# **Appendix-6: User’s Guide**

**User’s Guide**

**How to Setup the Server**

To start using this web application a minimum of one Computer is needed as a server for both parts of the system, i.e. as a web-server and also the database server. If the network’s traffic is not high or if it’s kept to a small range of users one computer is sufficient. If the web app is to be deployed on a bigger scale then it needs its own servers to run the web application and the database. In addition to the need for server computer, a network connection between the server and other users is needed.

ERA has a well-furnished local area network (LAN) infrastructure and many server computers. To use the **“ERA Contract Management System”** in the compound of the organization no additional infrastructure is needed. There is no internet needed for the system to be full-fledged functional.

There are some requirements for installing and deploying this web application on a computer:

* First the computer needs to have a fresh installation of **‘Python3’**, which is added to the computer’s path with a special feature called ‘Pythons Package Manager’ (PIP) that helps to install additional dependencies. To install it on Windows, use executable file (downloaded the from the official python website. Now create a CMD file in the web app file folder to facilitate the following steps.
* After that, using the command prompt (on Windows) install Python’s Virtual Environment, by typing ***“pip install virtualenvwrapper-win”.*** Thefollowing command creates a virtual environment with custom name, ***“mkvirtualenv myproject”***. This virtual environment is only needed if there is a need to deploy multiple python applications on that computer, if not then this step can be skipped. While this step is mandatory this is considered a best practice and will save file in the future when it is ready to deploy the project.
* If the virtual environment is installed, then activate it by the command ***“workon myproject”*** to continue to the next step, if not then continue to install the requirements for the software by writing the above command. Now the package manager is working on the virtual environment that is created earlier. This web application uses certain dependencies, there is a file that comes along with the web app folder and named ‘requirements.txt’ a text file with all the dependencies and their used versions in this project one can install all of them using the ‘pip’ command in the command line. The command is ***“pip install -r requirements.txt”*** to install all the dependencies recursively inside the text file.
* Following the installation of all the dependencies, start running the server by “***payton manage.py runserver”***. If the server works and says that it is running on the localhost then everything is correct and it works.
* Test whether the server is launched on a web-browser, use the address ‘127.0.0.1:8000’, and if it shows a web page then the work is almost done.

Now comes the step where the working web applications must be served to other users via the network. Since this application works on a local network all the users must be on the same network. To start serving the website first there are some configurations to be made.

* The first is head to the **settings.py** file and edit with a text editor. Find a line that says **DEBUG = True** and change the value to **False.** (Because if an error occurs when users are using the site the internal data and settings can be compromised and unwanted information about the system can be visible to the user.)
* Another change that needs to be made is on the line where is says **ALLOWED\_HOSTS = []** that field is now empty but it must be filled with the server’s **IP Address on the network**, which can be found by running a search on the command line for IPV4, and follow that IP Address with the port number you want the application to run. *For example, if the IP Address on the internal network is ‘198.168.1.2’, then write ALLOWED\_HOSTS = [ ’192.168.1.2’,]. Now this address is the web address that other users on the network can use to access the web site.*

Finally write the following two commands to collect the static files:

* ***“payton manage.py collectstatic”***
* ***“payton manage.py runserver 0.0.0.0:8000”***

**How to Use the System**

After setting the server, connecting user computers to the server and launching the system users can start using the system. The first precondition, as explained above, the user must connect to the server with a network. Second, the user should have a web browser despite of the brand. Third, the user should be registered and must have User ID and Password to be granted an access.

**Hierarchical Access**

The system comprehends the Contract administration unit to be with the following structure:

* **Director:** Has an administrative hierarchy in the system. Can see and access all features included in the system without any limit. The account is created by default with Username **“dr”** and password **“drdrdrdrdr”.** The account can create usernames and projects.
* **Office Assistant:** The office assistant is assumed to help the director in doing his day to day acclivities in the system like creating accounts. This account is to be created by the Director and granted full access of the system on the behalf of the director.
* **Team Leader:** Is considered the facilitator between the engineers and the director. This account is granted limited access to only for matters related to employees and projects under his team.
* **Lead Engineer and Engineers:** the system considers the two to be equal in access and hierarchical in position. The lead engineer might send orders to the engineers to complete certain task via the system. The Engineers then respond the action for further comments.