Milestone 1: Requirements Analysis and Module Design

Time: Week 1
Objectives:
Clarify the functional and technical requirements of the Analysis module.
Design the module's architecture and interfaces.

Deliverables:
Requirements Document.
Technical Design Document.
Database Design (if needed).

Milestone 2: Data Reception and Preprocessing

Time: Week 1 Week 2
Objectives:
Implement the functionality to receive data from the Data module.
Format and validate the received data.

Deliverables:
Data Reception Interface.
Data Preprocessing Code.
Unit Tests.

Milestone 3: Rehabilitation Status Analysis

Time: Week 2 Week 3
Objectives:
Implement rehabilitation status analysis functionality.
Compare current movement status with rehabilitation standards.

Deliverables:
Rehabilitation Status Analysis Algorithm.
Rehabilitation Effectiveness Evaluation Logic.
Unit Tests.

Milestone 4: Trend Prediction

Time: Week 3 Week 4
Objectives:
Implement rehabilitation trend prediction functionality.
Use machine learning algorithms to predict future trends.

Deliverables:

Trend Prediction Algorithm.
Prediction Result Interface.
Unit Tests.

Milestone 5: Rehabilitation Training Recommendations

Time: Week 4 Week 5
Objectives:
Implement rehabilitation training recommendation functionality.

Deliverables:
Rehabilitation Training Recommendation Algorithm.
Training Plan Library.
Recommendation Result Interface.
Unit Tests.

Milestone 6: Data Analysis and Visualization Support

Time: Week 5 Week 6
Objectives:
Provide data analysis results support for the UI module.
Implement data interfaces for the UI module.

Deliverables:
Data Interface.
Data Formatting Tool.
Unit Tests.

Milestone 7: Data Storage and Caching

Time: Week 6
Objectives:
Implement storage and caching functionalities for analysis results.

Deliverables:
Data Storage Functionality.
Caching Functionality.
Unit Tests.

Milestone 8: Anomaly Detection and Handling

Time: Week 6 Week 7
Objectives:
Implement anomaly detection and handling functionality.

Deliverables:
Anomaly Detection Algorithm.
Anomaly Handling Mechanism.
Unit Tests.

Milestone 9: Performance Optimization

Time: Week 7
Objectives:
Optimize the performance of analysis algorithms.

Deliverables:
Performance Optimization Code.
Performance Monitoring Tools.
Performance Test Report.

Milestone 10: Integration Testing and Delivery

Time: Week 7
Objectives:
Conduct integration testing and deliver the final module.

Deliverables:
Integration Test Report.
Final Delivery Version.

Summary of Timeline:

Week 1: Milestone 1 (Requirements Analysis and Module Design) and start of Milestone 2 (Data Reception and Preprocessing).
Week 2: Completion of Milestone 2 and start of Milestone 3 (Rehabilitation Status Analysis).
Week 3: Completion of Milestone 3 and start of Milestone 4 (Trend Prediction).
Week 4: Completion of Milestone 4 and start of Milestone 5 (Rehabilitation Training Recommendations).
Week 5: Completion of Milestone 5 and start of Milestone 6 (Data Analysis and Visualization Support).
Week 6: Completion of Milestone 6, Milestone 7 (Data Storage and Caching), and start of Milestone 8 (Anomaly Detection and Handling).
Week 7: Completion of Milestone 8, Milestone 9 (Performance Optimization), and Milestone 10 (Integration Testing and Delivery).