




INF 551 – Project Proposal

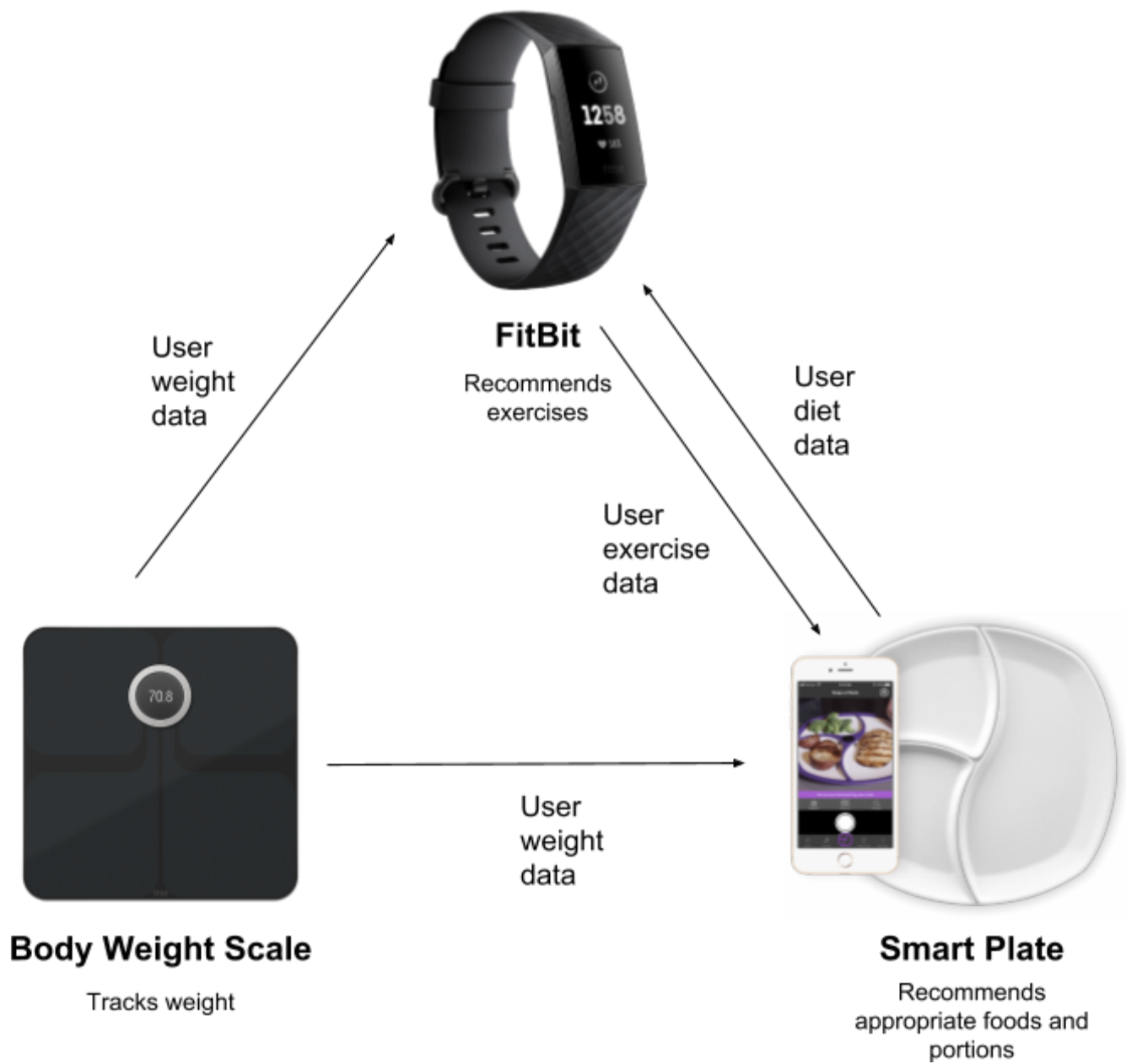
Sandeep Gundla
Oluwaseun Deleawe
January 28, 2019

IoT Theme: Smart Health – Personal Fitness

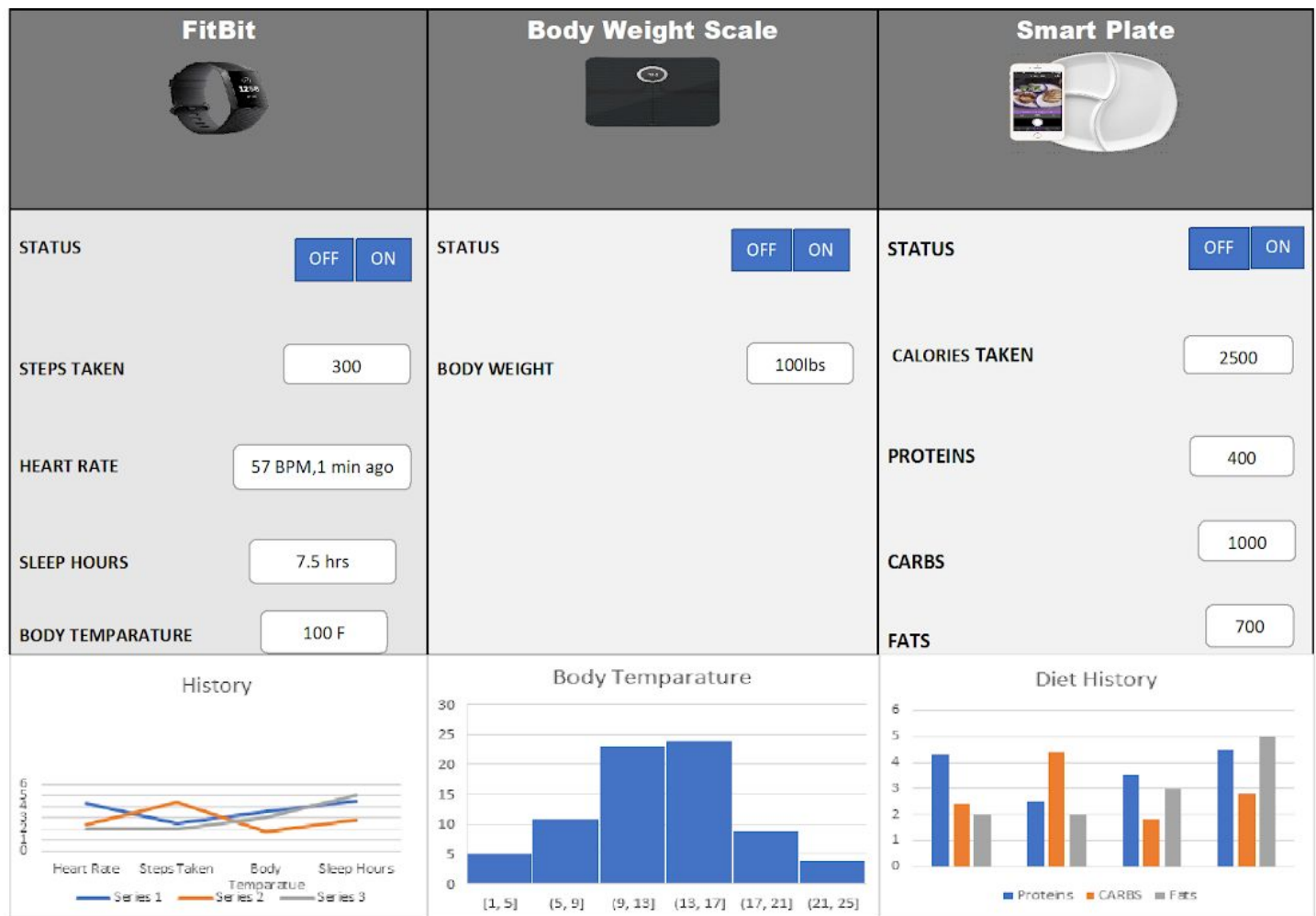
The three IoT devices below are designed to help the user actively monitor their health and stay fit.

IoT Device	Function	Data Collected	Command Sent
 FitBit	Tracks exercise and health	<ul style="list-style-type: none">• Steps taken• Heart rate• Sleep duration• Body temperature	<ul style="list-style-type: none">• Switch on/off• Reset step count• Disconnect
 Body Weight Scale	Tracks body weight	<ul style="list-style-type: none">• Weight	<ul style="list-style-type: none">• Switch on/off
 Smart Plate	Tracks diet	<ul style="list-style-type: none">• Food categories (carbs, protein, fat)• Calories count	<ul style="list-style-type: none">• Switch on/off

Architecture and Design



Control Panel



Backend Stack

DataBase: Google's FireBase Real time Database or MongoDB.

Server-side Languages : PHP and/or Python.

Group Formation

Group Member	Responsibility
Sandeep Gundla	<ul style="list-style-type: none"> • Design Control Panel, Communications between Cloud and Web clients • Provision database in the cloud • Backend web development
Oluwaseun Deleawe	<ul style="list-style-type: none"> • IoT device architecture and design • IoT device interaction design

	• Frontend web development
--	----------------------------

Our group is equipped to implement the application by the end of the semester.

Milestones

Date	Milestone
Jan 28	Complete Proposal
Feb 18	Setup Control Panel frontend and backend prototype
Feb 25	Complete Control Panel frontend
Mar 25	Complete Midterm Report
Apr 13	Complete Control Panel backend
Apr 15	Run full app demo
Apr 22	Complete Final Report