IC INTERNET GATEWAY

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IC INTERNET GATEWAY PORTAL

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Introduction

IC INTERNET GATEWAY PORTAL is an automated way to get the information of network devices in one place. This is a web-based portal, which will help all individuals to get all related information about devices managed by Gateway Team.

Purpose

The purpose of this document is providing a clear idea about the build of this webpage, hosting of this portal and other technical descriptions that are required to understand the working flow, along with frontend and backend technologies.

Scope

The detailed workflow of the portal and in-depth understanding about the logic running behind this build. There are different languages used in frontend and backend. Also, some basic concepts for software development.

What we can Achieve through this portal

This portal was created to provide all information required to know as a part of the Gateway Team. This portal has different tabs, and all are under deployment. We have started working on the “inventory” tab. This inventory tab is powerful to get all the detailed inventory. It has options to check it from the manual inventory database and it can login to the device directly and grab the live information for the device with valid credentials.

Front End and Back End

**Front End Development:** The part of a website that the user interacts with directly is termed the front end. It is also referred to as the ‘client side’ of the application. It includes everything that users experience directly: text colours and styles, images, graphs and tables, buttons, colours, and navigation menu. HTML, CSS, and JavaScript are the languages used for Front End development.

**Backend Development:**Backend is the server-side of the website. It stores and arranges data and makes sure everything on the client-side of the website works fine. It is the part of the website that you cannot see and interact with. It is the portion of software that does not come in direct contact with the users. The parts and characteristics developed by backend designers are indirectly accessed by users through a front-end application. Activities, like writing APIs, login to device, and working with system components without user interfaces or even systems of scientific programming, are also included in the backend.

Running http server

As this is a web page, then we must have a webserver running behind. So whenever user needs to login to the Gateway Portal, they will be initiating a HTTP connection to get the Access. Using a module called **FLASK** in python we are running this HTTP server. This module will allow us to define a different HTTP port to get the access.

Uploading files to GitHub

GitHub is a code hosting platform for version control and collaboration. It lets you and others work together on projects from anywhere. We have also used private GitHub from Exxon to upload all codes which is required to run this portal and whenever we need any changes to be performed in portal, used modify the code in GitHub.

**How to upload code to GitHub**

* Login to “login URL” with Exxon credential.
* Need to create a project repository
* Upload your files by clicking the Add File Button
* Also Edit option is available if required after uploading
* Click on commit to save your uploaded/edited file.

Hosting the website OpenShift

OpenShift helps you to develop, deploy, and manage container-based applications. It provides you with a self-service platform to create, modify, and deploy applications on demand, thus enabling faster development and release life cycles. OpenShift will build the application by grabbing the codes uploaded in GitHub. Also, it will install all required necessary modules to run the code successfully to this container. Every time we make some changes on codes uploaded on GitHub, we need to comeback to OpenShift and build the application to get the effect.

**How to build application in OpenShift**

Entering to Inventory Tab:

Use <https://portal.com> to get access to the poral. After entering to the “Home” you can scroll down to