## **Brainstorming**

### Chaitanya

Identify specific powerlifting metrics that you are interested in predicting, such as squat 1RM, bench press 1RM, or deadlift 1RM.

Research existing machine learning and data science studies that have been conducted on powerlifting data.

Clean and prepare the powerlifting data by removing outliers, missing values, and scaling the data.

Experiment with different machine learning algorithms to find the one that performs best on your data.

Explore different ways to represent the powerlifting data as features for your machine learning model. Consider using transfer learning to improve the performance of your machine learning model.

Tune the hyperparameters of your machine learning algorithm to improve its performance.

Use cross-validation to evaluate the performance of your machine learning model.

#### Rishita

Evaluate the performance of your machine learning model on a held-out test set

Deploy the model to production so that it can be used to predict powerlifting metrics for new data. **Pratyush** 

Anreen

Communicate the results of your machine learning project to your team and stakeholders.
This may involve writing a report, giving a presentation, or creating a dashboard.

Use our machine learning model to develop a machine learning-powered interface using flask.

Monitor the performance of the model over time and retrain or update the model as needed.

Consider using ensemble learning to improve the performance of your machine learning model. Share your findings and insights with the powerlifting community through blog posts, social media, or presentations at conferences.

Explore the ethical implications of machine learning in powerlifting.

## **Grouping Ideas**

# Data Collection and Preparation

Gather relevant data on powerlifters

Clean and prepare the data by removing outliers, missing values, and scaling the data

### **Model Development and Evaluation**

Identify specific powerlifting metrics to predict

Research existing machine learning and data science studies on powerlifting data

Tune the hyperparameters of the machine learning algorithm Use crossvalidation to evaluate the performance of the machine learning mode

# Model Deployment and Monitoring

Deploy the model to production

Monitor the performance of the model over time

Retrain or update the model as needed

#### **Communication and Collaboration**

Communicate the results of the machine learning project to the team and stakeholders

Collaborate with other team members

Engage with the powerlifting community Share findings and insights through blog posts, social media, or presentations