

FRAME_MDL_FRONTEND: Testing Guide for external-interface.ts

Folder Structure

Based on your project layout:

- Place tests in a top-level `__tests__` / folder.
- Test file path: `FRAME_MDL_FRONTEND/__tests__/external-interface.test.ts`

Dependencies

Install testing dependencies:

```
npm install --save-dev jest ts-jest @testing-library/react @testing-library/jest-dom @testing-library/user-event  
jest-environment-jsdom
```

Optional (if CSS or asset mocks are needed):

```
npm install --save-dev identity-obj-proxy jest-transform-stub
```

Jest Config (jest.config.js)

```
module.exports = {  
  
  testEnvironment: 'jsdom',  
  
  preset: 'ts-jest',  
  
  moduleNameMapper: {  
  
    '\\.(css|less|scss|sass)$': 'identity-obj-proxy'  
  
  },  
}
```

```
transform: {  
  
  '^.+\\. (ts|tsx)$': 'ts-jest',  
  
},  
  
setupFilesAfterEnv: ['@testing-library/jest-dom/extend-expect'],  
  
collectCoverage: true,  
  
collectCoverageFrom: ['axios/external-interface.ts']  
  
};
```

Script in package.json

```
"scripts": {  
  
  "test": "jest",  
  
  "test:coverage": "jest --coverage"  
  
}
```

How to Run Tests

npm run test

npm run test:coverage

File to Extract

Extract the provided ZIP file to create:

FRAME_MDL_FRONTEND/

__tests__/

external-interface.test.ts

What the Tests Cover

- All Axios methods in external-interface.ts
- Axios calls mocked using jest.mock('axios')
- Ensures headers like Authorization, x-selected-role, etc., are set
- Validates returned data structure

Debugging Tips

- If tests fail with TypeError: Cannot read properties of null (reading 'auth'), check:
 - LocalStorage mocking block in beforeEach
 - Structure of the mocked auth payload
- If Axios methods not called:
 - Ensure mockedAxios.create.mockReturnThis() is called before test
 - Recheck that the API call is awaited in the test
- If Jest doesn't find tests:
 - Ensure external-interface.test.ts is inside __tests__/
 - Ensure test file ends with .test.ts

Suggested Next Steps

- Add MSW for full E2E mocking
- Expand coverage to reducers and UI components
- Use test coverage reports to drive additional test writing

