

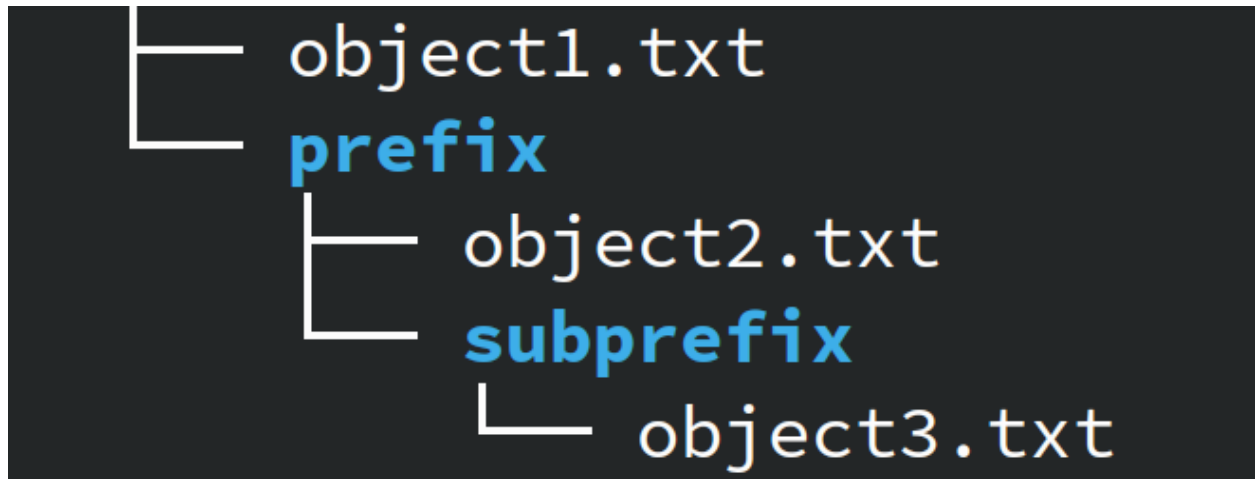
Create a “single page” react app that implements a simple browser for an AWS S3 bucket.

1. Non-functional requirements.

- The presented solution should be as close as possible to production ready.
- Your implementation can be a partial solution. It's up to you where you will draw the line and send it to us.
- The task shouldn't require backend implementation. It should be possible with frontend-only (in browser).
- You should use react and typescript.
- You should not use a CSS framework (e.g. Bootstrap, Foundation, Bulma)
- You should not use a component library (e.g. Material UI, React-Bootstrap, Fluent UI).
- We recommend using the S3 module of [aws-sdk](#) for communication with the s3 bucket.

2. Data - use the S3 API in order to list, create and delete objects in a bucket.

- To connect to S3, use the credentials provided in the email with this task
- S3 is not a filesystem, but you can treat prefixes in object names as directories.
 - You can assume that all objects are text files.
 - An object name of the form **prefix/subprefix/object.txt** can be interpreted as an absolute path to the file name **object.txt**.
 - Note that there is no concept like an empty directory in s3, and part of the task is to devise a way of handling that.
 - To represent the structure given below, you will need those three objects:
 - **object1.txt**
 - **prefix/object2.txt**
 - **prefix/subprefix/object3.txt**



- You should know that the S3 API allows for such operation on a bucket:
 - List all objects in a bucket.
 - List objects in a bucket starting with some prefix.
 - Creating an object with a given name.
 - Getting object data given its name.
 - Deleting an object given its name.

3. Functional spec

- The main goal is to enable users to:
 - Browse an S3 bucket as a filesystem.
 - Create, Read and Delete text files represented as objects in the s3 bucket. No need to update existing.

4. UI/UX

- The user interface can be minimalistic but yet should showcase your understanding of UI which is easy to work with and look at.
- On first interaction the user should be asked to configure some settings:
 - S3 Secret Key
 - Access Key ID
 - The bucket name
- The config should be remembered for subsequent use of the system.
- It should present a simple, file browser-like interface that organizes the bucket by prefixes.
- The file browser should consist of two parts::
 - Currently working directory view (on the right) that:

- Displays the entire content (files and directories) of the so-called “current working directory.”
- Initially the root directory is considered “current”
- It should allow you to navigate up and down the directory structure in some way.
- It should allow you to read the content of a file
- It should allow you to create new subdirectories.
- It should allow you to create new files with a given content.
- It should allow you to delete files.
- Tree view (on the left) that:
 - Shows only directories.
 - Initially it will show only the root subdirectories.
 - A directory containing subdirectories should be marked so the user can understand that it can be expanded.
 - When a marked directory is clicked, it should be expanded, and its subdirs should be displayed.
 - If an expanded directory is clicked, it should be collapsed, and all its subdirs should be hidden.
 - If an expanded directory is clicked, it should be collapsed, and all its sub-dirs should be hidden.
 - If a directory is double-clicked, it should be selected as the current directory and displayed in the other view.
 - The current working directory should always be visible in the tree view and should be “decorated” in some way.
- The web app should be able to detect changes to the bucket and react appropriately by removing non-existent or displaying new directories or files.