**Data Collection and Preprocessing Phase**

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| Date | 12 June 2025 |
| Team ID | SWTID1749710222 |
| Project Title | Unlocking Silent Signals: Decoding Body Language with Mediapipe |
| 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**

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| **Section** | **Description** |
| Project Overview | The project aims to develop a system that can interpret human body signals and movements in real time. It uses Mediapipe's pose, face, and hand landmark points to classify nonverbal communication signals into predefined categories (happy, sad, victorious, fight). The main objective is to enhance human-computer interaction, communication, and understanding through body language.. |
| Data Collection Plan | The data is generated manually by capturing video from a webcam while performing different gestures or expressions. The Mediapipe pipeline converts these movements into structured landmark points (coordinates), which are then labeled and saved into a CSV file for further analysis and training. |
| Raw Data Sources Identified | The raw data comes directly from real-time video recordings using a phone or laptop camera. Mediapipe converts these video frames into CSV files (coords.csv) filled with x, y, z coordinates of key body points (such as face, hands, and pose). Each row in this CSV corresponds to a single frame's landmark points alongside its associated label (happy, sad, victorious, or fight). |

**Raw Data Sources Template**

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| **Source Name** | **Description** | **Location/URL** | **Format** | **Size** | **Access Permissions** |
| coords.csv | CSV file generated from Mediapipe's face, hand, and pose landmark points. Each row corresponds to a single frame's key points labeled with a class (happy, sad, victorious, fight). | <https://github.com/JahnaviNaiduu/AI_Body_Language_Detector/tree/main/Dataset> | CSV | ≈ 500–1000 samples (frames) | Public (generated by the team) |