

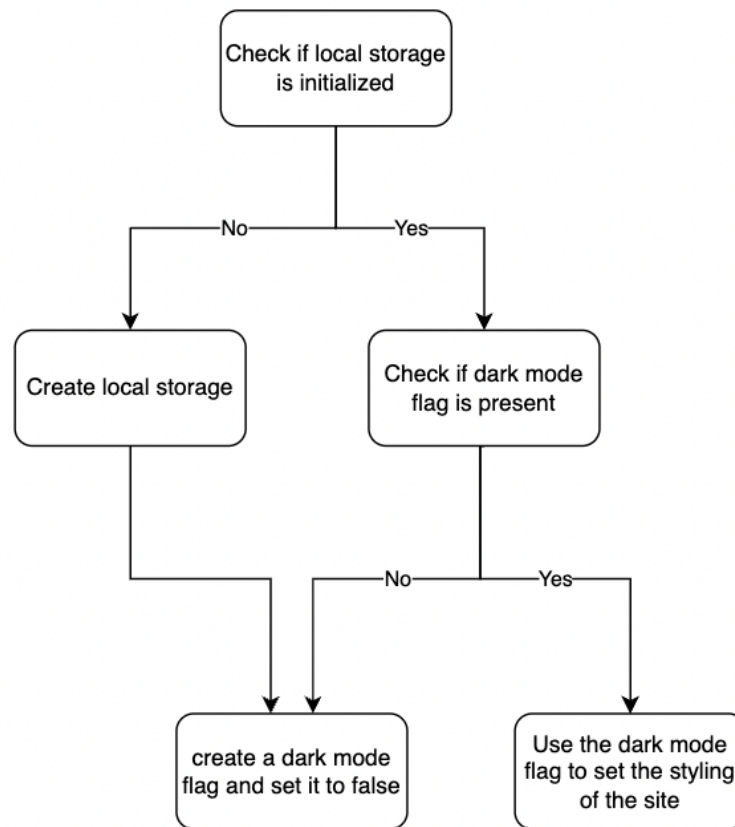
# Unit 5: Script Use and Augmentation

## Design Documentation

### Dark Mode (Enhanced)

This will be an elegant way to implement dark mode into the website as I will be using local storage to keep track of the user's selection even after they have reloaded the page and between website pages. As each persona user reads through the website, their eyes might get fatigued from black text on white backgrounds, so including the ability to change to dark mode for ease of reading is critical here.

### Workflow Diagram



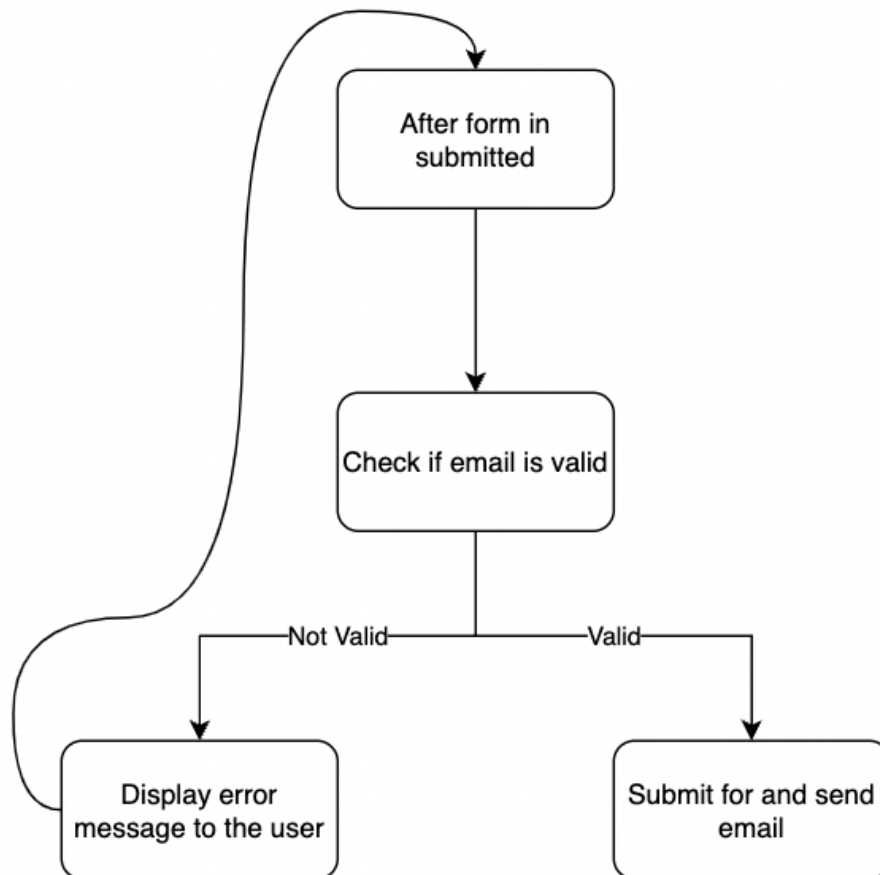
### Pseudo Code

- Get the dark mode value form local storage
- If value is null that means it has not been initialized yet
  - o Set the value to false and add it to local storage
- If value is not null
  - o Change the styling to match what the value is

## Email Verification

This feature is key when sending emails in the next unit as we need the email that the user entered to be valid. This will be our only way to reach back out to the user after they submit the form. All personas will need to enter a valid email, this ensure that they will be reachable, and messages are not anonymous. To achieve this, we can use some simple regular expression to validate the email.

### Workflow Diagram



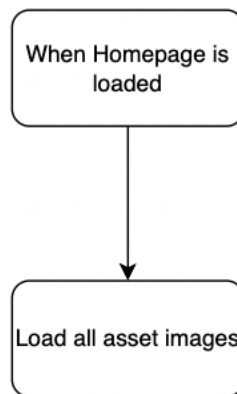
### Pseudo Code

- Use regex to validate that the email contains an @ symbol followed by the domain used for the email
- If this check fails
  - o display an alert and allow the user to resubmit the form
- If this check passes
  - o we will send this message to an email API to be sent off, this will be implemented in the next unit

## Preload Images

This function will preload all the images that the website will use as soon as the user accesses the landing page. While thinking about scalability of the site and the future projects that we are going to develop, I realized that images are a key part of it as it adds “life” to the page. Having a lot of images could severely impact website performance and would require all the personas to have high speed connections for a smooth experience. Especially with persona 3, small business owners may not have access to the fastest internet available, so creating a website that loads in sub 100ms time is key. Preloading these images will create a smoother experience for everyone.

## Workflow Diagram



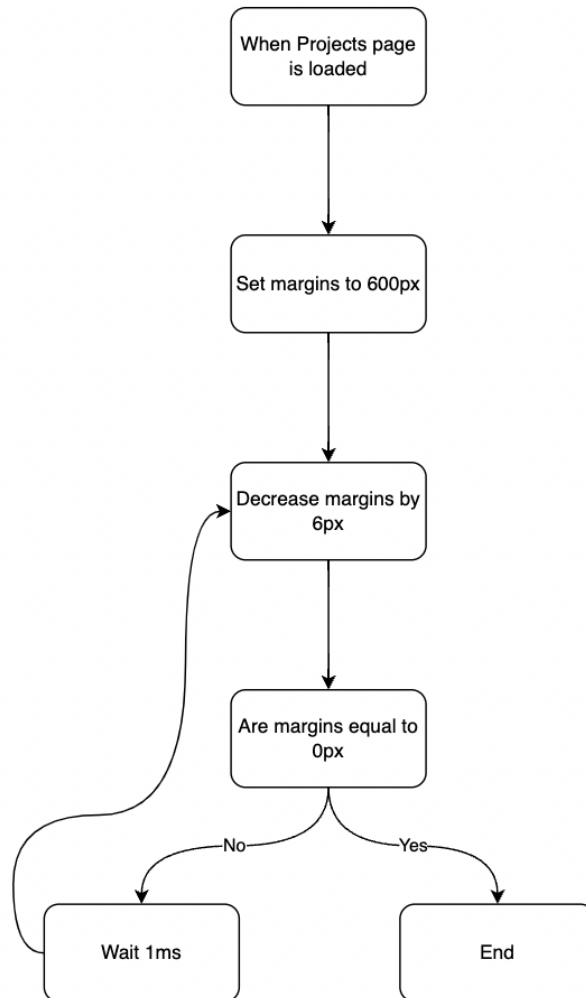
## Pseudo Code

- Homepage is loaded
- Loop through all images that the site will use
  - o For each image, load it in the background

## Dynamic Card Movement on The Page

Adding some movement to a page as it loads gives the illusion that the website is dynamic. This keeps our website lively and interesting. I've always gravitated to websites with unique features such as a new take on parallax scrolling or a cool JS or CSS feature. Having some movement on the page has been shown to increase user retention and time spent on the page. In this function I will move the project tiles into place after some time after the page loads.

### Workflow Diagram



### Pseudo Code

- Set the initial card offset
- Loop if card offset does not equal 0
  - o Translate the cards by that offset
  - o Decrease the offset by 1
  - o Add some delay in milliseconds
  - o Loop