

# Software Requirements Specification (SRS)

## AI Music Recommender System

### Snapshot 2 - Mood-Based Recommendations

Project Group 5

December 7, 2025

## Version Description

| Version | Description                                                                                        | Date             |
|---------|----------------------------------------------------------------------------------------------------|------------------|
| 2.0     | SRS updated for Snapshot 2. Adds mood-based recommendation feature and corresponding requirements. | December 7, 2025 |

## 1 Introduction

### 1.1 Purpose

This SRS extends Snapshot 1 by specifying requirements for mood-based recommendations, allowing users to select a mood and receive playlists tailored to that mood using predefined or learned song features.[web:16][web:18]

### 1.2 Scope

Snapshot 2 adds mood selection to the UI, mood-aware recommendation logic, and storage of user mood choices, while preserving all Snapshot 1 functionality.

### 1.3 Intended Audience

The audience includes the course instructor, teaching assistants, and project team members implementing and testing the mood-based feature.

## 2 New and Updated Requirements

### 2.1 User Interface Extensions

- FR-M1: The system shall provide a mood selector on the home screen (e.g., Happy, Chill, Focus, Energetic).
- FR-M2: The system shall display a “Mood Playlist” section showing songs tailored to the selected mood.

### 2.2 Mood-Based Recommendation

- FR-M3: The system shall allow a user to change the current mood at any time from the home screen.
- FR-M4: When the user selects a mood, the system shall generate a playlist of songs associated with that mood using stored mood features or tags.[web:13][web:18]
- FR-M5: The system shall use both mood and the user’s interaction history when ordering songs in the mood playlist.

### 2.3 Interaction and Data Storage

- FR-M6: The system shall store the user’s most recent mood selections for future recommendation tuning.
- FR-M7: The system shall log plays, likes, and skips that occur while a mood is active, including the active mood label.

### 2.4 Search and Navigation

- FR-M8: The user shall be able to navigate between the regular recommendation list and the mood playlist.
- FR-M9: The user shall still be able to use search independent of mood selection.

## 3 Non-Functional Requirements (Snapshot 2)

### 3.1 Performance

- NFR-M1: Updating the mood playlist after changing the selected mood should complete within a few seconds under normal conditions.

### 3.2 Usability

- NFR-M2: The mood selector shall be clearly visible and easy to understand (e.g., labeled buttons or icons).

## 4 Legal and Ethical Considerations

Mood data is treated like other interaction data and is used only to personalize recommendations, following the same privacy principles defined for Snapshot 1 and informing users that mood selections are stored for personalization.[web:16]