**Title**: Predictive Modeling of Cardiovascular Health Outcomes using Photoplethysmogram Data Processing and Integration

**General context**: Factors of everyday life affect a person’s health greatly, such as sleep, physical activity, stress etc. However, health problems are usually only addressed in the hospital. This approach is highly inefficient, since hospital care only addresses the effects and not the causes of illnesses. Many diseases are usually only detected in their later stages when patients start having serious symptoms. Cardiovascular diseases are a leading cause of death worldwide, and early detection of them significantly improves the chances of successful treatment and survival. With the rapid advancements in technology, wearable sensors have emerged as a promising tool for real-time, non-invasive monitoring of physiological and behavioral data. These devices offer the potential for early detection and prediction of cardiovascular diseases, providing valuable information for timely intervention and improved patient outcomes.

**Problem**:

**Research questions**:

**Objectives:**

**Tasks:**