

Configuration Manual

MSc Internship
MSc in Cybersecurity

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MSc Project Submission Sheet
School of Computing



Student Name: Junaid Ijaiya

Student ID: X20101350.....

Programme:.....MSc Cybersecurity..... **Year:**2021.....

Module:Academic Internship.....

Lecturer:Mr. Vikas Sahni.....

Submission

Due Date:06 Sep 2021.....

Project Title:Augmenting The Compliance of ISO 27001 Operations Security by Automating the Manual Change Request Process in a Fin-Tech Environment.....

Word

Count:770..... **Page Count:**10.....

I hereby certify that the information contained in this (my submission) is information pertaining to research I conducted for this project. All information other than my own contribution will be fully referenced and listed in the relevant bibliography section at the rear of the project.

ALL internet material must be referenced in the bibliography section. Students are required to use the Referencing Standard specified in the report template. To use other author's written or electronic work is illegal (plagiarism) and may result in disciplinary action.

Signature:Junaid Ijaiya.....

Date:06th Sep 2021.....

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Configuration Manual

Junaid Ijaiya
Student ID: X20101350

1 Overview

The developed tool is a process management system based on BPMN principles. The industry standard for business process modeling is BPMN (Business Process Modeling and Notations). BPMN is a standard notation that all business stakeholders may comprehend [1]. This utility is web-based and was created with the Django framework (a Python-based framework).

2 Software and Hardware Requirements

As is for most standard web applications, a browser (preferably chrome), a standard operating system (preferably Windows or Mac), and dependent software are required to setup this tool.

2.1 Microsoft Windows

2.1.1 OS Specifications

- Windows Operating System 7
- Windows Operating System 8
- Windows Operating System 10

2.1.2 Dependent software

- Python3
- Virtualenv

2.2 MacOS

2.2.1 OS Specifications

- macOS 10 – macOS 11 (Big Sur)
- Memory: 8 GB 2133 MHz LPDDR3
- RAM: 256MB RAM
- Processor 2.3Ghz Quad-Core Intel Core i5

2.2.2 Dependent Software

- Python3
- Virtualenv

3 Installation

The following steps should be followed to successfully setup this tool on a local machine:

3.1.1 3.1 Setup directory structure

For Django projects, the most comfortable directory (folder) structure is encasing your virtual environment and your project in a parent folder as shown below.

- WMS
 - WMS
 - ◆ --project content
 - Venv
 - ◆ --virtual env contents

The project contents are in the compressed file below:



WMS.zip

3.1.2 Setup base requirement

The project's base requirement are dependencies needed to successfully run the tool.

3.1.2.1 Setup Virtual Environment

3.1.2.1.1 Installing Virtual environment

- Open terminal
- Navigate (cd) to the base project directory (WMS)
- If virtual environment is not currently installed, run the command below:

```
pip install virtualenv
```

Virtual environment usage

- Run command to setup virtual environment:

```
virtualenv venv
```

These scripts establish a venv/ directory in your project that contains all of your dependencies.

However, you must first activate it (in each terminal session where you are working on your project).

- ii. Activate the virtual environment:

`source venv/bin/activate`

3.1.2.2 Installing requirements

Run command to install project requirements from the 'requirements.txt' file:

`Pip install -r requirements.txt`

3.1.3 Launching and using the tool.

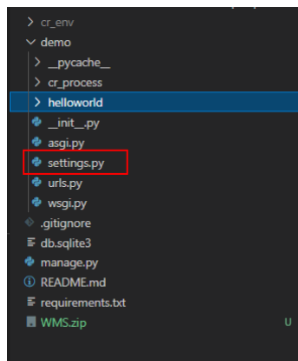
3.1.3.1 Project setups

3.1.3.1.1 Database migrations

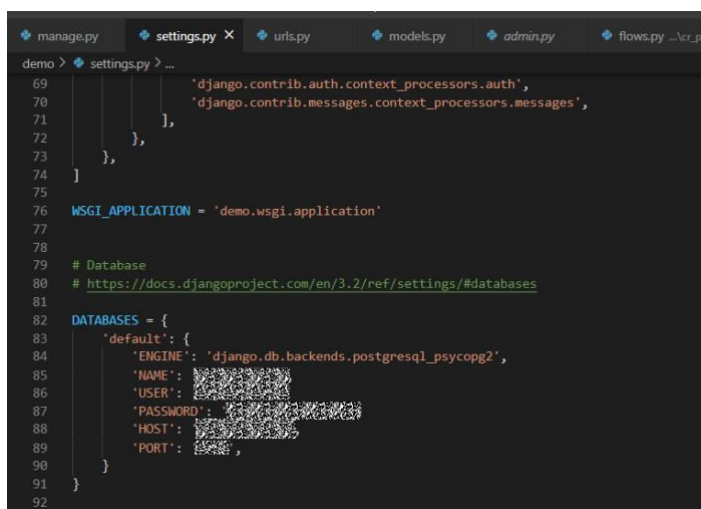
This step can be skipped if the database is already linked. If it's not, new database configurations have to be setup and models migrated.

- 1. Setup steps:

- i. Navigate to settings.py



- ii. Configure database connection properties



- 2. Migrating models to database

- i. Prepare migrations file:

`Python manage.py makemigrations`

- ii. Run migrations to database:

Python manage.py migrate

3.1.3.1.2 Creating superuser

In Django, a superuser is important to have overall access to the system. Run the command below to create super user:

Python manage.py createsuperuser

3.1.3.2 Launching the project

Use the command below to start the project:

Python manage.py runserver

```
(cr_env) PS [REDACTED] python manage.py runserver
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).
September 05, 2021 - 23:12:03
Django version 3.2.6, using settings 'demo.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
```

Good to go...

3.2 References

- [1] "Viewflow introduction", Viewflow, [Online]. Available: <http://docs.viewflow.io/index.html>. [Accessed 4 September, 2021]

JUNE INTERNSHIP ACTIVITY REPORT

19. Appendix H – Monthly Internship Activity Report

The Internship Activity Report is a 1-page monthly summary of the activities performed by you and what you have learned during that month. The Internship Activity Report must be signed off by your Company and included in the configuration manual as part of the portfolio submission.

Student Name: Junaid Ijaia Student number: X20101350
Company: XCLAIM LABS Month Commencing: 7th June 2021

I planned and prepared internal audit schedule alongside with my manager. Also helped in reviewing clients people, processes and technologies. Provided feedback based on the ISO 27001 Standards.

In discussion with the operators team of a client on how to help with the compliance of best practices for the change management process.

Employer comments

Junaid assisted with internal audit planning

Student Signature: _____



Date: _____

30/06/21

Industry Supervisor Signature: _____



Date: _____

June 30, 2021

JULY INTERNSHIP ACTIVITY REPORT

19. Appendix H – Monthly Internship Activity Report

The Internship Activity Report is a 1-page monthly summary of the activities performed by you and what you have learned during that month. The Internship Activity Report must be signed off by your Company and included in the configuration manual as part of the portfolio submission.



Student Name: Junaid Ijaiya Student number: X20101350
Company: XCLAIM LABS Month Commencing: 7th June 2021

Helped with vulnerability assessment of client alongside performing security gap analysis and giving recommendations on how to fix known vulnerabilities.

Started research on how to augment the compliance of operations security according to the ISO 129001 Annex: 12 during a change management process.

Employer comments

Impressive job by Junaid. His deliverables were excellent

Student Signature:  Date: 30/07/21
Industry Supervisor Signature:  Date: July 30, 2021

AUGUST INTERNSHIP ACTIVITY REPORT

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Student Name: Junaid Ijaz Student number: X20101350
Company: XCLAIM LABS Month Commencing: 7th June 2021


During the last month of my internship program, I started with the planning on the implementation of the automated Change Management Process, knowing the type of technologies to use and the dependent. Risk Analysis on the design was done and the engineering and execution started. Evaluation was done to see if it met the desired outcome, and the automated Change request passed the client's evaluation and was accepted.

Employer comments

Junaid helped with automating the client's change management process

Student Signature: [Signature] Date: 23/08/21
Industry Supervisor Signature: [Signature] Date: Aug 25, 2021

Junaid helped with automating the client's change management process

Student Signature:  Date: 23/08/21
Industry Supervisor Signature:  Date: Aug 25, 2021