

Git Repo: <https://github.com/J-Stephens7/medical-bill-translator>

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

Test Case Planning

Group members 18	Antoine Turner Ryan Boswell Giovanna Alves James Stephens Josh Epstein
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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	<ul style="list-style-type: none">• 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	<ol style="list-style-type: none">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	<ol style="list-style-type: none">1. PNG file: MedicalBill.png<ol style="list-style-type: none">a. MedicalBillSideways.pngb. UnrelatedText.png2. PDF file: Medical Bill Mock Up.pdf<ol style="list-style-type: none">a. UnrelatedTextNOTextLayer.pdfb. UnrelatedTextWithTextLayer.pdf3. JPEG file: MedicalBill.jpg

Expected results	<ul style="list-style-type: none"> • 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.
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Test Case ID	TC02 - Invalid file type
Test Objective	The user uploads an invalid file type, the system should not accept it.
Preconditions	<ul style="list-style-type: none"> • The user can open the application. • The user is on the Upload Page
Test steps	<ol style="list-style-type: none"> 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ol style="list-style-type: none"> 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none">• 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	<ol style="list-style-type: none">1. Open the web application2. Navigate to the Manual Entry Page.3. Enter valid medical billing text into the text input box4. Click “Continue to Parsed Table.”								
Input Values	<p>Enter the following:</p> <p>Patient Name: John Doe</p> <p>Date of Service: 10/25/2025</p> <p>Provider: Riverbend Medical Center</p> <table><thead><tr><th>Code</th><th>Description</th><th>Charge</th><th>Dates</th></tr></thead><tbody><tr><td>96105</td><td>Assessment of aphasia</td><td>\$250.00</td><td>10/25/2025</td></tr></tbody></table>	Code	Description	Charge	Dates	96105	Assessment of aphasia	\$250.00	10/25/2025
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	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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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.

	<div>2. Enter an invalid medical code (e.g., “ABCDE”) manually or upload a bill containing an invalid code.</div> <div>3. Submit the code or bill for processing.</div>																																				
Input Values	<div>File Upload: Incorrect Codes Medical Bill Mock Up.pdf</div> <div>Manual Text:</div> <div>Enter the following text:</div> <div>Patient Name: Jane Smith</div> <div>Date of Service: 10/25/2025</div> <div>Provider: Hillside Health Center</div> <table><tr><th>Code</th><th>Description</th><th>Charge</th><th>Date</th></tr><tr><td>96105</td><td>Assessment of aphasia</td><td>\$250.00</td><td>10/24/2025</td></tr><tr><td>97755</td><td>Assistive technology assessment</td><td>\$300.00</td><td>10/25/2025</td></tr><tr><td>AAAA1</td><td>Invalid sample code</td><td>\$200.00</td><td>10/25/2025</td></tr><tr><td>78300</td><td>Bone imaging (limited area)</td><td>\$275.00</td><td>10/25/2025</td></tr><tr><td>99999</td><td>Placeholder fake code</td><td>\$125.00</td><td>10/25/2025</td></tr><tr><td>77062</td><td>Breast tomosynthesis (both breasts)</td><td>\$450.00</td><td>10/25/2025</td></tr><tr><td>XYZ12</td><td>Nonexistent code for error test</td><td>\$300.00</td><td>10/26/2025</td></tr><tr><td>75561</td><td>Cardiac MRI (with contrast dye)</td><td>\$975.00</td><td>10/26/2025</td></tr></table> <div>Total Amount: \$2,875.00</div> <div>Insurance Coverage: 75%</div> <div>Patient Responsibility: \$718.75</div>	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
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Expected results	The system does not crash and displays “unknown procedure” next to the code.
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