Test Case Planning

Group members 18	Antoine Turner Ryan Boswell Giovanna Alves James Stephens Josh Epstein

UC2

1.   Use Case 2

Test Case ID	TC06-Translate Valid Medical Codes
Test Objective	Verify that the system correctly translates valid medical codes into plain-language descriptions and displays them properly in the report.
Preconditions	● The user can open the application. ● The user is on the Upload page or Manual Input page. ● The backend API and database are running and accessible. ● The database contains the provided medical codes.
Test steps	Note: Either input method (File Upload or Manual Text Input) is acceptable for executing this test case. Both paths are functionally equivalent and should produce identical results. **Option A — File Upload Path** 1. Navigate to the Upload Your Medical Bill page. 2. Click Choose File. 3. Select the file TC06_ValidCodes.pdf. 4. Click Upload.

	5. Wait for the Parsed Medical Bill table to appear. 6. Verify each row displays the expected information. **Option B — Manual Text Input Path** 1. Navigate to the Manual Medical Code Input page. 2. Paste the provided valid medical bill text into the text box. 3. Click Continue to Parsed Table. 4. Wait for the Parsed Medical Bill table to appear. 5. Verify each row displays the expected information.
Input Values	**File Upload:** Valid Medical Bill TC06TestFile.pdf Manual Input text: Jane Doe 12345 West Street Richmond, VA 23173 Patient Name: Jane Doe Itemized Services 10/10/2025 | Apply intracavitary radiation, simple | 77761 | 1 | $35.00 10/10/2025 | Nuclear medicine CSF flow study | 78630 | 1 | $30.00 10/13/2025 | CT scan (cross-sectional images) | 72193 | 1 | $45.00 10/16/2025 | MRI scan (no radiation) | 72156 | 1 | $50.00 10/17/2025 | CT scan (cross-sectional images) | 0225U | 2 | $75.00 10/17/2025 | CT scan (cross-sectional images) | 0464U | 1 | $145.00 Subtotal: $380.00 Blue Sky Health Center

67222 Greenwell Blvd
Richmond, VA 23200

If you have questions, please contact us:
Phone: 804-273-1102
Email: billing@blueskyhealthcenter.com

Expected results	- All valid codes show correct plain-language translations. - No codes are flagged as Duplicate or Unknown. - All rows display ✓ OK (green). - No warnings or errors appear.

Test Case ID	**TC07 Invalid medical codes**
Test Objective	Ensure the system identifies and flags codes that do not exist in the database and provides an appropriate error message.
Preconditions	- The user is on the Upload or Manual Input page, or the user is on the medical code input page - The backend API and database are running
Test steps	Note: Either input method (File Upload or Manual Text Input) is acceptable for executing this test case. Both paths are functionally equivalent and should produce identical results. **Option A — File Upload Path** 1. Navigate to Upload Your Medical Bill. 2. Click Choose File. 3. Select TC07_InvalidCodes.pdf. 4. Click Upload. 5. Wait for the Parsed Medical Bill table to appear. 6. Review rows containing invalid codes. Option B — Manual Text Input Path

	1. Navigate to Manual Medical Code Input. 2. Paste the invalid-code test text into the input box. 3. Click Continue to Parsed Table. 4. Wait for the Parsed Medical Bill table to load. 5. Review rows containing invalid codes.
Input Values	File Upload: Mixed Codes Medical Bill TC07InvalidCodes.pdf Manual Input text: Itemized Medical Bill Patient Name: Sarah Thompson Provider: Lakeside Medical Group Date of Statement: 11/05/2025 Itemized Services 10/28/2025 | General consultation | ABC12 | 1 | $120.00 10/28/2025 | Physical therapy assessment | 97162 | 1 | $110.00 10/29/2025 | Follow-up exam | 99999 | 1 | $95.00 10/31/2025 | CT scan (abdominal/pelvic) | 74177 | 1 | $250.00 Total Charges: $910.00 If you have questions, please contact our billing office: Phone: 804-555-2299 Email: billing@lakesidemedgroup.com
Expected results	● Invalid codes show Flagged. ● Invalid codes Description says "Unknown procedure" ● Valid codes appear normally with OK. ● No crash or system failure. ● All rows remain visible and selectable.

Test Case ID	**TC08 Duplicate medical code**
Test Objective	Verify that the system detects duplicate codes and flags them as potential billing errors.
Preconditions	● The user is on the Upload or Manual Input page. ● Backend supports invalid-code flagging.
Test steps	Note: Either input method (File Upload or Manual Text Input) is acceptable for executing this test case. Both paths are functionally equivalent and should produce identical results. Option A — File Upload Path 1. Navigate to Upload Your Medical Bill. 2. Click Choose File. 3. Select TC08_DuplicateCode.pdf. 4. Click Upload. 5. When the Parsed Medical Bill table appears, review the entries for duplicate codes. Option B — Manual Text Input Path 1. Navigate to Manual Medical Code Input. 2. Paste the duplicate-code sample text into the input box. 3. Click Continue to Parsed Table. 4. Wait for the Parsed Medical Bill table to appear. 5. Review duplicate rows for correct flagging.
Input Values	TC08_DuplicateCode.pdf For Manual Input Page: Patient Name: Jane Smith Date of Service: 10/25/2025 Provider: Hillside Health Center

	Code Description Charge Date 97755 Assistive technology assessment $300.00 10/25/2025 96105 Assessment of aphasia $250.00 10/24/2025 78300 Bone imaging (limited area) $275.00 10/25/2025 97755 Assistive technology assessment $300.00 10/25/2025 77062 Breast tomosynthesis (both breasts) $450.00 10/25/2025 Total Amount: $1,575.00 Insurance Coverage: 75% Patient Responsibility: $393.75
Expected results	● Both occurrences of the duplicate code show a red badge labeled 'Duplicate Code ● Non-duplicate codes show ✓ OK. ● The system does not crash.

Test Case ID	**TC09-Generate and Display Report**
Test Objective	Confirm that the system generates and displays the translated report in a structured, readable table format.
Preconditions	● The parsed table is visible. ● At least one row available to select.

Test steps	Note: Either input method (File Upload or Manual Text Input) is acceptable for executing this test case. Both paths are functionally equivalent and should produce identical results. Option A — Use File Upload to Reach Parsed Table 1. Upload TC09_Duplicate_And_Unknown.pdf through the Upload page (Choose File → Upload). 2. Wait for the Parsed Table to appear. Option B — Use Manual Input to Reach Parsed Table 1. Paste the TC09 mixed-code text into Manual Input. 2. Click Continue to Parsed Table. 3. Wait for the Parsed Table to appear. Common Steps (Both Methods) 4. Select at least one valid row and one flagged row. 5. Click Generate Report. 6. Verify the Generated Report page displays the selected items clearly.
Input Values	TC09_Duplicate and Unknown.pdf TC09_Duplicate and Unknown text Patient Name: John Doe Date of Service: 10/20/2025 Provider: Green Valley Medical Center Code Description Charge Date 97755 Assistive technology assessment $300.00 10/20/2025 99999 Unknown procedure $150.00 10/20/2025 77062 Breast tomosynthesis (both breasts) $450.00 10/21/2025

	97755 Assistive technology assessment $300.00 10/20/2025 Total Amount: $1,200.00 Insurance Coverage: 70% Patient Responsibility: $360.00
Expected results	- The report is successfully generated and loaded. - The table displays all selected rows with columns: Code | Description | Charge | Date | Status - Status badges are correct: - Valid codes → green "✓ OK" - Invalid codes → red "Unknown Procedure" - Duplicate codes → red "Duplicate Code" - All rows remain visible in the report. - Table layout is readable, scrollable, and free of formatting issues. - No system errors or crashes occur.