# Code Inspection for admin.js

## Description of Admin Page Script:

The JavaScript file `admin.js` powers the functionality of the admin panel. It ensures secure access, handles CRUD operations for users and sensors, and manages interactive UI elements like modals. The script heavily relies on `fetch` API calls to interact with a backend server, and dynamically updates HTML tables based on server responses.

## JS Functionality Overview:

## Access Control & Initialization:

* + Uses `sessionStorage` to validate if the user has admin privileges.
  + Redirects unauthorized users to the home page.
  + Retrieves admin ID from the logged-in user object.

## Fetch User Accounts:

* + Uses `fetchUserAccounts()` to load all user records from an API.
  + Dynamically renders a user table with user info and action buttons (Activate, Promote, Edit, Delete).
  + Stores fetched data in `userAccounts` array for reusability.

## Save Changes Functionality:

* + `window.savechanges()` sends updated user details to the backend.
  + On success, reloads the page to reflect changes.
  + Note: references an undeclared variable `tempPass` (potential bug).

## Sensor Table Header Management:

* + `fetchTableHeaders(tableId)` dynamically populates headers for `line4` and `line5` sensor tables.
  + Filters out system fields like 'timestamp' and 'timezone'.
  + Each header has an associated delete button that calls `deleteSensor()`.

## User Role Management:

- `toggleUserStatus()` and `toggleAdminStatus()` allow activating/deactivating users and promoting/demoting admin rights.

- `toggleUserAdmin()` appears unused but mirrors similar logic.

- All status-changing functions refresh the user table upon completion.

- Error handling with `try-catch` blocks and user alerts for feedback.

## API Integration Details:

- Uses RESTful POST and GET requests.

- Sends and receives JSON payloads.

- Hardcoded `localhost:5000` URLs are used for API endpoints.

- Placeholder for authentication header commented out, suggesting planned secure integration.