Assignment 3

NON-FUNCTIONAL TESTING

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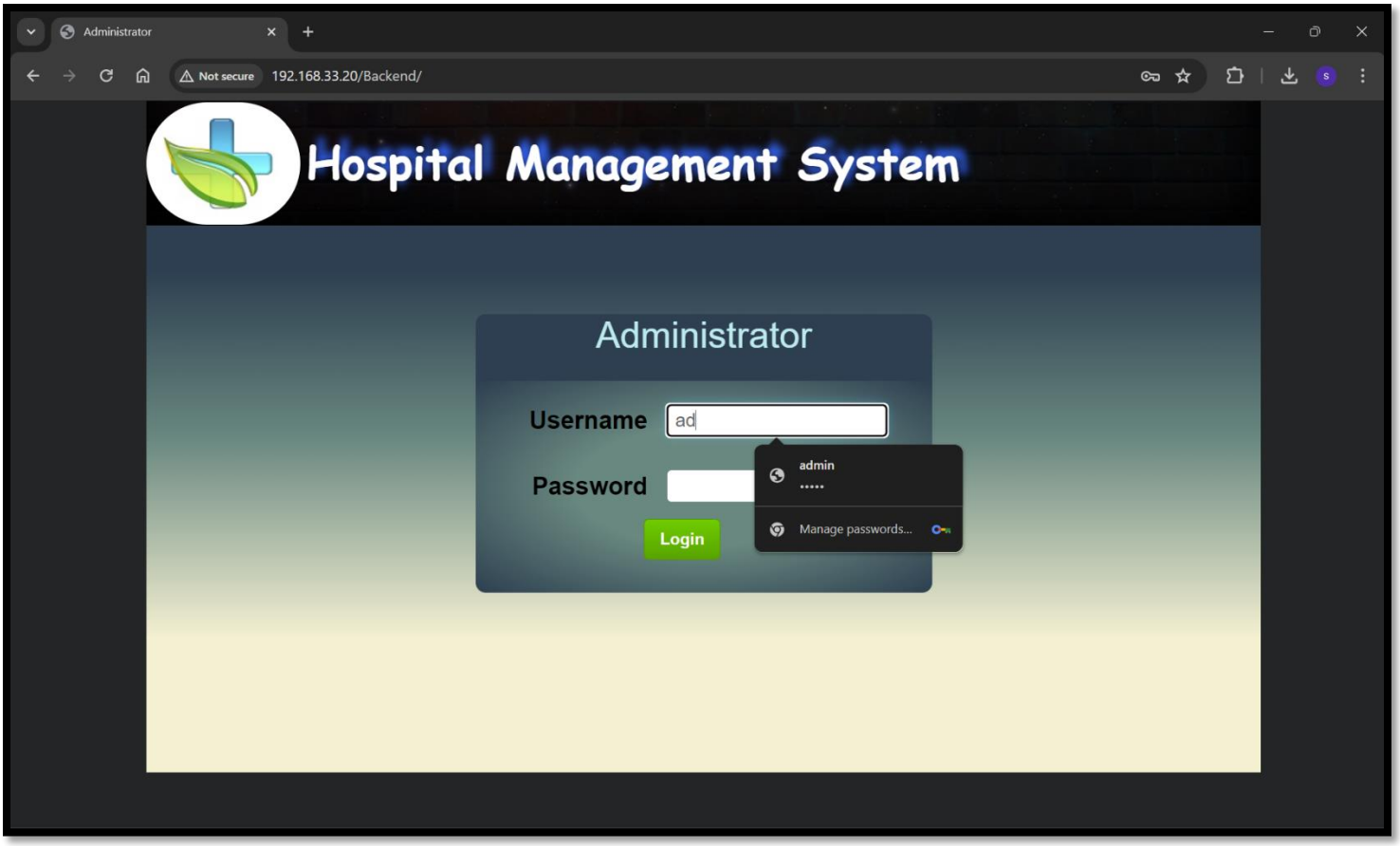
Accessibility Testing Scenarios

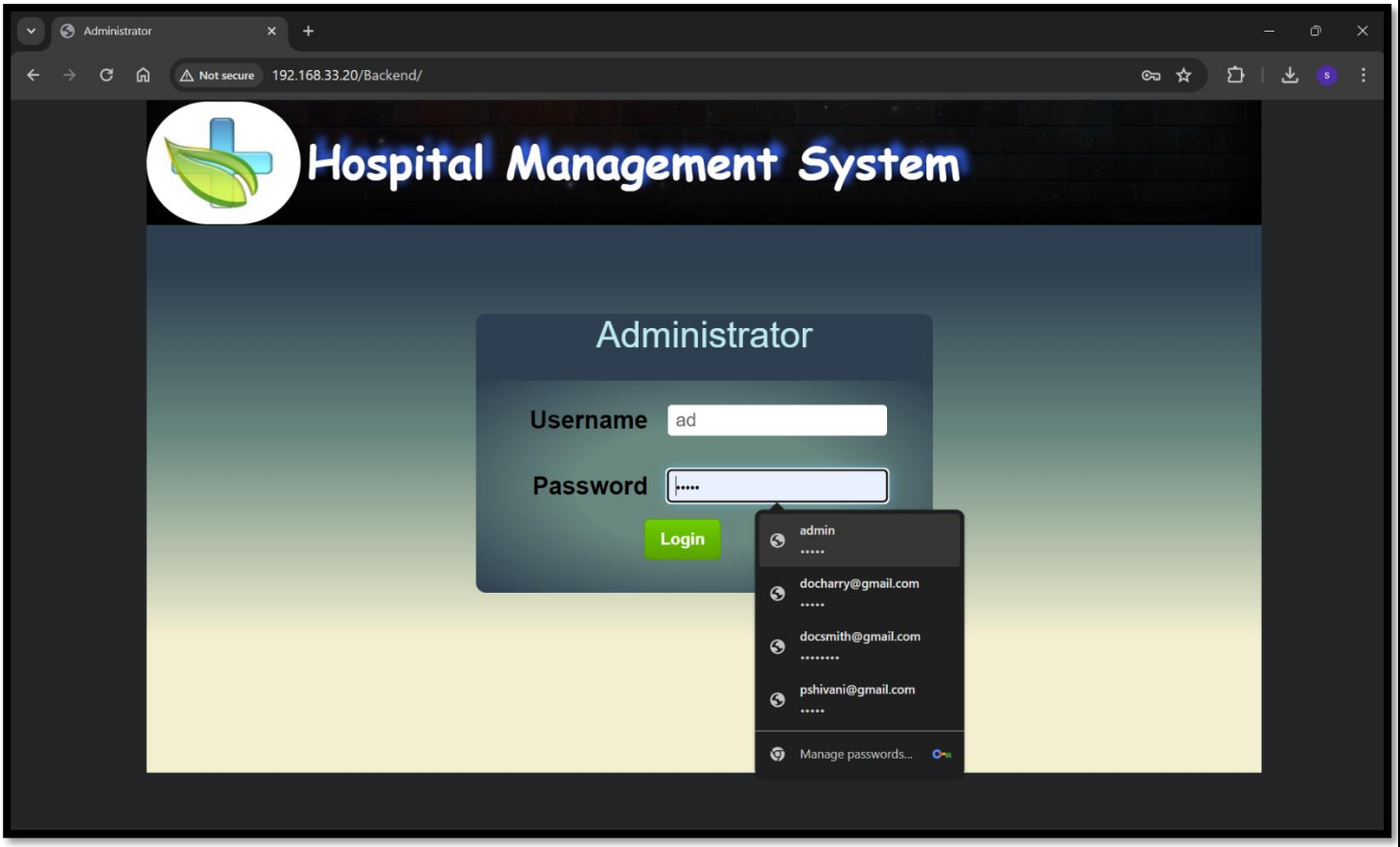
Mouse-Only Availability

- To access the backend, open a web browser and go to http://192.168.33.20/Backend
- To access the "Username" input field, use the mouse to click on it.
- To paste the text "admin" into the input field, right-click and select "Paste".
- To enter a password, click the "Password" field with the mouse.
- To paste the text "admin," right-click on the input field and choose "Paste."
- Click the "Login" button with the mouse.
- Check the login process and notifications.

Screenshot:



Status: in Working Condition



Mouse Availability Test Outcomes:

During the "Mouse Availability" test for the login page, we found the following results in terms of ease of use for both mouse and keyboard interactions:

Mouse Interaction:

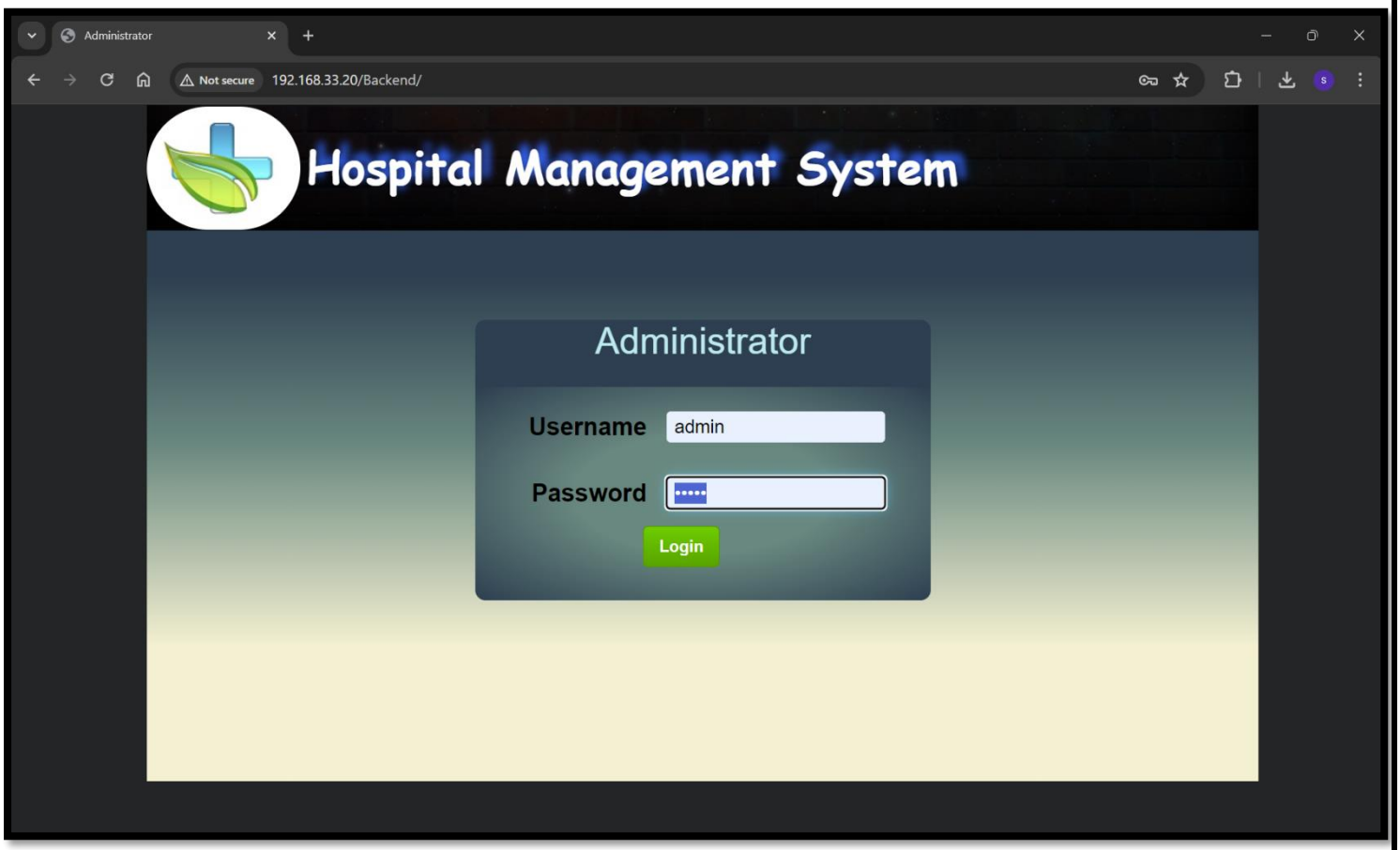
- Using the mouse to click in the "**Username**" and "**Password**" input fields was simple and intuitive.
- Copying and pasting text into the input fields (simulating keyboard interaction) interaction was possible, but it was not as common as typing by manually.
- Clicking on the "Login" button using the mouse was easy and initiated the login process without any issues.
- overall, mouse interaction provided a graphically guided method, allowing users to effectively interact with the login page.
- Tap or click the "Login" button to submit the login form using touch-based interaction.

- Verify for validation messages or error notifications.
- Verify the login was successful by looking for a redirected page or the relevant success message.

Keyboard-Only Availability:

- To view the admin login page, open a web browser and enter the following URL: http://192.168.33.20/Backend/ .
- To browse through the page elements, such as buttons, input forms, and links, use the "Tab" key.
- Ensure that the "Tab" key is used to highlight each page element in sequential order.
- To enter the "Username" input field, use the keyboard.
- Use the keyboard to input an authorized username.
- Tab to access the "Password" input field.
- Enter a valid password using the keyboard.
- To access the "Login" button, use the "Tab" key.
- Click the "Enter" key to submit the form.
- Verify that any error notifications or validation messages are displayed accurately and can be viewed.
- Check whether the login was successful by looking for any redirected pages or appropriate success messages.

Screenshot:



Status: in Working Condition

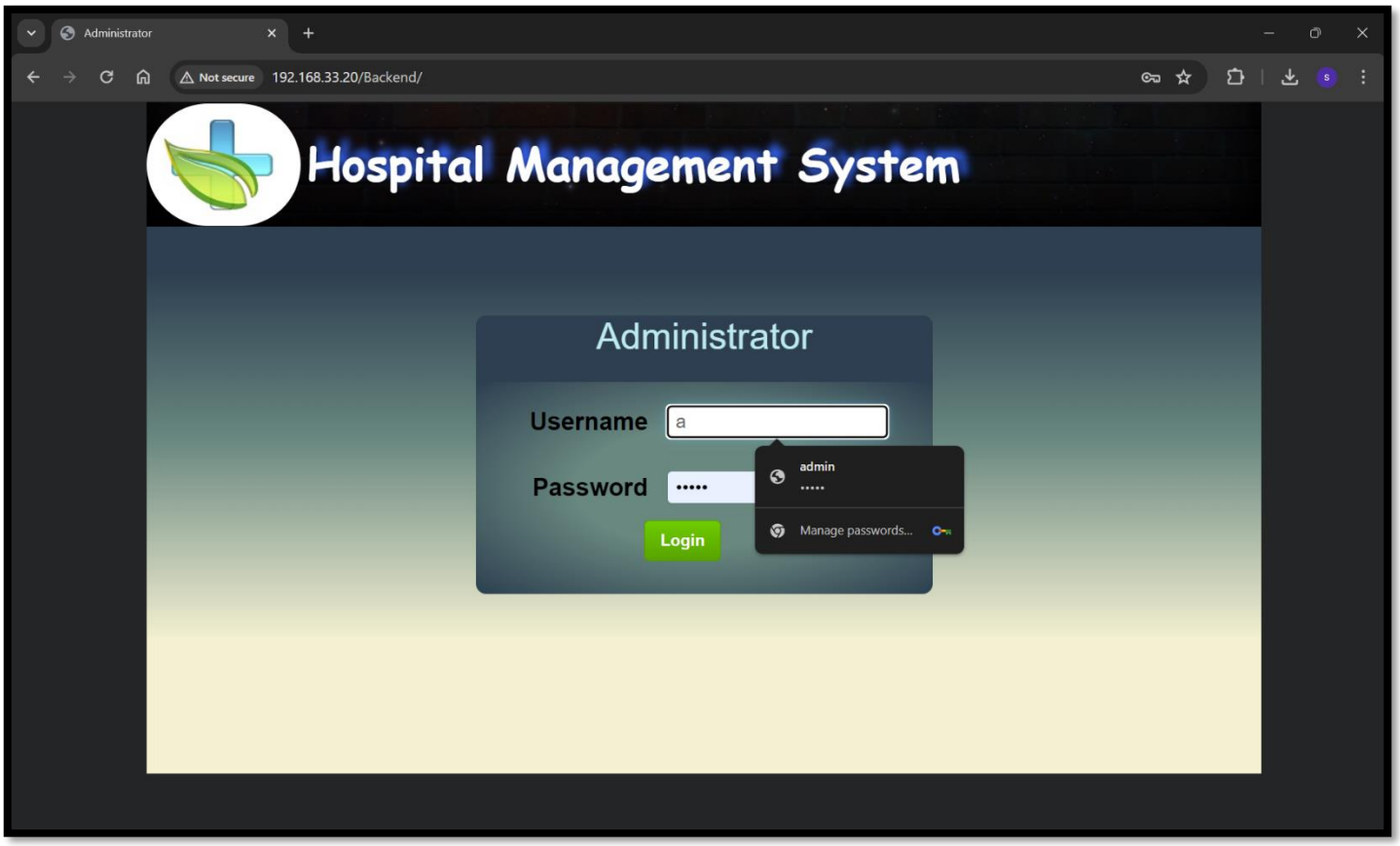
Keyboard Availability Test Outcomes:

- We noticed the following results about the accessibility of the mouse and keyboard interactions during the "Keyboard Accessibility" test for the login page:
- Typing the "Username" and "Password" fields using the keyboard is standard.
- Use the "Tab" key to navigate between the input fields and the "Enter" key to submit the form by consistent user behaviour.
- Keyboard interaction enabled fast data entry for users who are familiar with using keyboards for input.
- Experienced users may find keyboard interaction quicker, but it involves familiarity with shortcuts and tab navigation.

Mouse and Keyboard Availability

- Open a web browser and navigate to http://192.168.33.20/Backend.
- Click the "Username" input field with the mouse.
- Enter "admin" as the username using the keyboard.
- Click the "Password" input field with the mouse.
- Enter "admin" as the password using the keyboard.
- Click the "Login" button with the mouse.
- Check the login procedure and notifications.
- Document successful logins and ease of usage.
- Take screenshots of each phase, highlighting mouse and keyboard interactions.
- Accessibility via Keyboard Only
- Evaluate critical operations using the keyboard.
- Assess keyboard navigation, data input, and form submission.

Screenshot



Status: in Working Condition

Mouse and Keyboard Availability Test Outcomes:

- During the login page's "Mouse and Keyboard Accessibility" test, we observed the following results about the accessibility of mouse and keyboard interactions:
- The "Username" input field allows for mouse or keyboard navigation and input. Efficient data entry was possible with both techniques.
- Users could enter text into the "Password" field using either the mouse or keyboard, highlighting the login page's flexibility.
- Clicking the "Login" button or pressing "Enter" on the keyboard successfully initiated the login process.
- Users can communicate with the page using their chosen approach, such as the mouse for visual guidance or the keyboard for efficiency.

Ease of Use:

- The completion of crucial login tasks was made simple and intuitive by the mouse and keyboard interactions.
- Users who prefer a more visual input technique can benefit from the visually guided approach provided by mouse interaction.
- Keyboard interaction designed for those used to tab navigation and keyboard shortcuts for quick data entering.
- The login page's accessibility and user-centric design are highlighted by its compatibility with both interaction types.

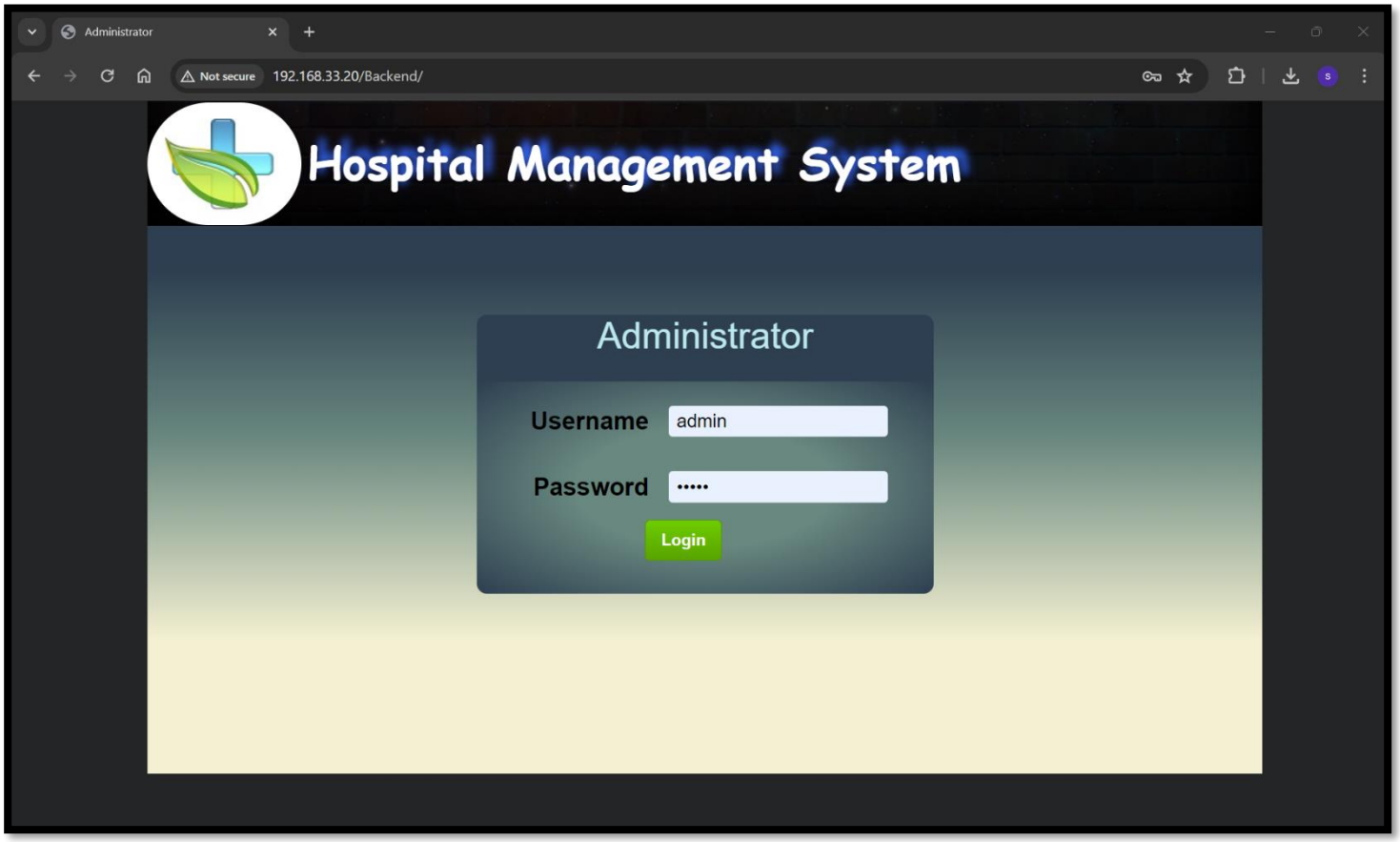
Touchscreen or Touchpad Accessibility

In the "Touchscreen or Touchpad Accessibility" test, we evaluated the login page's usability and accessibility for users interacting with the system through touchscreen devices or touchpads. This test aimed to ensure that users could efficiently complete critical login operations using touch-based input methods.

- To access the admin login page, launch a web browser and navigate to http://192.168.33.20/Backend/
- To interact with the login page's attributes, including buttons, input fields, and links, use the touchscreen or touchpad.

- Verify that each element's tap or click performs the intended action.
- Enter a valid username and password in the corresponding input fields using touch-based input.
- Make sure the characters have been entered and displayed on the screen accurately.
- To submit the login form, use touch-based interaction by tapping or clicking the "Login" button.
- Check for any validation messages or error notifications.
- Ensure successful login by checking for a redirected page or appropriate success message.

Screenshot:



Status: in Working Condition

Test Outcomes:

The following results were obtained from the "Touchscreen or Touchpad Accessibility" test:

- Using a touchscreen or touchpad to interact with each element of the login page appeared to be convenient and straightforward for users.
- Tapping or clicking on buttons and input fields delivered consistent and expected results.
- Touch-based techniques allowed users to correctly input their password and username.
- The screen displayed characters correctly, ensuring accurate data entry.
- Users can easily submit the login form by tapping or clicking the "Login" button, accelerating authentication.
- When incorrect inputs were received, validation alerts and notifications of errors were displayed in a clear and timely manner.
- Users can easily detect and solve login issues.
- The login was successful, showing that critical login procedures could be done successfully with touchscreen or touchpad interaction.

Accessibility and User Experience

The "Touchscreen or Touchpad Accessibility" test demonstrated the login page's ability to handle touch-based input. Users who use touchscreens or touchpads can interact with the login page with assurance, as the interface is user-friendly and accessible. The results validate that the login page is intended to provide a user experience that is accessible to those who interact with touch-based devices.

CMD Accessibility

Test Procedure:

- On the host system, open a terminal window or command prompt.
- To get to the URL command, use the command line:

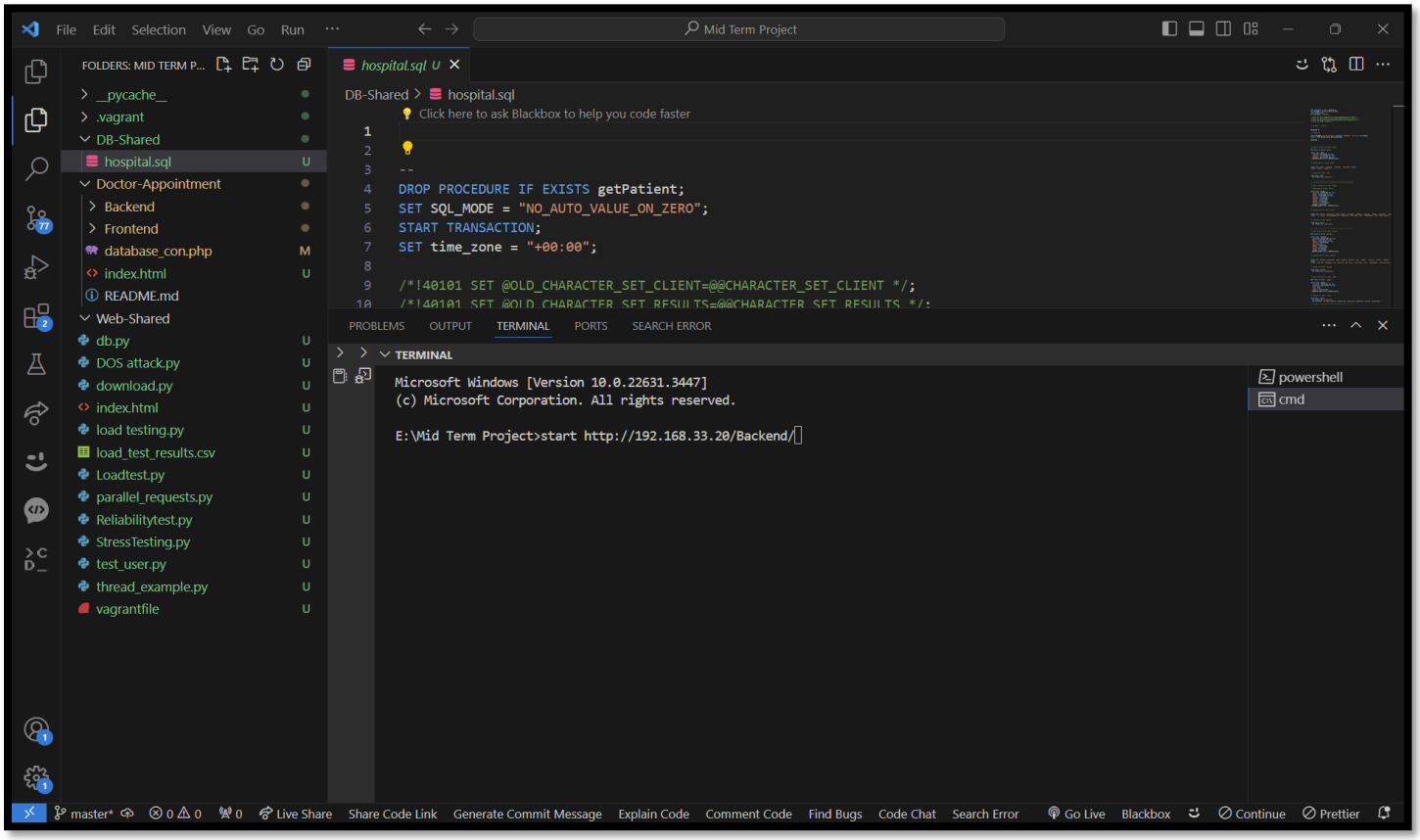
start http://192.168.33.20/Backend/

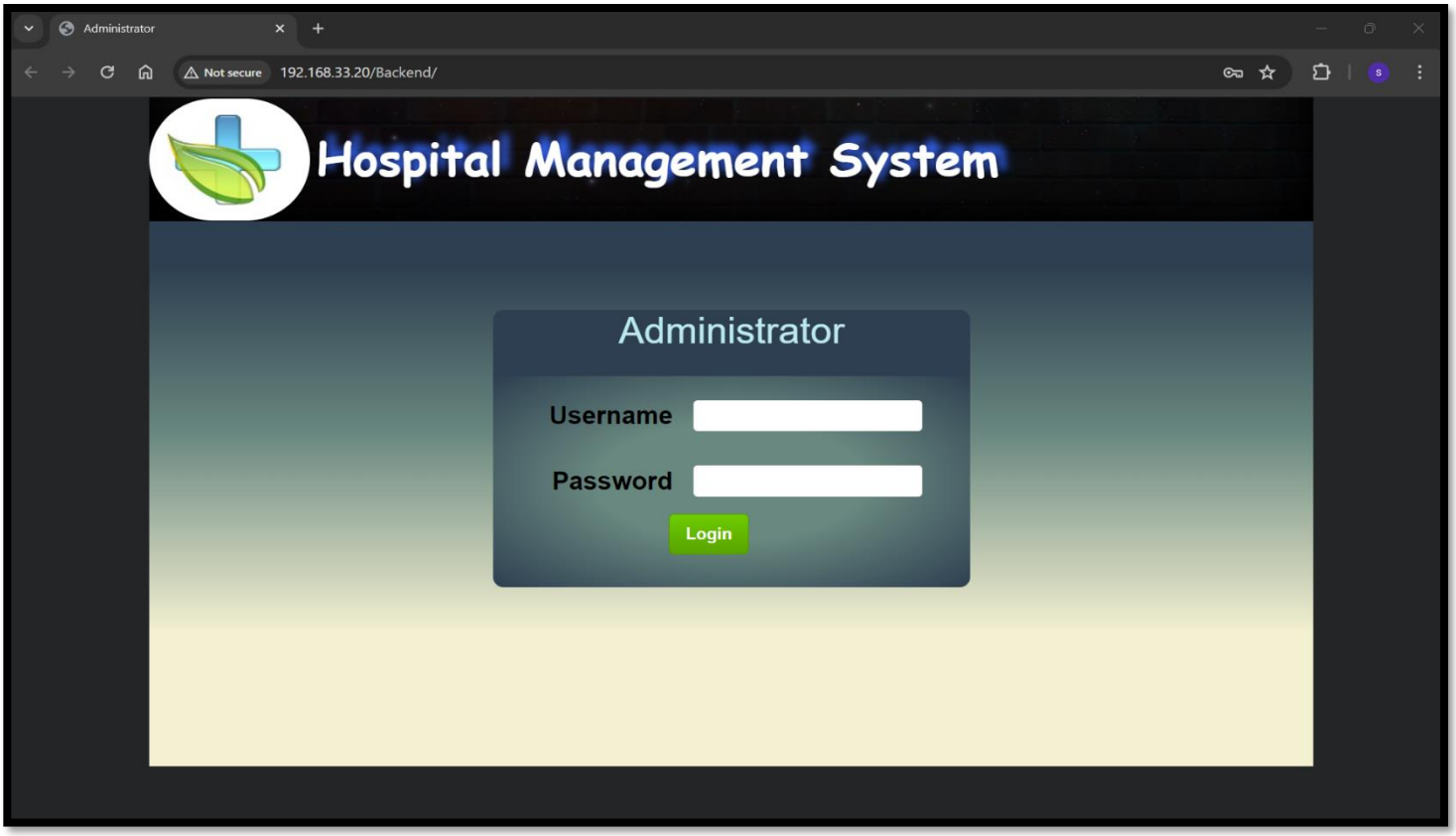
- Enter a valid username and password through command line inputs or as part of the URL parameters.
- Send an appropriate request to the login page to simulate form submission.

- Check the command line output for any response messages, validation results, or success indications.

curl -X POST -d "uname=admin&pass=admin" http://192.168.33.20/Backend/logincheck.php

Screenshot:



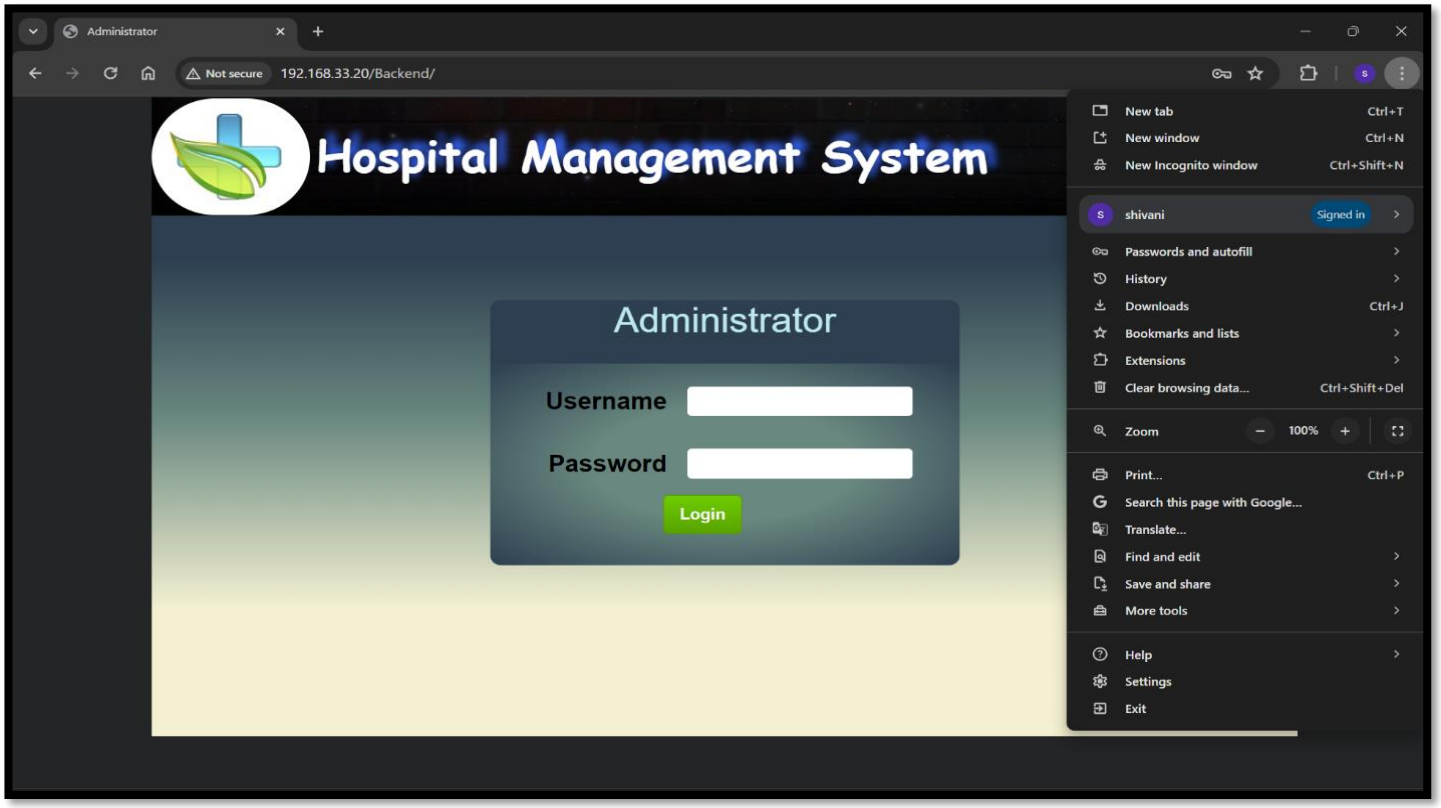


Status: in Working Condition

The "CMD Accessibility" test yielded the following outcomes:

- Users were able to use command line instructions to navigate to the login page URL, showing that the login page is accessible via text-based interaction.
- Using command line parameters or commands, users were able to successfully enter valid login credentials, showing the system's adaptability to text-based inputs.
- Executing commands to simulate form submission was successful, with the login page responding appropriately to the inputs.
- The command line was used to provide response messages, validation results, and success indicators so that users could determine the status of their login attempts.
- The "CMD Accessibility" test confirms that users who rely on or prefer command line interactions can access and interact with the login page. The login page makes sure that crucial login procedures can be finished quickly and successfully by allowing text-

based inputs and providing clear feedback through the command line interface. This indicates the login page's commitment to accessibility by allowing users to interact with the web application in their chosen ways.



Portability Testing

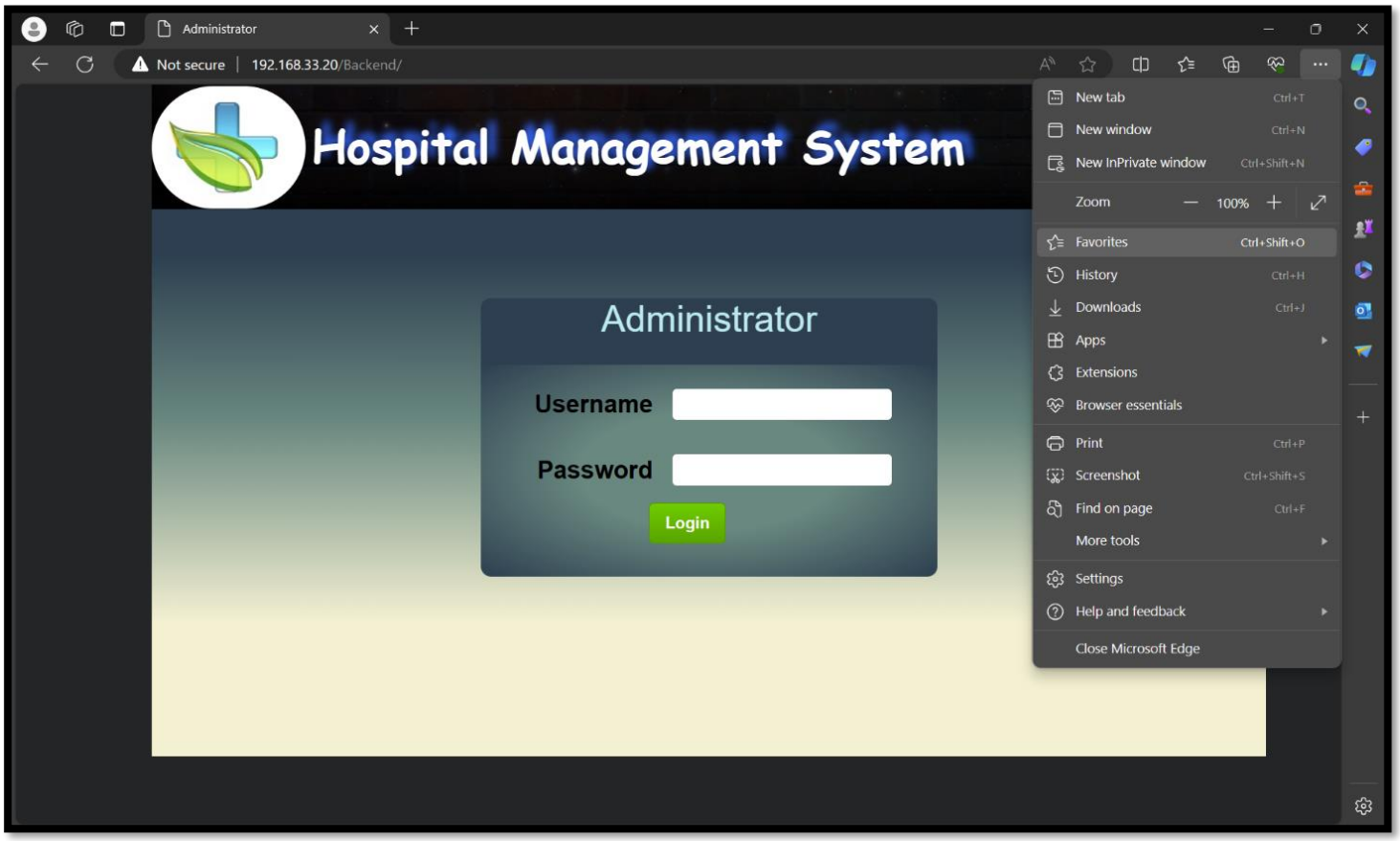
Using different web browsers (Chrome, Edge, Mozilla, Opera, Safari)

Chrome:

- Use the Google Chrome web browser to access the crucial operation.
- We performed the actions required for the crucial operation login.
- Ensure all elements render appropriately and the procedure works as expected.
- We observed any variations from other browsers in terms of design, behaviour, or style.

Edge:

- We follow the same procedure again with the Microsoft Edge web browser.
- We ensure the critical operation runs smoothly without difficulties.
- We compare the behaviour and rendering with the Chrome test results.



Safari:

We have tried to download the latest version of safari 17.4 for windows but not able to download it.

Conclusion:

The application's ability to provide a consistent user experience regardless of the browser used is verified by testing the critical operation across a variety pf web browser. Any inconsistencies in functionality or rendering should be identified and fixed to make the application more user-friendly and accessible to a wider variety of users.

English India Keyboard Map:

Set the keyboard layout to English India (Traditional or Simplified).

Open the critical procedure and try to enter the appropriate credentials.

Check to see if the username and password fields accept Chinese characters.

Confirm that the application accurately processes the information and authorizes login.