Asset Title *	Lung Cancer Detector
Content Creator *	Jesus Gomez
Primary Contact(s) for Content *	Jesus Gomez
Industry Focus *	Health Care
Describe the Problem Statement *	A prominent health institution, specialized in cancer, is looking for a solution to assist doctors on identifying lung cancer through enhanced color CT scans.
What are you trying to Solve for (Business Use Case) *	Currently CT Scans are one of the most valuable tools to diagnose lung cancer. However, understanding and interpreting the CT Scans is a challenging activity that has to be performed by experienced professionals, who still might miss key information. The business case for this problem is to be able to assist health care providers by enhancing or augmenting the CT Scans to find anomalies and reduce the rate of missing critical findings.
Goals / Metrics *	Goals: 1. Build a Pipeline to extract and transform annotated CT Scans into point clouds. 2. Use the point clouds to train an object segmentation model to detect lung anomalies. 3. Implement a UI to read CT Scans (DICOM) and display a color-coded image with regions of interest for the doctor.
Expected Deliverables *	• Exploratory data analysis • Models • User Interface • Solution with Demo and Final Presentation
Are Data Sets available? *	Yes
Data Sets List (Please **attach Zip files**)	Please download the data from Original Dataset: Data from The Lung Image Database Consortium (LIDC) and Image Database Resource Initiative (IDRI): A completed reference database of lung nodules on CT scans (LIDC-IDRI) - The Cancer Imaging Archive (TCIA) Public Access - Cancer Imaging Archive Wiki Curated Dataset with cloud points already extracted: Data - Grand Challenge (grand-challenge.org)
Links to the **Websites** to Scrape the data needed *	N/A
Additional Notes	