# GPV MED DICOM Viewer - User Story Document

## Overview

GPV MED is a specialized DICOM viewer application that provides an enhanced user interface for medical professionals to access, view, and manage medical imaging data. The application consists of two main components:

1. Patient Selection Interface: A modern, user-friendly interface for selecting patients and importing DICOM files

2. DICOM Viewer: A powerful medical imaging viewer for analyzing DICOM images

## User Stories

1. Patient Selection and Management

A healthcare professional, wants to view a list of patients with their associated DICOM images,

So that they can quickly find and select the patient records they need to review.

Acceptance Criteria:

- The main interface displays a table with patient records including:

- Patient ID

- Patient Name

- Accession number

- Modality (CT, MRI, DX, IO, CR)

- Description

- Date and Time

- Source AE

- Report availability

- Offline status

- Users can filter patients by date range (1D, 3D, 1W, 1M, 1Y, ANY)

- Users can filter by modality (All, CT, MRI, DX, IO, and CR)

- Users can select a patient record by clicking on it

- Clicking a patient record and clicking on the DICOM record opens the associated DICOM image in the viewer

2. DICOM Import

A healthcare professional wants to import new DICOM files into the system, So that they can view and analyze newly acquired medical images.

Acceptance Criteria:

- Users can click an "Import" button to open the import dialog

- The import dialog allows entry of:

- Patient ID

- Patient Name

- Accession number

- Description

- Modality selection (CT, MRI, DX, IO, CR)

- Medical image file selection

- Optional report file selection

- Source AE selection

- Users can browse for DICOM files on their local system

- Users can optionally select a report file to associate with the DICOM image

- The system validates that a medical image file type which is selected before import

- The system can automatically open the imported DICOM file in the viewer

3. DICOM Viewing

A healthcare professional wants to view and analyze DICOM images with specialized tools, So that they can make accurate diagnoses and treatment decisions.

Acceptance Criteria:

- The DICOM viewer opens when a patient record is double-clicked or a new file is imported

- The viewer displays the DICOM image with proper orientation and scaling

- The DICOM explorer panel is positioned on the left side of the viewer

- Users can navigate between multiple images in a series

- The viewer provides tools for image manipulation (zoom, pan, window/level)

- The viewer displays relevant DICOM metadata.

4. Import Validation and Feedback

A User needs to receive clear feedback when importing details and dicom files, so that they know immediately whether their action succeeded or failed.

Acceptance Criteria:

- The user Clicks import without first choosing a medical image file, and popup message will appear saying “Please select a medical file to import”.

- If the user selects a Different fil format other than .dcm, it will show a message saying unsupported file type.

- On import success or on import failure the system will show the relevant messages.

5. Dark Mode Support

A user wants to use the application in a theme that is comfortable for them.

Acceptance Criteria:

- In dark mode, the interface uses appropriate dark colors for backgrounds and text

- In light mode, the interface uses standard light colors

- All UI elements maintain proper contrast and readability in both modes

- The theme is consistently applied across all parts of the application. (Application restart required for proper theme application).

## User flow

1. Application Launch:
   1. The GPV\_main interface appears showing the patient selection screen.
   2. Patient data is displayed in the table.
2. Patient Selection:
   1. User can filter patients by date range or modality.
   2. User selects a patient by clicking on their row.
   3. User double-clicks to view the patient's DICOM images.
3. DICOM Import:
   1. User clicks the "Import" button.
   2. User fills in patient details and selects DICOM file.
   3. User clicks "Import" or "Import and Save".
   4. The file is imported and added to the patient table.
   5. The DICOM viewer opens with the imported file.
4. DICOM Viewing:
   1. User views and manipulates the DICOM image.
   2. User can use various tools for analysis.
   3. When finished, user clicks back button.
5. Return to Patient Selection:
   1. The patient selection interface reappears.
   2. User can select another patient or import more files.