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Debugging Assignment Report:

Issues Identified

- **Missing HTML Directory:**

1. **Description:** The `nginx/Dockerfile` included the command `COPY ./html /usr/share/nginx/html`, but no `html` directory was present in the project structure.
2. **Impact:** This caused the Docker build to fail since it was trying to copy a nonexistent directory.

- **MAC Address Retrieval Issue:**

1. **Description:** During application testing, the function to retrieve the MAC address of the host returned `00:00:00:00:00:00` for some interfaces. This address is generally invalid and unhelpful for identifying the host.
 2. **Impact:** Displaying `00:00:00:00:00:00` as the MAC address would not provide useful information to end users.
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Resolution Steps

- **Resolution for Missing HTML Directory:**

1. **Action Taken:** To resolve the missing `html` directory issue, I removed or commented out the line `COPY ./html /usr/share/nginx/html` in the `nginx/Dockerfile`. Alternatively, I could have created an empty `html` folder if the application required serving static files. This allowed the Docker image to build successfully without errors related to missing directories.

- **Resolution for MAC Address Retrieval Issue:**

1. **Action Taken:** I modified the `get_mac_address()` function in `app.py` to skip any MAC address that was equal to `00:00:00:00:00:00`. The updated function checks if the retrieved MAC address is valid (i.e., not `00:00:00:00:00:00`) before returning it. This ensured that the application would only display meaningful MAC addresses or "N/A" if none were found
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