

1. (a)

```
/* Apply All */
:root {
  background-color: black;
  color: white;
}
```

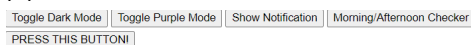
Above is the CSS code snippet initially.

(b)



Above is the current outcome. Where all the background color theme throughout the webpages are black, and writing color theme is white. The reason for choosing these colors is to follow the contrast principle in the CRAP principle.

(c)



Above is the desired outcome. Enable the user to change to the light mode when clicking a button, where all the background color themes throughout the webpages are white, and the writing color theme is black. The reason for choosing these colors is to follow the contrast principle in the CRAP principle.

(d) present a code snippet that would fix the problem

```
<button id="toggleDarkMode">Toggle Dark Mode</button>
```

First, I create a button by adding this line of code in the HTML code to toggle dark mode.

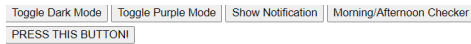
```
<script>
  const toggleDarkMode = document.getElementById('toggleDarkMode');
  toggleDarkMode.addEventListener('click', () => {
    document.body.classList.toggle('dark-mode');
  });
</script>
```

Second, I add the JavaScript code above to switch between light and dark modes when the toggle button is clicked.

```
* .dark-mode {
  background-color: white;
  color: black;
}
```

Lastly, edit the CSS code to style and define dark mode.

(e)



Above is the new outcome of the code.

2. (a) the code snippet

There is no initial code snippet since this feature or code does not exist at first.

(b) current outcome



Above is the current outcome.

(c)



Above is the desired outcome, where there is a button “Show Notification”



Above is the desired outcome after the “Show Notification” button is clicked.

(d) present a code snippet that would fix the problem

```
<button onclick="showNotification()">Show Notification</button>
```

First, I create a button by adding this line of code in the HTML code to enable “Show Notification”.

```
function showNotification() {
  if (Notification.permission === 'granted') {
    new Notification('This is your notification!');
  }
  else if (Notification.permission !== 'denied') {
    Notification.requestPermission().then(permission => {
      if (permission === 'granted') {
        new Notification('This is your notification!');
      }
    });
  }
}
```

Second, I add the JavaScript code above to enable “Show Notification” when the button is clicked.

(e)



Above is the new outcome of the code, where there is a button “Show Notification”



Above is the new outcome after the “Show Notification” button is clicked.