**A day-wise schedule**

**Project: ActionLink**

**Description:**

ActionLink is a Machine Learning project used for sign language and action detection using LSTM(Long-short term Memory) a deep learning Model. the system enables more seamless interactions between individuals proficient in sign language and those who are not.

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| **Sl.No** | **Week** | **Date** | **The task to be built on a day-wise schedule** |
| 1 | Week\_1 | **25-04-2024**  (Thursday) | Creating an abstract document and understanding the related use cases relevant to this project. |
| 2 | **26-04-2024**  (Friday) | Finding and understanding the necessary dependencies, and exploring how they can be integrated into this project. |
| 3 | **27-04-2024**  (Saturday) | Importing and installing the collected dependencies |
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| 4 | Week\_2 | **29-04-2024**  (Monday) | defining Keypoints using MP Holistic by reading feed through MediaPipe model that was built |
| 5 | **30-04-2024**  (Tuesday) | Extract Keypoint Values and saving them |
| 6 | **01-05-2024**  (Wednesday) | Creating directories or folders to organize and store collections of data feed each containing atleast 30 frames of each sign gesture or action. |
| 7 | **02-05-2024**  (Thursday) | Collecting Keypoint values for Training and Testing |
| 8 | **03-05-2024**  (Friday) | Preprocessing Data and Creating Labels and Features using TensorFlow |
| 9 | **04-05-2024**  (Saturday) | Building and Training LSTM Neural Network and displaying Model Summary |
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| 10 | Week\_3 | **06-05-2024**  (Monday) | Making Predictions through Builded LSTM Model. |
| 11 | **07-05-2024**  (Tuesday) | Saving actions with appropriate weights and Loading them into the model. |
| 12 | **08-05-2024**  (Wednesday) | Assessing the model's performance involves constructing a confusion matrix and calculating the accuracy score by comparing predicted and actual results. |
| 13 | **09-05-2024**  (Thursday) | Deploying the created model with Flask to show the results |
| 14 | **10-05-2024**  (Friday) | Test the model in Real Time by feeding different types of actions or sign gestures and correct any errors if encountered |
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