

## Data Collection and Preprocessing Phase

|               |   |
|---------------|---|
| Date          | 30 Sep 2024   |
| Team ID       | team-740082   |
| Project Title | Real-time Bone Fracture Detection with YOLO-V8 Using X-ray Images |
| Maximum Marks | 2 Marks   |

### Data Quality Report Template

The data quality report for the real-time bone fracture detection project highlights key attributes of the X-ray dataset. The dataset consists of images, 2193 training, 91 test and 91 validation, covering diverse fracture types and locations. Images are annotated in YOLO format with bounding boxes to ensure precise labeling. Preprocessing steps, including noise reduction and normalization, were applied to enhance clarity and consistency. Initial analysis revealed some imbalances in fracture types, which were addressed using augmentation techniques. Overall, the dataset is robust, well-prepared, and suitable for training the YOLO-V8 model.

| Data Source | Data Quality Issue   | Severity | Resolution Plan                           |
|-------------|--|----------|---|
| Code        | Collected from ultralytics                                     | Low      | Made modifications by giving my file path |
| Dataset     | Given only train dataset but not given test and valid dataset. | High     | Made a new dataset in Roboflow            |
| Templates   | Downloaded from bootstrap                                      | Low      | Modified as per my project                |