

## Data Collection and Preprocessing Phase

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| Date          | 11 July 2024                                     |
| Team ID       | SWTID1720067113                                  |
| Project Title | Dog Breed Identification using Transfer Learning |
| Maximum Marks | 2 Marks  |

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

Elevate your data strategy with the Data Collection plan and the Raw Data Sources report, ensuring meticulous data curation and integrity for informed decision-making in every analysis and decision-making endeavor.

### Data Collection Plan Template

| Section                     | Description   |
|-----------------------------|---|
| Project Overview            | The Dog Breed Identification project aims to classify images of dogs into their respective breeds using advanced machine learning techniques, specifically transfer learning. The primary objective is to leverage pre-trained convolutional neural networks to extract features from dog images and use these features to train a classifier that can accurately identify the breed of a dog from a given image. |
| Data Collection Plan        | Data for this project will be sourced primarily from publicly available datasets. The main dataset will be obtained from the Kaggle competition "Dog Breed Identification," which provides a large collection of labeled dog images. This dataset is ideal for transfer learning as it contains a diverse set of images across various dog breeds.  |
| Raw Data Sources Identified | <b>Description:</b> This dataset consists of images of dogs labelled with their corresponding breeds. The dataset includes a training set with labelled images and a test set with unlabelled images. The training  |

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|  | <p>set will be used to train the model, while the test set will be used to evaluate its performance.</p> <p><b>Contents:</b></p> <ul style="list-style-type: none"> <li>• train/: A folder containing training images.</li> <li>• test/: A folder containing test images.</li> <li>• labels.csv: A CSV file containing image IDs and their corresponding breed labels.</li> </ul> |
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### Raw Data Sources Template

| Source Name    | Description                              | Location/URL  | Format                                       | Size   | Access Permissions |
|----------------|--|---|--|--------|--------------------|
| Kaggle Dataset | Images of various dog breeds with labels | <a href="https://www.kaggle.com/competitions/dog-breed-identification/data?select=train">https://www.kaggle.com/competitions/dog-breed-identification/data?select=train</a> | 1. JPEG Images files<br>2. Labels are in CSV | 1.1 GB | Public             |