

## Data Collection and Preprocessing Phase

Date	1 Oct 2024
Team ID	team-739715
Project Title	Real-time Bone Fracture Detection with YOLO-V8 Using X-ray Images
Maximum Marks	2 Marks

### Data Collection Plan & Raw Data Sources Identification Template

The data collection plan sources annotated X-ray images from platforms like Kaggle and Roboflow, focusing on diverse fracture types. Raw data will be preprocessed with resizing and noise reduction to ensure quality for YOLO-V8 training.

### Data Collection Plan Template

Section	Description
Project Overview	This project uses <b>YOLO-V8</b> to detect bone fractures in X-ray images in real-time, enabling quick and accurate diagnostics to assist healthcare professionals and improve patient outcomes.
Data Collection Plan	The plan involves gathering annotated X-ray images of various fracture types from diverse medical imaging datasets, ensuring coverage of different demographics, image qualities, and anatomical variations.
Raw Data Sources Identified	<input type="checkbox"/> <b>Public Databases:</b> Datasets from Kaggle and other open medical repositories. <input type="checkbox"/> <b>Hospital Archives:</b> De-identified X-ray records with expert annotations.

	<input type="checkbox"/> <b>Synthetic Data:</b> Augmented or simulated X-rays for underrepresented fracture types.  <input type="checkbox"/> <b>Research Publications:</b> X-ray images shared in academic studies.
--	---

### Raw Data Sources Template

Source Name	Description	Location/URL	Format	Size	Access Permissions
Dataset 1	Collected from Roboflow	<a href="https://universe.roboflow.com/bone-fracture-du9uv/three-ogwgy/dataset/1">https://universe.roboflow.com/bone-fracture-du9uv/three-ogwgy/dataset/1</a>	JPG , Text	1.13 GB	Public
Dataset 2	Collected from Roboflow	<pre>!pip install roboflow  from roboflow import Roboflow  rf = Roboflow(api_key="CVHkA2xOXKyHl5d3sTvA")  project = rf.workspace("bo</pre>	JPG, Text	1.13 GB	Private (with access)

		<pre>ne-fracture- du9uv").project("t hree-ogwgy")  version = project.version(1)  dataset = version.download ("yolov8")</pre>			
--	--	--	--	--	--