# Mood Tracking Application

## Presentation Outline

## Introduction

* **Project Overview**: A comprehensive mood tracking application built with React
* **Purpose**: Help users track, visualize, and analyze their mood patterns
* **Target Users**: Individuals interested in mental health self-monitoring
* **Key Features**:
  + Daily mood logging
  + Mood visualization
  + Analytics and insights
  + Personalization options

## Existing System

* **Current Solutions**:
  + Paper-based mood journals
  + Simple mood tracking apps with limited features
  + Clinical tools with high complexity
* **Limitations**:
  + Limited visualization options
  + Lack of personalization
  + Poor user experience
  + Minimal insights from tracked data
  + No correlation analysis with external factors

## Problem Statement

* **Mental Health Awareness**: Growing need for accessible mental health tools
* **Self-Monitoring Challenges**: Difficulty maintaining consistent mood tracking
* **Data Accessibility**: Need for easy-to-understand mood patterns
* **User Engagement**: Traditional tracking methods lack engaging features
* **Personalization**: One-size-fits-all approaches don’t address individual needs
* **Privacy Concerns**: Sensitive data requires secure handling

## Proposed System

* **Modern Web Application**: Built with React and TypeScript
* **Comprehensive Tracking**: Multiple moods, notes, and contextual factors
* **Intuitive Interface**: User-friendly design for daily use
* **Advanced Analytics**: Visual representation of mood patterns
* **Personalization**: Customizable themes and tracking options
* **Data Security**: Local storage with export capabilities
* **Responsive Design**: Works on multiple devices and screen sizes

## System Requirements

### Functional Requirements:

* User authentication and profile management
* Mood logging with multiple metrics
* Visualization of mood data
* Historical data browsing
* Analytics and insights generation
* Data export functionality
* Theme customization

### Non-Functional Requirements:

* Responsive and intuitive user interface
* Performance and load time optimization
* Data privacy and security
* Offline functionality
* Scalability and maintainability

## Diagrams

### Application Architecture:

* React frontend with TypeScript
* Context API for state management
* Component-based structure
* Local storage for data persistence

### Data Flow:

* User inputs mood data
* Application stores in local storage
* Data processed for visualization
* Analytics generated from historical data

### User Flow:

* Login/Register
* Dashboard overview
* Log mood entry
* View historical data
* Access analytics and insights
* Customize settings

## Database Table

### Main Data Structures:

* **MoodEntry**:
  + id: string
  + date: string (ISO format)
  + timeOfDay: ‘morning’ | ‘afternoon’ | ‘evening’ | ‘night’ | ‘full-day’
  + mood: ‘Very Bad’ | ‘Bad’ | ‘Okay’ | ‘Good’ | ‘Very Good’
  + notes: string
  + weather: {temperature, condition, humidity}
* **User**:
  + id: string
  + username: string
  + email: string
  + settings: UserSettings
  + badges: Badge[]
* **UserSettings**:
  + theme: ThemeType
  + enableWeatherTracking: boolean
  + enablePredictions: boolean

## User Interaction

### Key Interfaces:

* **Dashboard**: Overview of recent moods and quick access to features
* **Mood Logger**: Interface for recording new mood entries
* **Mood Calendar**: Calendar view of mood entries over time
* **Analytics**: Charts and visualizations of mood patterns
* **Settings**: Customization options for the application

### User Experience:

* Intuitive navigation with floating action buttons
* Visual feedback through color-coding
* Responsive design for all device sizes
* Seamless transitions between different views

## Conclusion

* **Summary**: A comprehensive mood tracking application with powerful features
* **Benefits**:
  + Enhanced self-awareness through consistent mood tracking
  + Visual insights into personal mood patterns
  + Correlation discovery between moods and external factors
  + Personalized experience through customization options
* **Future Enhancements**:
  + Machine learning for predictive insights
  + Social sharing options
  + Integration with wearable devices
  + Advanced journaling features

## References

* React Documentation: https://reactjs.org
* Material-UI: https://mui.com
* Recharts: https://recharts.org
* Date-fns: https://date-fns.org
* Research: “Understanding People’s Use of and Perspectives on Mood-Tracking Apps”
* Modern UI/UX Design Principles for Health Applications