**Testing Engine**

**1. Unused Code:**

* **backend/app/testing\_engine/routes/test\_generation.py** (lines 1-72)
* This entire file contains a router with a /generate-ui-test-cases endpoint that is never imported or included in the main application
* The test\_generation.py router is not imported in main.py nor in the api.py aggregation file
* The functionality appears to be superseded by generate\_ai\_test\_cases.py which is properly imported in the main app
* **backend/app/testing\_engine/predict\_frm.py** (lines 49-75)
* The get\_prediction\_history function (lines 49-75) is defined but never called anywhere in the codebase
* The main API router for this file is included, but this specific function has no route registered to it
* **frontend/src/components/testing\_engine/GenerateTestCasesButtonCurrentForm.tsx** (entire file)
* This file exists but is entirely empty (0 bytes)
* No imports or references to this component found in the codebase
* **frontend/src/components/testing\_engine/CopyableCode.tsx** (entire file)
* This file exists but is completely empty (0 bytes)
* There are no imports or references to this component in the codebase
* **backend/app/testing\_engine/chat.py** (lines 176-207)
* The generate\_playwright\_code function is implemented but uses deprecated openai.ChatCompletion.create syntax
* This function is never called from any other part of the codebase
* A similar functionality is implemented in generate\_playwright\_script.py using the updated OpenAI API
* **backend/app/testing\_engine/save\_playwright\_script.py** (lines 79-116)
* The standalone save\_playwright\_script function (outside the router) is defined but not used
* The function appears to duplicate functionality already provided by the router handler
* Uses hardcoded filename "playwright\_ourapp\_test.spec.ts" instead of the dynamic approach in the route handler

**2. Unwanted Pages:**

* **frontend/src/components/testing\_engine/TestingEngineInternalPreview.tsx** (entire file)
* No import references found to this component throughout the codebase
* The component appears to be an earlier implementation that was later replaced or refactored
* Contains potentially useful code but is not actively used in the application flow
* **frontend/src/components/testing\_engine/ClientWrapper.tsx** (entire file)
* This component, while small, is never imported or referenced in the main application
* May have been created for a specific feature that was later removed or redesigned

**3. Deprecated & Unused Features:**

* **backend/app/testing\_engine/api.py** (lines 395-435)
* Contains a duplicate implementation of the execute\_test function that is already properly implemented in execute\_test.py
* This causes confusion in the codebase as it's unclear which implementation is meant to be used
* The implementation in the dedicated file is properly registered with a router and imported in main.py
* **backend/app/testing\_engine/chat.py** (lines 176-207)
* The generate\_playwright\_code function uses deprecated OpenAI API syntax:

python

Apply to paymentTempl...

  await openai.ChatCompletion.create(

      model="gpt-4-0125-preview",

      messages=[...],

* The rest of the codebase has been updated to use the new client-based approach:

python

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  await openai.chat.completions.create(

      model="gpt-4-turbo-preview",

      messages=[...],

* **backend/app/testing\_engine/analyze\_prompt.py** (lines 38-82)
* The function contains a JSON parsing attempt with variable json that is not imported:

python

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  try:

      result = json.loads(content)

      return {

          "analysis": result.get("analysis", ""),

          "testCases": result.get("testCases", [])

      }

  except json.JSONDecodeError:

* This would raise a NameError when executed as the json module is not imported
* **backend/app/testing\_engine/generate\_test\_cases.py** (lines 8-37)
* Contains hardcoded template test cases in COMMON\_TEST\_CASE\_TEMPLATES dictionary
* These templates are defined but never used in the actual code
* The AI-based generation completely ignores these templates

**4.** **Summary and Recommendations**

The Testing Engine module contains several pieces of unused, redundant, or deprecated code that should be addressed:

1. **Delete:**

* GenerateTestCasesButtonCurrentForm.tsx and CopyableCode.tsx - Completely empty files
* routes/test\_generation.py - Functionality superseded by other modules and not included in main app
* The duplicate execute\_test function in api.py (lines 395-435) that duplicates functionality

1. **Refactor:**

* chat.py - Update the generate\_playwright\_code function to use the current OpenAI API pattern
* analyze\_prompt.py - Add the missing import json statementa
* predict\_frm.py - Either create a route for the get\_prediction\_history function or remove it
* save\_playwright\_script.py - Remove the standalone helper function that duplicates router functionality

1. **Consolidate:**

* Consider consolidating related test generation functionality from generate\_test\_cases.py, generate\_ai\_test\_cases.py, and routes/test\_generation.py into a single, consistent approach