Code Repo (Rodrigo Spinola and David Ferrufino have been invited as collaborators): https://github.com/J-Stephens7/medical-bill-translator

Public Submission Repo:

https://github.com/RDAbos/AssignmentRepoDemo

Demo Video: https://youtu.be/vcCTOGrdYBA

Test Case Planning

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1. ## Use Case 1 - *Upload and Parse Medical Bill*

Test Case ID	TC01 - Valid file input
Test Objective	**The User uploads a valid file type (PNG, JPEG, & PDF), the system correctly uploads the file.**
Preconditions	● The user can open and access the application. ● The user is on the upload page. ● The backend and database are active and connected.
Test steps	1. Open the web application. 2. Navigate to the Upload File section. 3. Select a valid file type (PNG, JPEG, or PDF). 4. Click the Upload button. 5. Confirm and upload the file.

Input Values	1. PNG file: MedicalBill.png
	   a. MedicalBillSideways.png
	   b. UnrelatedText.png

	2. PDF file: Medical Bill Mock Up.pdf
	    a. UnrelatedTextNOTextLayer.pdf
	    b. UnrelatedTextWithTextLayer.pdf
	3. JPEG file: MedicalBill.jpg

Expected results	● The system accepts the file and begins processing. ● The system transitions to the next file parsing step ● The system displays a graphic table of the parsed data ● No error messages or warnings are displayed.

Test Case ID	**TC02 - Invalid file type**
Test Objective	**The user uploads an invalid file type, the system should not accept it.**
Preconditions	● The user can open the application. ● The user is on the Upload Page
Test steps	1. Open the web application. 2. Navigate to the Upload File section. 3. Click the Upload File button. 4. Select an invalid file type (e.g., .docx file). 5. Attempt to upload the file.
Input Values	Invalid file: TestSample.docx
Expected results	● The system displays an error message showing the file type isn't valid ● Error: File type not supported (.pdf, .png, .jpg only) ● File should not be parsed.

Test Case ID	**TC03 - Invalid file size**
Test Objective	**Tests if the application can properly handle file sizes that exceed the maximum size**
Preconditions	● The user can open and access the application ● The user is on the Upload Page ● The system supports file types .pdf, .png, and .jpg

Test steps	1. Open the web application. 2. Navigate to the Upload File section. 3. Click the Upload File button. 4. Select a valid file type (e.g., .pdf) that exceeds 10 MB in size. 5. Attempt to upload the file.
Input Values	PDF, JPEG, or PNG file containing medical bill information. File must be larger than 10 MB
Expected results	● The system blocks the upload and does not send the file to the backend. ● An error message is displayed to the user: ("Error: File size exceeds supported limit (10 MB)") ● The upload field is reset, allowing the user to select a new file. ● The file is not uploaded or processed.

Test Case ID	**TC04 - Valid text Input**
Test Objective	**Verify that when a user enters valid medical codes and billing information manually, the system correctly parses and displays the results in a table format.**
Preconditions	● The user can open the application. ● The user in on the Manual Entry page ● The database contains the medical codes that will be used in the bill. ● The input box is active and ready for text entry.
Test steps	1. Open the web application 2. Navigate to the Manual Entry Page. 3. Enter valid medical billing text into the text input box 4. Click "Continue to Parsed Table."
Input Values	Enter the following: Patient Name: John Doe Date of Service: 10/25/2025 Provider: Riverbend Medical Center Code Description Charge Dates 96105 Assessment of aphasia $250.00 10/25/2025

	97755 Assistive technology assessment $300.00 10/25/2025
	90912 Biofeedback training (first 15 min) $180.00 10/26/2025
	90913 Biofeedback training (each addl 15 min) $150.00 10/26/2025
	78300 Bone imaging (limited area) $275.00 10/27/2025
	78306 Bone imaging (whole body) $400.00 10/27/2025
	77061 Breast tomosynthesis (one breast) $350.00 10/27/2025
	77062 Breast tomosynthesis (both breasts) $450.00 10/27/2025
	75557 Cardiac MRI (without contrast dye) $900.00 10/28/2025
	75561 Cardiac MRI (with contrast dye) $975.00 10/28/2025
	Total Amount: $4,230.00
	Insurance Coverage: 80%
	Patient Responsibility: $846.00
Expected results	- The system should be able to successfully parse the text and verify that each of them exists within the database. - A parsed table appears showing the codes and details - Displays parsed codes in a results table with date, code, and amount.

Test Case ID	**TC05 - Invalid medical code**
Test Objective	Verify that the system correctly identifies and handles medical codes that do not exist or are invalid, and provides an appropriate error message to the user
Preconditions	- The user can open the application - The user is on the medical code input page or upload form. - The database of valid CPT codes is loaded and accessible.
Test steps	1. Navigate to the code entry or upload section.

	2. Enter an invalid medical code (e.g., "ABCDE") manually or upload a bill containing an invalid code. 3. Submit the code or bill for processing.
Input Values	File Upload: Incorrect Codes Medical Bill Mock Up.pdf Manual Text: Enter the following text: Patient Name: Jane Smith Date of Service: 10/25/2025 Provider: Hillside Health Center Code Description Charge Date 96105 Assessment of aphasia $250.00 10/24/2025 97755 Assistive technology assessment $300.00 10/25/2025 AAAA1 Invalid sample code $200.00 10/25/2025 78300 Bone imaging (limited area) $275.00 10/25/2025 99999 Placeholder fake code $125.00 10/25/2025 77062 Breast tomosynthesis (both breasts) $450.00 10/25/2025 XYZ12 Nonexistent code for error test $300.00 10/26/2025 75561 Cardiac MRI (with contrast dye) $975.00 10/26/2025 Total Amount: $2,875.00 Insurance Coverage: 75% Patient Responsibility: $718.75

Expected results	The system does not crash and displays "unknown procedure" next to the code.