**Model Development Phase Template**

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| Date | 15 June 2024 |
| Team ID | 739820 |
| Project Title | Predicting the unpredictable: A Look into the World of Powerlifting. |
| Maximum Marks | 5 Marks |

**Feature Selection Report Template**

In the forthcoming update, each feature will be accompanied by a brief description. Users will indicate whether it's selected or not, providing reasoning for their decision. This process will streamline decision-making and enhance transparency in feature selection.

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| **Feature** | **Description** | **Selected(Yes/No)** | **Reasoning** |
| Lifter\_id | Unique identifier for each lifter | No | For predicting performance, a lifter id is not required. |
| Gender | Lifter's gender | Yes | Relevant for analyzing performance differences by gender. |
| Age | Lifter's age | Yes | Age can influence strength and performance. |
| Weight\_Class | Lifter's weight class | Yes | Weight class is crucial for comparing performance |

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| Training\_Hours\_Per\_Week | Average training hours per week | Yes | Training intensity impacts performance. |
| Years\_Experience | Number of years of lifting experience | Yes | Experience level affects skill and performance. |
| Squat\_Max | Maximum squat weight lifted | Yes | Key performance metric in powerlifting. |
| Bench\_Press\_Max | Maximum bench press weight lifted | Yes | Key performance metric in powerlifting. |
| Deadlift\_Max | Maximum deadlift weight lifted | Yes | Key performance metric in powerlifting. |
| Competition\_Experience | Number of competitions participated in | Yes | Competition experience can affect performance under pressure. |
| Nutrition\_plan | Whether the lifter follows a structured nutrition plan | Yes | Nutrition impacts strength and recovery. |
| Injury\_History | History of any major injuries | Yes | Injury history can affect current and future performance. |