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**COURSE NAME**- IFT 510: PRINCIPLES OF COMPUTER AND INFORMATION ARCHITECTURE

**ASSIGNMENT NAME**- Module 8: Lab 1 – Creating a GUI and Web Interface for a Flask App

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PART 1

A screenshot of a computer

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Part1(Browser Output)(When index.html was not defined)

A screenshot of a computer

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PART 2(after making index.html file)

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A screenshot of a computer program

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SUMMARY

**PART1(web\_interface.py):**

This Python code uses Flask to create a simple web application that tracks the availability of hardware resources in a kitchen. The hardware\_resources dictionary contains the resources (Stove, Oven, Mixer, Knife) and their availability status. The main route (/) renders an index.html page displaying these resources. The /resource/<tool> route allows users to request a specific resource; if the resource is available, it changes its status to "Occupied". The app runs on 0.0.0.0 with port 9000, enabling access from any IP address on the local network for testing.

**PART2(index.html):**

This HTML code is used to display a list of hardware resources in a kitchen, including their availability status. It is designed to work with the Flask application from the previous code. The page displays each resource (e.g., Stove, Oven) and its current status (Available or Occupied). If a resource is available, a "Request" link appears next to it, allowing the user to request the resource by redirecting to the /resource/<tool> route in the Flask app. The page dynamically updates the list using the Jinja template engine to loop through the resources dictionary passed from the Flask app.