Rubric for Task 2: Recommender System (65 Marks)

Criterion 1: Technical Implementation of Data Analysis (45%)

- **Outstanding (90-100%)**
  Solutions are fully functional, efficient, and demonstrate outstanding use of Spark/Databricks features. The dataset is correctly loaded, processed, and explored with insightful visualisations. The recommender system is well-implemented with multiple runs and hyperparameter tuning. Code is clean, well-documented, and reflects a deep understanding of Big Data principles. Assumptions are verified and clearly explained.
- **Excellent (80-89%)**
  Solutions are functional, efficient, and appropriately use Spark/Databricks features. The dataset is properly processed and analysed. The recommender system includes systematic experimentation with parameters. Code is well-structured and mostly well-documented. Assumptions are verified and explained, with minor gaps.
- **Very Good (70-79%)**
  Solutions are functional and use appropriate Spark/Databricks features, though not optimally. The recommender system is implemented with standard parameters. Code is functional but could use minor improvements in structure or documentation. Assumptions are mostly verified and explained.
- **Good (60-69%)**
  Solutions are mostly functional but may contain inefficiencies or minor errors. The recommender system is implemented but lacks experimentation with different approaches. Code is somewhat clear, with some areas needing better structure or documentation. Assumptions are partially verified and explained.
- **Satisfactory (50-59%)**
  Solutions show effort but may contain significant inefficiencies, errors, or incomplete implementations. Code is functional but poorly structured or documented. Assumptions are stated but not well-verified.
- **Needs Improvement (40-49%)**

Solutions are incomplete or mostly incorrect, showing a lack of understanding of Spark/Databricks. Code is poorly written, with minimal effort to explain or verify assumptions.

- **Needs Significant Revision (30-39%)**
  Solutions fail to demonstrate basic functionality or understanding of Big Data tools. Code is unstructured, undocumented, and assumptions are not addressed.
- **Needs Substantial Work (0-29%)**
  Solutions are missing or entirely incorrect. Code is absent or non-functional, with no attempt to address assumptions.

Criterion 2: Explanation of Implementation and Results (30%)

- **Outstanding (90-100%)**
  Clear, concise, and comprehensive explanation of the implementation, with strong justification for methods used. Results are accurately stated and well-connected to the implementation, demonstrating a clear understanding of their significance.
- **Excellent (80-89%)**
  Clear and thorough explanation of the implementation and results, with good justification for methods. Minor gaps in detail.
- **Very Good (70-79%)**
  Explanation is clear but not as detailed. Justification for methods is provided but lacks depth in some areas.
- **Good (60-69%)**
  Explanation is adequate but lacks clarity or detail in parts. Results are stated but not always well-connected to the implementation.
- **Satisfactory (50-59%)**
  Explanation is basic and lacks depth. Justification for methods is minimal or absent. Results are stated but may not be clearly connected to the implementation.
- **Needs Improvement (40-49%)**

Explanation is unclear, incomplete, or contains errors. Justification is weak, and results are not well-connected to the implementation.

- **Needs Significant Revision (30-39%)**
  Explanation is mostly missing or incorrect. Justification for methods is absent, and results are unclear or incorrect.
- **Needs Substantial Work (0-29%)**
  Explanation is absent. Results are missing or unrelated to the implementation.

Criterion 3: Experimentation and Evaluation (20%)

- **Outstanding (90-100%)**
  Multiple runs conducted with different hyperparameters. Experimentation is tracked using MLflow. Evaluation metrics are appropriately chosen, interpreted, and compared across different runs.
- **Excellent (80-89%)**
  Multiple runs conducted with some hyperparameter tuning. Experimentation is tracked using MLflow. Evaluation metrics are clearly stated and compared.
- **Very Good (70-79%)**
  Some experimentation with different settings, but tracking is incomplete. Evaluation metrics are provided but lack interpretation.
- **Good (60-69%)**
  Limited experimentation with minimal tracking. Evaluation is basic and does not compare multiple approaches.
- **Satisfactory (50-59%)**
  Minimal experimentation with poor tracking. Evaluation metrics are simplistic.
- **Needs Improvement (40-49%)**
  Experimentation is largely missing. Evaluation is weak and lacks justification.
- **Needs Significant Revision (30-39%)**
  No meaningful experimentation. Evaluation is incorrect or missing.
- **Needs Substantial Work (0-29%)**
  No experimentation or evaluation.

Criterion 4: Presentation of Submission (5%)

- **Outstanding (90-100%)**
  Submission is professional, well-structured, and adheres to all guidelines.
- **Excellent (80-89%)**
  Submission is professional and mostly adheres to guidelines. Minor issues with structure or organisation.
- **Very Good (70-79%)**
  Submission meets guidelines but could be better structured or clarified.
- **Good (60-69%)**
  Submission meets most guidelines but has noticeable issues with clarity or organisation.
- **Satisfactory (50-59%)**
  Submission meets basic requirements but lacks polish.
- **Needs Improvement (40-49%)**
  Submission is incomplete or poorly organised.
- **Needs Significant Revision (30-39%)**
  Submission fails to meet key guidelines.
- **Needs Substantial Work (0-29%)**
  Submission is missing or entirely non-compliant with guidelines.