Project Proposal :

Title: Time Guard – A Phone Addiction Reduction System

1. Introduction :

The **Time Guard** project is a Java-based application designed to help users reduce phone addiction and improve time management. It provides an interactive user interface where users can set daily usage limits, monitor their activity, and receive reminders when they exceed those limits. Beyond restrictions, the system will also provide suggestions such as reading, exercising, studying, or offline activities when excessive usage is detected. All data (user profiles, usage history, and suggestions) will be stored in a database (MySQL/ SQLite). Secure user authentication (sign-up, login, and OTP verification for bonus) ensures personalized and safe access.

2. Motivation :

Phone addiction has become one of the most pressing issues in modern life. Overuse of smartphones negatively affects physical health, mental focus, and productivity. While some platforms provide digital wellbeing tools, they often lack personalized advice and motivational guidance. The Time Guard project is motivated by the need for a practical, customizable, and user-friendly solution that not only monitors and restricts phone usage but also encourages healthy alternatives through smart suggestions.

3. Objectives :

The main objectives of Time Guard are:

1. To design an interactive interface for monitoring and controlling phone usage.

2. To implement secure authentication (sign-up, login, OTP verification).

3. To store and analyze user activity data in a relational database (MySQL/SQLite).

4. To provide real-time alerts and warnings when daily limits are exceeded.

5. To generate personalized suggestions (study, exercise, social interaction, relaxation) to replace excess phone usage.

6. To demonstrate maximum Object-Oriented Programming concepts (encapsulation, inheritance, abstraction, polymorphism) in the project design.

4. Expected Outcome :

The expected outcome of this project is a fully functional Java application that:

- Provides secure login and authentication.

- Monitors and logs app usage and screen time in a database.

- Sends reminders and warnings before exceeding daily usage limits.

- Suggests productive or healthy alternatives when the user crosses limits.

- Helps reduce phone addiction and promotes better time management.

- Demonstrates extensive use of OOP concepts.

By combining restriction with motivational suggestions, the Time Guard will act as both a digital monitor and a personal assistant for healthier digital habits.