

Configuration Manual

MSc Research Project
Masters in Cyber Security

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School of Computing
National College of Ireland

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National College of Ireland
MSc Project Submission Sheet
School of Computing



Student Name: Pankaj Ramcharitra Yadav
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Student ID: X23205458
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Programme: Masters in cyber security
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Year: 2024
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Module: Practicum
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Lecturer: Joel Aleburu
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Submission Due Date: 12/12/2024
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Project Title: Strengthening IOHT security by multi factor authentication solutions and with future directions
.....
559

Word Count: **Page Count:** 7.....

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Configuration Manual

Pankaj Ramcharitra Yadav
X23205458

1 Introduction

This manual provides detailed information about how to configure and deploy a secure platform for Internet of health care things. This platform uses multifactor authentication with Amazon web service to enhance its security and protect from cyber-attacks.

2 Prerequisites

2.1 Hardware requirements

A laptop with internet access and a server for hosting the web application on amazon web service.


2.2 Software Requirements

1. Account on Amazon web service.
2. PHP, MySQL, HTML and CSS for developing a website.
3. Web browser such as Firefox or chrome.
4. Snypk for vulnerability testing.
5. XAMP

3 Web application development

1. For frontend, I have use PHP, HTML and CSS to develop a website and then given a doctors and patients a role specific dashboard.
2. For backend, I have use PHP to handle authentication and also to secure data transmission.

← ↻ ⚠ Not secure | 13.60.85.120/index.html ☆ ⚙ ⭐ ⋮



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We are not just a Medical Center, We are your Health Companion !

We Have Medicare Plan Options for You!

Phasellus pretium orci sit amet mi ullamcorper egestas. Sed non mattis metus. Integer vel lorem tincidunt, pharetra eros nec, posuere odio. Nullam eget bibendum sem, venenatis lacinia justo. Duis aliquet lobortis neque, eget volutpat nulla iaculis a.

In hac habitasse platea dictumst. Praesent condimentum justo justo, at ultricies diam accumsan vitae. Donec ac elementum diam. Ut quam orci, posuere quis lacus sed, vehicula rhoncus massa. Nunc volutpat nibh nulla, tincidunt egestas tellus faucibus nec.

- Nulla venenatis auctor quam, ac porta lectus dictum in
- Aliquam sodales nisi sit amet lorem
- Suspendisse vulputate tellus in justo convallis imperdiet
- Morbi id lorem consequat, sodales mi non
- Nulla venenatis auctor quam, ac porta lectus dictum in

Make an Appointment

First Name
 Last Name

Email Id
 Mobile No

Hosting and Integration

1. I have login to AWS to access AWS management Console.
2. Then navigate to EC2 dashboard to launch a new instance by using Amazon Linux 2.
3. While configuring assign a key pair of SSH and allocate a storage of 20GB .
4. I have allows inbound traffic on port number 22 for SSH, 80 for HTTP and 443 HTTPS and restrict other ports for security.

i-06d8b78b6dd49b6dd (hospital management)					
Name	Security group rule ID	Port range	Protocol	Source	Security group
-	sgr-017ee867a0c3906a8	22	TCP	0.0.0.0/0	launch-wizard
-	sgr-0a1b99c8294afc7ed	443	TCP	0.0.0.0/0	launch-wizard
-	sgr-05ad89acacf54fdc7	80	TCP	0.0.0.0/0	launch-wizard
▼ Outbound rules					

5. Then navigate to the IAM dashboard to activate all multifactor authentication for all the users and after this open KMS dashboard to create a customer managed key for enhancing security.
6. Transfer website files to the EC2 and set up a web server to host the application.

```
~#  
~\#####  
~~\#####\  
~~\#####|  
~~\##/  
~~V~!'->  
  
~.  
~_._  
~/m/'
```

Amazon Linux 2023

<https://aws.amazon.com/linux/amazon-linux-2023>

```

Last login: Tue Dec 10 15:41:03 2024 from 13.48.4.202
[ec2-user@ip-172-31-41-37 ~]$ sudo su
[root@ip-172-31-41-37 ec2-user]# mkdir morri2
[root@ip-172-31-41-37 ec2-user]# cd morri2
[root@ip-172-31-41-37 morri2]# wget https://github.com/kktrav/morri/archive/refs/heads/main.zip
--2024-12-10 16:35:09-- https://github.com/kktrav/morri/archive/refs/heads/main.zip
Resolving github.com (github.com)... 4.225.11.194
Connecting to github.com (github.com)|4.225.11.194|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://codeload.github.com/kktrav/morri/zip/refs/heads/main [following]
--2024-12-10 16:35:09-- https://codeload.github.com/kktrav/morri/zip/refs/heads/main
Resolving codeload.github.com (codeload.github.com)... 4.225.11.198
Connecting to codeload.github.com (codeload.github.com)|4.225.11.198|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [application/zip]
Saving to: 'main.zip'

```

```
main.zip [ <=>
```

7. Use the public IP address to get access on the website.

⚠ Not secure | 13.60.85.120/index.htm

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We Care About Your Health

We are not just a Medical Center, We are your Health Companion !

We Have Medicare Plan Options for You!

Phasellus pretium orci sit amet mi ullamcorper egestas. Sed non mattis metus. Integer vel lorem tincidunt, pharetra eros nec, posuere odio. Nullam eget bibendum sem, venenatis lacinia justo. Duis aliquet lobortis neque, eget volutpat nulla iaculis a.

In hac habitasse platea dictumst. Praesent condimentum justo justo, at ulcicies diam accumsan vitae. Donec ac elementum diam. Ut quam orci, posuere quis lacus sed, vehicula rhoncus massa. Nunc volutpat nibh nulla, tincidunt egestas tellus faucibus nec.

- Nulla venenatis auctor quam, ac porta lectus dictum in
- Aliquam sodales nisi sit amet lorem
- Suspendisse vulputate tellus in justo convallis imperdiet
- Morbi id lorem consequat, sodales mi non
- Nulla venenatis auctor quam, ac porta lectus dictum in

