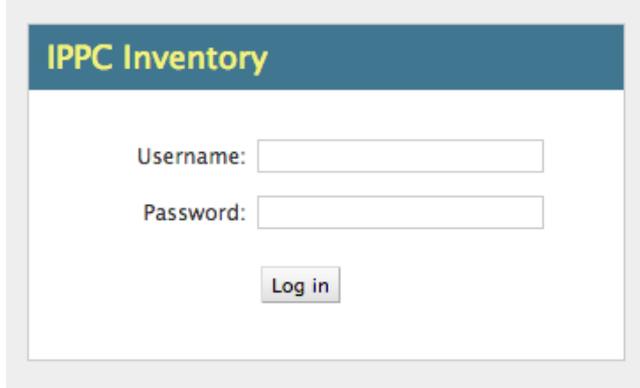


Figure 1 Login screen

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



Site yönetimi	
Auth	
Gruplar	Yeni Düzenle
Users	Yeni Düzenle
Envanter	
Aktiviteler	Yeni Düzenle
EÇİ kategorileri	Yeni Düzenle
Tesisler	Yeni Düzenle
İller	Yeni Düzenle

İşlem Geçmişi	
İşlemlerim	
5241	Tesis
6.11	Ippc category
6.7	Ippc category
6.6(a)	Ippc category
6.6	Ippc category
6.5	Ippc category
6.4(c)	Ippc category
6.4(b)(i)	Ippc category
6.4(b)(ii)	Ippc category
6.4(b)(i)	Ippc category

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



IPPC Envanteri Veritabanı Uygulaması Hoşgeldiniz, admin. Şifre değiştir / Çık

Anasayfa > Envanter

Envanter yönetimi

Envanter	
Aktiviteler	+Yeni Düzenle
EÇİ kategorileri	+Yeni Düzenle
Tesisler	+Yeni Düzenle
İller	+Yeni Düzenle

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.

IPPC Envanteri Veritabanı Uygulaması Hoşgeldiniz, admin. Şifre değiştir / Çık

Anasayfa > Inventory > Tesisler

Değiştirilecek tesis nesnesini seçin Yeni tesis +

Q Ara Filtrele

İşlem: ----- Göt 100 nesne arasından seçim yapılmamış

ID	İsim	Aktivite	İl	EÇİ kategorisi
<input type="checkbox"/>	115 İç Taş Termik Santrali	Elektrik üretimi	Çanakkale	1.1
<input type="checkbox"/>	114 İztek Enerji Elektrik Üretim A.Ş. Kocaeli-Köseköy Kombine Doğalgaz Çevrim Santrali	Elektrik üretimi	Kocaeli	1.1
<input type="checkbox"/>	113 İskenderun Enerji Üretim ve Tic. A.Ş. Sugözü Enerji Santrali	Elektrik üretimi	Hatay	1.1
<input type="checkbox"/>	112 İSKEN Sugözü-Adana Termik Santrali	Elektrik üretimi	Adana	1.1
<input type="checkbox"/>	111 Çolakoğlu Termik Santral A.Ş. Dilovası Termik Santrali	Elektrik üretimi	Kocaeli	1.1
<input type="checkbox"/>	110 Çerkezköy Enerji Elektrik Üretim A.Ş.	Elektrik üretimi	Tekirdağ	1.1
<input type="checkbox"/>	109 Çebi Enerji Üretim San. ve Tic. Ltd.Şti. Tekirdağ Kombine Doğalgaz Çevrim Santrali	Elektrik üretimi	Tekirdağ	1.1
<input type="checkbox"/>	108 Çayırhan Park Thermal Sant. Nallıhan-Ankara Termik Santrali	Elektrik üretimi	Ankara	1.1
<input type="checkbox"/>	107 Çan 18 Mart Termik Santrali (Linyit-Akışkan Yataklı)	Elektrik üretimi	Çanakkale	1.1
<input type="checkbox"/>	106 Zorlu Enerji Üretimi Otoproduktör Grubu A.Ş.	Elektrik üretimi	Bursa	1.1
<input type="checkbox"/>	105 ZORLU Enerji Elektrik Üretim A.Ş.	Elektrik üretimi	Ankara	1.1
<input type="checkbox"/>	104 ZORLU Enerji Elektrik Üretim A.Ş.	Elektrik üretimi	Yalova	1.1
<input type="checkbox"/>	103 ZORLU Enerji Elektrik Üretim A.Ş.	Elektrik üretimi	Kirklareli	1.1
<input type="checkbox"/>	18 Akenerji Elektrik Üretimi Otoproduktör Grubu A.Ş.	Elektrik üretimi	Zonguldak	1.1
<input type="checkbox"/>	17 Akenerji Elektrik Üretimi Otoproduktör Grubu A.Ş.	Elektrik üretimi	Uşak	1.1
<input type="checkbox"/>	16 Akenerji Elektrik Üretimi Otoproduktör Grubu A.Ş.	Elektrik üretimi	Bursa	1.1

1 2 115 tesisler Tümünü göster Kaydet

EÇİ durumu filtresi

Tümü

Evet

Hayır

Bilinmiyor

EÇİ kategorisi filtresi

Tümü

1.1

(Yok)

İl filtresi

Tümü

Kocaeli

Bursa

Denizli

Mersin

Antalya

Manisa

Van

Şanlıurfa

Samsun

Mardin

Şırnak

Hakkâri

Kirklareli

Ankara

Sakarya

Uşak

Zonguldak

İzmir

Figure 4 List of installations

Installation Details

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

IPPC Envanteri Veritabanı Uygulaması Hoşgeldiniz, admin. Şifre değiştir / Çık

Anasayfa > Inventory > Tesisler > 114

tesis değiştir Geçmiş

ID:

İsim:

EÇİ kategorisi:

Aktivite:

Aktivite detay:

İl:

Posta kodu:

Kapasite:

Capacity unit:

İletişim personeli:

Tel:

E-posta:

Adres:

Yorum:

Association:

EÇİ durumu:

Eklenme tarihi: 27 Mayıs 2013 07:29:38

Güncellenme tarihi: 27 Mayıs 2013 07:29:38

Güncelleyen: (Yok)

Figure 5 Editing installation data

IPPC Categories

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

IPPC Envanteri Veritabanı Uygulaması Hoşgeldiniz, admin. Şifre değiştir / Çık

Anasayfa > Inventory > EÇİ kategorileri

Değiştirilecek EÇİ kategorisi nesnesini seçin Yeni EÇİ kategorisi +

İşlem: 1 nesne arasından seçim yapılmamış

<input type="checkbox"/> Code	<input type="checkbox"/> Name
<input type="checkbox"/> 1.1	Yakma sistemi anma ısıl gücü 50 MW ve i

1 EÇİ kategorisi

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

J	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 ün	1.2		Türkiye Petrol	02623163030	Güney mah. Pi Kocaeli			TOBB	Yes
3	81-2	Enerji	Madeni yağ ün	1.2		Türkiye Petrol	02324985555	Atatürk mah. İ Izmir			TOBB	Yes
4	81-3	Enerji	Madeni yağ ün	1.2		Türkiye Petrol	03182612000	Altınova mah. / Kırıkkale			TOBB	Yes
5	81-4	Enerji	Madeni yağ ün	1.2		Türkiye Petrol	04882172100	Site mah. Özgi Batman			TOBB	Yes
6	82-1	Enerji	Madeni yağ ün	1.2		Ersan Petrol Sanayi A.Ş. Narlı	Pazarcık	Kahramanmaraş			TOBB	Yes
7	83-1	Enerji	Madeni yağ ün	1.2		DENİZATI PETROKİMYA ÜRÜNLERİ SAN.VE	Kocaeli			2006	?	
8	84-1	Enerji	Madeni yağ ün	1.2		FARUK KARAKAŞ (KARAKA; ANKARA ASF	Denizli			2006	?	
9	85-1	Enerji	Madeni yağ ün	1.2		PLASTAY MADENİ YAĞ SAN. YAYALAR KÖY	Istanbul			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:

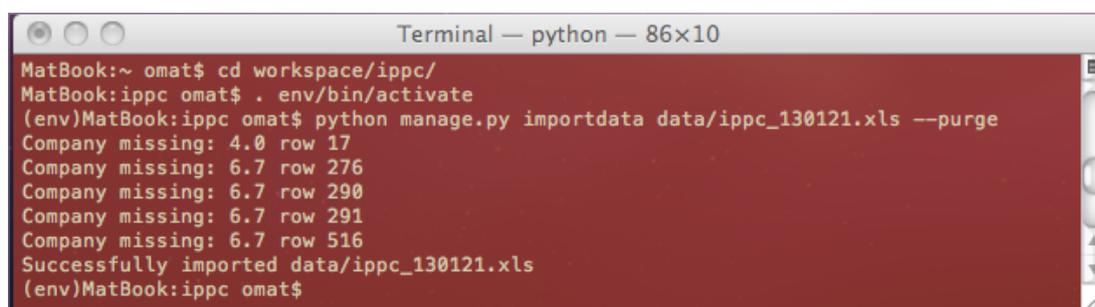
1. Open a terminal window and go to the directory of the inventory application:
> `cd c:lppc`

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.

A terminal window titled "Terminal — python — 86x10" showing a series of commands and their outputs. The user navigates to the workspace/ippc directory, activates the environment, and runs the importdata command with the --purge option. The output shows several "Company missing" warnings for specific rows and a final "Successfully imported" message.

```
MatBook:~ omat$ cd workspace/ippc/
MatBook:ippc omat$ . env/bin/activate
(env)MatBook:ippc omat$ python manage.py importdata data/ippc_130121.xls --purge
Company missing: 4.0 row 17
Company missing: 6.7 row 276
Company missing: 6.7 row 290
Company missing: 6.7 row 291
Company missing: 6.7 row 516
Successfully imported data/ippc_130121.xls
(env)MatBook:ippc omat$
```

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.

The screenshot shows the 'Değiştirilecek tesis nesnesini seçin' (Select the installation object to be changed) page. It features a search bar, a table of installations, and a sidebar with filters. The table has columns for ID, İsim (Name), Aktivite (Activity), İl (Province), and EÇİ kategorisi (EÇİ category). The sidebar includes filters for 'EÇİ durumu' (EÇİ status), 'EÇİ kategorisi' (EÇİ category), and 'İl' (Province).

ID	İsim	Aktivite	İl	EÇİ kategorisi
<input checked="" type="checkbox"/>	115 İç Taş Termik Santrali	Elektrik üretimi	Çanakkale	1.1
<input checked="" type="checkbox"/>	114 İztek Enerji Elektrik Üretim A.Ş. Kocaeli-Köseköy Kombine Doğalgaz Çevrim Santrali	Elektrik üretimi	Kocaeli	1.1
<input checked="" type="checkbox"/>	113 İskenderun Enerji Üretim ve Tic. A.Ş. Sugözü Enerji Santrali	Elektrik üretimi	Hatay	1.1
<input checked="" type="checkbox"/>	112 İSKEN Sugözü-Adana Termik Santrali	Elektrik üretimi	Adana	1.1
<input type="checkbox"/>	111 Çolakoğlu Termik Santral A.Ş. Dilovası Termik Santrali	Elektrik üretimi	Kocaeli	1.1
<input type="checkbox"/>	110 Çerkezköy Enerji Elektrik Üretim A.Ş.	Elektrik üretimi	Tekirdağ	1.1
<input type="checkbox"/>	109 Çebi Enerji Üretim San. ve Tic. Ltd.Şti. Tekirdağ Kombine Doğalgaz Çevrim Santrali	Elektrik üretimi	Tekirdağ	1.1
<input type="checkbox"/>	108 Çayırhan Park Thermal Sant. Nallıhan-Ankara Termik Santrali	Elektrik üretimi	Ankara	1.1

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.

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:

The screenshot shows the 'Users' management page in the IPPC Inventory application. At the top, it says 'IPPIC Inventory' and 'Welcome, admin. Change password / Log out'. Below that, the breadcrumb is 'Home > Auth > Users'. The main heading is 'Select user to change' with an 'Add user +' button. There is a search bar and an 'Action:' dropdown. Below that is a table with columns: Username, E-mail address, First name, Last name, and Staff status. The table contains two rows: 'admin' with email 'admin@ippc.csb.gov.tr' and 'onurmat' with email 'omat@gezgin.com', first name 'Onur', last name 'Mat', and both have a green checkmark in the 'Staff status' column. Below the table, it says '2 users'. On the right, there is a 'Filter' sidebar with sections: 'By staff status' (All, Yes, No), 'By superuser status' (All, Yes, No), and 'By active' (All, Yes, No).

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:

The screenshot shows the 'Add user' form in the IPPC Inventory application. At the top, it says 'IPPIC Inventory' and 'Welcome, admin. Change password / Log out'. Below that, the breadcrumb is 'Home > Auth > Users > Add user'. The main heading is 'Add user'. Below the heading, there is a text box for 'Username:' with a required field note: 'Required. 30 characters or fewer. Letters, digits and @/./+/-/_ only.'. There are two text boxes for 'Password:' and 'Password confirmation:', with a note: 'Enter the same password as above, for verification.'. At the bottom, there are three buttons: 'Save and add another', 'Save and continue editing', and 'Save'.

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.

The screenshot shows the 'Change user' interface in the IPPC Inventory system. The page title is 'IPPC Inventory' and the user is logged in as 'admin'. The breadcrumb trail is 'Home > Auth > Users > onurmat'. The interface includes several sections:

- Change user:** Contains fields for 'Username' (onurmat) and 'Password'. The password field shows the algorithm (pbkdf2_sha256), iterations (10000), salt (gRwKEU*****), and hash (pwaqXo*****). A note states: 'Raw passwords are not stored, so there is no way to see this user's password, but you can change the password using this form.'
- Personal Info:** Contains fields for 'First name' (Onur), 'Last name' (Mat), and 'E-mail address' (omat@gezgin.com).
- Permissions:**
 - Active:** Designates whether this user should be treated as active. Unselect this instead of deleting accounts.
 - Staff status:** Designates whether the user can log into this admin site.
 - Superuser status:** Designates that this user has all permissions without explicitly assigning them.
 - Groups:** A list box containing 'IPPC Expert' and 'Core Team Member' with a plus sign to add more.
- User permissions:** A section for assigning specific permissions. It features two panes: 'Available user permissions' and 'Chosen user permissions'. The available list includes permissions like 'Can add log entry', 'Can change log entry', 'Can delete log entry', 'Can add group', 'Can change group', 'Can delete group', 'Can add permission', 'Can change permission', 'Can delete permission', 'Can add user', 'Can change user', 'Can delete user', and 'Can add content'. Buttons for 'Choose all' and 'Remove all' are present.
- Important dates:**
 - Last login:** Date: 2013-02-03 Today | Calendar icon; Time: 13:19:37 Now | Refresh icon.
 - Date joined:** Date: 2013-02-03 Today | Calendar icon; Time: 13:19:37 Now | Refresh icon.

At the bottom, there are buttons for 'Delete', 'Save and add another', 'Save and continue editing', and 'Save'.

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:

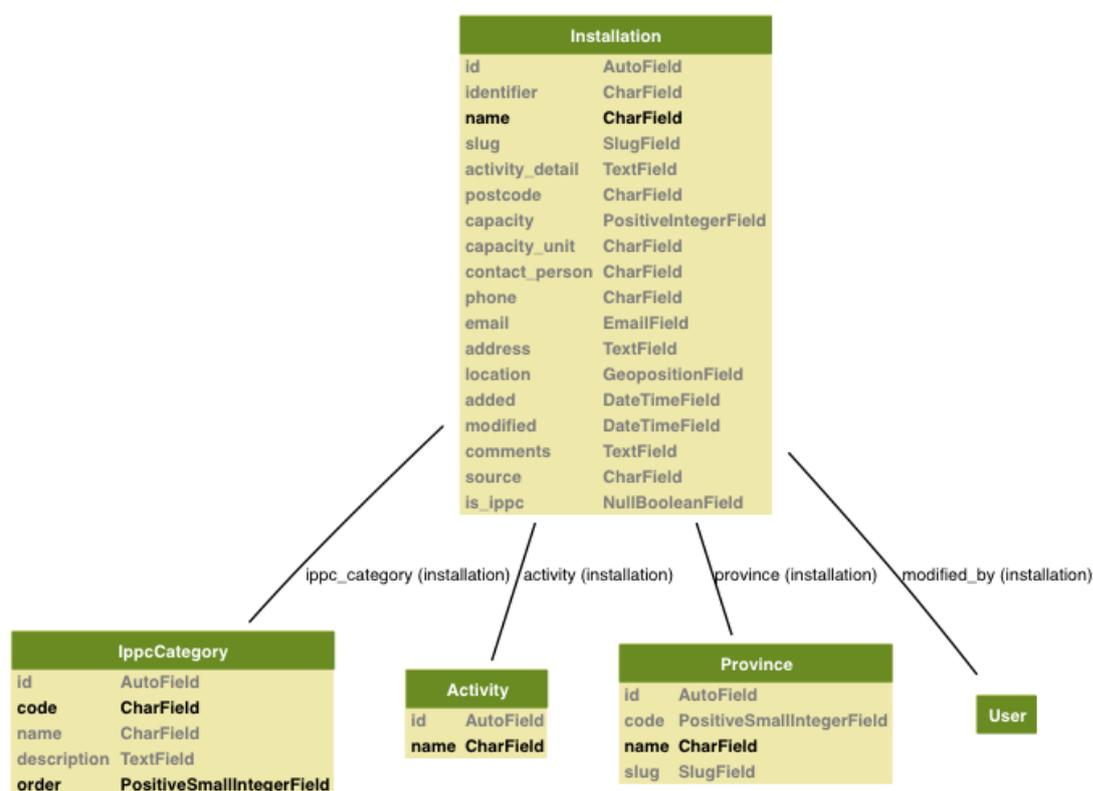


Figure 16 Installation model and its relations

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:

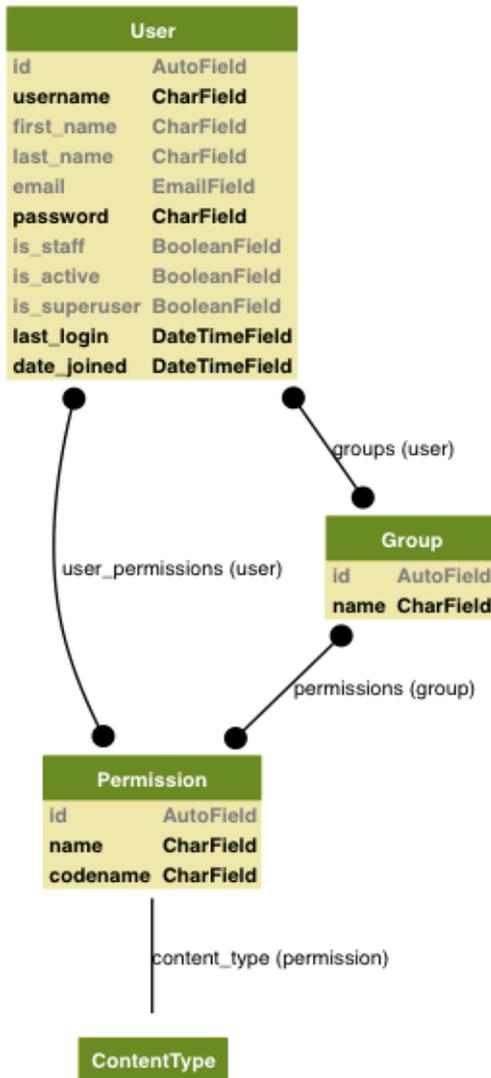


Figure 17 User and authentication models

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:
 - o cd C:\ippc\
 - o virtualenv env
 - o .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:

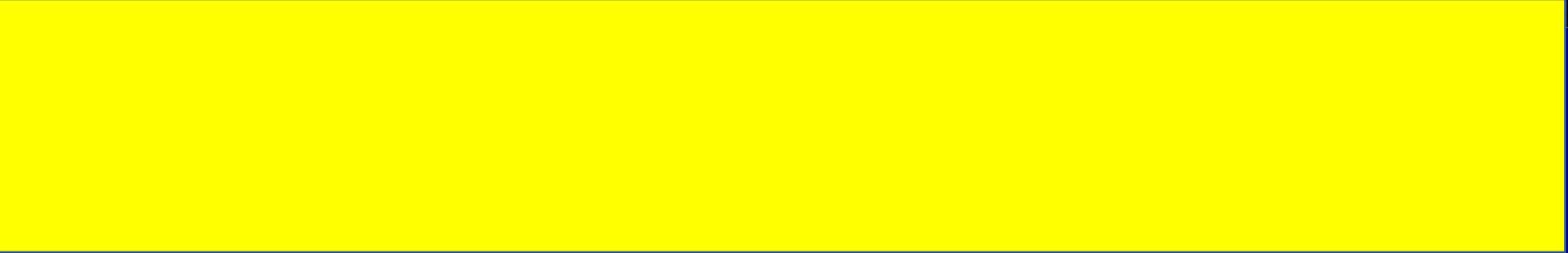
- pip install –r requirements.txt

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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