

# Page Navigation Component

## Framework

JavaScript

## Goal

Create a JavaScript app in a TDD manner that uses Jest to test navigation behaviour using the History API and hash-based routing for single-page application functionality.

## Instructions

1. Create a navigation system using hash routes (e.g., #home, #about, #contact)
2. Write tests that verify correct page content displays for each route
3. Test that clicking navigation links updates the hash and shows new content
4. Test the browser back/forward buttons work correctly
5. Create route handling logic that listens to hashchange events
6. Test that invalid routes show a 404/not found message

## Tech & Tools

- Hash-based routing with window.location.hash
- hashchange event listeners
- dispatchEvent for simulating navigation
- DOM manipulation for page content updates

## What to Test

- Initial route displays correct page content
- Clicking navigation links updates hash and content
- hashchange events trigger correct page updates
- Invalid routes display error/404 message
- Navigation highlights active link