TAPWATER

SOFTWARE SYSTEM DESIGN

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I. INTRODUCTION

1.1 Purpose

This software design document describes the architecture and system design of TapWater.

1.2 Overview

The following document is organized into several sections: main system architecture, sub-systems architecture, rationale for each architectural choice, development view, physical view, data view, work-assignment view, element catalog, and user interfaces.

II. MAIN SYSTEM ARCHITECTURE

TapWater’s main system runs on a client-server architecture. The clients are the iOS and Android applications, which both communicate through a Heroku server. Heroku provides data access across both clients and maintains data integrity.

III. SUB-SYSTEMS ARCHITECTURE

TapWater’s iOS and Android applications run on an object-oriented architecture.

IV. RATIONALE

TapWater’s main system architecture is a client-server type architecture. The mobile applications send and request TapWater drink data from the Heroku server. A unique ID is assigned to each drink to keep track of synchronization integrity.

V. DEVELOPMENTAL VIEW

VI. PHYSICAL VIEW

VII. DATA VIEW

VIII. WORK-ASSIGNMENT VIEW

IX. ELEMENT CATALOG  
  
X. USER INTERFACES