

## **Product Requirements Document (PRD)**

**Product Name:** Personal Work-Time Activity Analytics System

**Status:** Draft

### **1. Purpose & Vision**

Provide personalized insights into physical activity by distinguishing activity during working hours and outside working hours, enabling fair day-to-day comparison beyond Samsung Health limitations.

### **2. Goals**

- Ingest Galaxy Watch activity data via Health Connect
- Classify activity into Working Hours vs Off Hours
- Compare today with the most recent comparable day

### **3. Target User**

Single user, Samsung ecosystem, interested in self-optimization and data ownership.

### **4. Core Features**

- Activity ingestion
- Working schedule configuration
- Session splitting across work boundaries
- Daily comparison and trend reporting

### **5. Technical Stack**

Backend: Java Spring Boot

Database: PostgreSQL

API: REST (JSON)

### **6. Data Models**

ActivitySession (raw), ActivitySegment (derived), WorkingSchedule.

### **7. Key Logic**

- Overlap calculation
- Proportional metric allocation

- Skip-day comparison logic

## **8. Out of Scope**

- Raw sensor data
- Medical diagnosis
- Multi-user support

## **9. Future Enhancements**

Weekly reports, PDF export, ML scoring, web dashboard.