

SOLICITEL

Backend Installation Guide

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1. INTRODUCTION

1.1 Purpose

This document provides an installation guide for the Solicitel backend application developed through Django. To provide a comprehensive guide for the deployment in production of this web application.

1.2 Scope

This document provides a step-by-step guide to install and deploy the application. It outlines the necessary libraries and packages, with links to download the required tools. Additionally, supplementary tutorials are included for the installation and configuration of these tools. Throughout the guide, pictures of the expected results, console outputs, and example configuration files are provided to assist users.

2. INSTALLATION GUIDE

2.1 Pre-requisites

Operating system

Python is a programming language compatible with the most widely used operating systems such as Windows, Mac OS and GNU Linux based systems. The python versions and their compatibilities can be found at the following link:

<https://www.python.org/doc/versions/>

Software Components

Database: MySQL

The steps to install MySQL on the different operating systems can be found in the following guide:

<https://dev.mysql.com/doc/refman/8.4/en/macos-installation.html>

The use of Workbench is not necessary for the deployment of the project, but it is a good option for the visualization of the database. You can consult the following link for installation:

<https://dev.mysql.com/downloads/workbench/>

Frameworks

All frameworks listed below are used in their LTS (Long Term Support) version.

- Framework de testing
- Framework de reports

2.2 Pre-Installations Tasks

Source Code

Check all the versions of the previously downloaded apps, tools, and frameworks. The wrong version can cause unexpected issues. If all the versions are the correct ones (newest ones), please continue the installation.

Download the app source file from the Github Repository:

<https://github.com/itconsultore/espoltel-compras>

Code Editing Tool

Use a code Editing tool of your choice to open the PuppiesApp folder. For this program the recommended Editing tool is Visual Studio Code:

<https://code.visualstudio.com/download>

2.3 Installation Procedure

Database

For this guide the database will be created through the console.

Open a terminal and enter the following commands to create the database:

- Initialize MySQL service: `sudo service mysql start` (Linux or Mac Os) - `net start MySQL` (Windows)
- To access the SQL console: `mysql -u root -p`
- To create the database: `CREATE DATABASE espolteldb;`

After this you can close the console.

This database will be used only for the development environment. To configure the production database, you will need to know its credentials and replace the data in the project's settings.py file.

```

96 # Database
97 # https://docs.djangoproject.com/en/5.0/ref/settings/#databases
98
99 DATABASES = {
100     'default': {
101         'ENGINE': 'django.db.backends.mysql',
102         'NAME': "espoltel",
103         'USER': "root",
104         'PASSWORD': "root",
105         'HOST': "localhost",
106         'PORT': "3306"
107     },
108 }

```

Figure 1 Database configuration data

Django Project

Once inside the root folder of the project you must install all the packages following these steps:

In case you are on a Windows system, replace `python3` by `python`

1. Virtual environment creation

```
python3 -m venv virtualenv
```

2. Activate the virtual environment

- Linux and Mac OS

```
source espoltel_backend/bin/activate
```

- Windows

```
virtualenv\Scripts\activate
```

3. Install Django and the required packages

```
pip install Django
```

```
pip install -r requirements.txt
```

- In case of absence of the "requirements.txt" file you must first generate it with the command:

```
pip freeze > requirements.txt
```

4. Migrations

python3 manage.py makemigrations

python3 manage.py migrate

5. Super admin creation

python3 manage.py createsuperuser

2.4 Project Execution

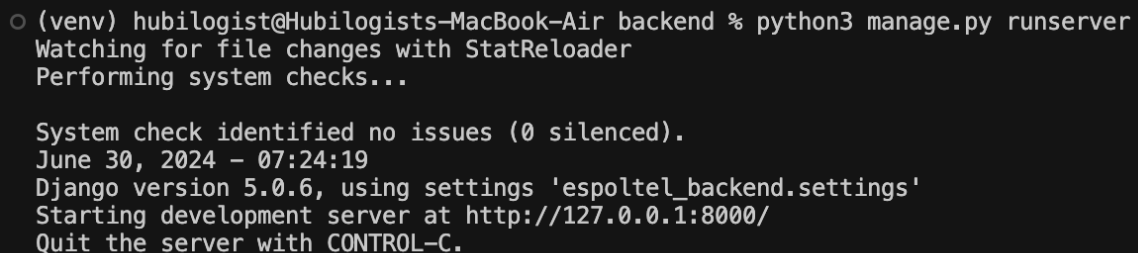
Once you are in the virtual environment previously created, you should execute the following command:

3. *python3 manage.py runserver*

In case one of the packages has not been installed correctly, you will have to install it manually with the command:

4. *pip install <package name>*

When the project is fully executed, you will be able to enter the link indicated in the console and use the different paths of the project.



```
(venv) hubilogist@Hubilogists-MacBook-Air backend % python3 manage.py runserver
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).
June 30, 2024 - 07:24:19
Django version 5.0.6, using settings 'espoltel_backend.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CONTROL-C.
```

Figure 2 Console with the project in execution