Plan

 What is written here is the overall plan for the part that the team is responsible for. Since this team aims to only complete the software part of this project, it is needed to work with the hardware team to receive data related to joint motion. Apart from the cooperation, this software team has to perform data cleaning, data modeling and data analysis, after which a website is needed to visualize such processed data. Herein, the task will be divided into four parts:

1. The website construction in early stage
2. The interface construction to receive data from the hardware team
3. The visual display of data on the website
4. The Final deployment of the website

And the sprints will be planned accordingly, which is shown in following.

Sprint 1

This stage is to complete all preparatory work before project development, and the team needs to have a comprehensive understanding of the project, which is beneficial to accurately describe the client's needs, so as to summarize the solution scope. Also, the product owner, scrum master and developers need to be determined in this sprint. To ensure sprint 2 can start smoothly, the team also needs to determine the development framework of the website, such as WordPress, docsify, GitBook, VuePress, Hugo, Octopress, and Solo. After that, the team needs to design and analyze user stories by constructing three distinct personas, ranging from researchers to coaches, while more specific content also needs to go through group discussions.

Sprint 2

In this stage, the website can be launched as soon as possible to ensure that users can register and log in, so that ones who have successfully logged in can upload the data obtained from the hardware and lay the foundation for the data visualization in sprint 3. The first is to limit the web page content that users who are not logged in can see, and the second is to implement the administrator's review of user registration, that is, if the review fails, the user will fail to register and cannot log in successfully. After the user submits the registration application, the status of waiting for review will be displayed, and their access rights are the same as those of unregistered users. After the administrator passes the user's registration application, the user can log in to the website to upload or view the existing visual data and raw data on the website. In summary, this sprint is to complete all the preliminary preparations for data visualization implemented in sprint 3.

Sprint 3

This stage is mainly to visualize the data uploaded by the user, that is, the data transmitted by the hardware group. Specifically, since this project mainly studies joint motion, it is necessary to construct 3D images and animations, satisfying requirements of different personas constructed in sprint 1. More importantly, the 3D animation should allow users to observe the motion trajectories of the joints from different angles, so that users can conduct different levels of artificial intelligence modeling through such visualised data. It is undeniable that how to correctly implement the interface to receive data transmitted by the hardware group is still very challenging, because ensuring that the data can be transmitted and processed in real time will make the project much more applicable. In addition to this, it is also important to display these realistic visualizations on the website and allow users to browse the page comfortably. In short, this website can be deployed on the server and will be open to users after this sprint.

Sprint 4

Since the final presentation is basically completed, this stage is mainly to further test the website and fix bugs that may appear during the operation. In addition, since a large number of three-dimensional dynamic images are involved on the webpages, the development team needs to further optimize the browsing speed of the webpage to reduce unnecessary stuttering. After that, all finishing work needs to be done, including creating a comprehensive document explaining how to access the website resources, publishing an organized release to the customer on Github, making the final presentation slides, and presenting all details during project development.