Software Quality Assurance Plan (SQAP)

#### Version 0.1.1

**Weight Tracker APP**

**Prepared By**: KGS.Inc

**Prepared For**: Health-R-Us

**Approved by**: Brother Scott Wood

**Authors**: Kaleb Schauerhamer, Gilber Chen, Sunny Yeung

**Approval Signature**:

# Revision History

V0.1.0 - 10/07/2024 - Document create

* Created Title page
* Created the revision history page
* Created the table of contents page
* Created the table of figures page
* Created the SQAP section outline based on an outline
* Filled out section 1- Purpose and scope
* Filled out section 2 - Definition and acronyms
* Filled out section 3 - Reference documents

V0.1.1 - 10/16/2024

* Added input the notes for the Revision history
* Added approval signature section
* The Table of contents was redone and links to the sections were added
* The SQAP section outline was reworked to reflect the table of contents
* Removed empty references from the table of figures
* The scope in Section 1 - Purpose and Scope was expanded upon
* The purpose of Section 1 was written to be from the perspective from quality management
* Section 3 - Reference Documents had more documents added with links

# Table of Contents

1. [Purpose and scope](#_96c97vva9g1r)
2. [Definition and acronyms](#_14lc66mk62ea)
3. [Reference documents](#_664lxuoe15ef)
4. [SQA plan overview](#_ysq4t9q4kkk4)
   1. Organization and independence
   2. Software product risk
   3. Tools
   4. Standards, practices, and conventions
   5. Effort, resources, and schedule
5. [Activities, outcomes, and tasks](#_tde03bdacvgv)
   1. Product Assurance
      1. Evaluate plans for conformance
      2. Evaluate product for conformance
      3. Evaluate product for acceptability
      4. Evaluate product life cycle support for conformance
      5. Measure products
   2. Process assurance
      1. Evaluate life cycle processes for conformance
      2. Evaluate environments for conformance
      3. Evaluate subcontractor processes for conformance
      4. Measure processes
      5. Assess staff skills and knowledge
6. [Additional considerations](#_khta6l6gmlee)
   1. Contract review
   2. Quality measurement
   3. Waivers and deviations
   4. Task repetition
   5. Risks to performing SQA
   6. Communications strategy
   7. Non-conformance process
7. [SQArecords](#_1j6714lc8ydw) 
   1. Analyze, identify, collect, file, maintain and dispose
   2. Availability of records

# Table of Figures

| Figure Number | Description | Page |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

### **1. Purpose and Scope**

* The purpose of this SQAP is to document the SQA approach that the application development team of KGS.Inc will follow. The SQA activities planned in this document align with our sponsors, stakeholders, and clients, as documented in the Health-R-Us Weight Tracker APP Development Contract. This includes all software developed within the allotted budget as the Health-R-Us Weight Tracker APP Development Contract dictates. These include audits on the project’s progress and processes to ensure the security and reliability of the project’s product. The SQA team will need to employ user tests, select the auditing organization, and test the security and integrity of the application’s code. The SQA will also address the concerns and action points listed in the Health-R-Us Weight Tracker Risk Assessment Document.
* The scope of this project, according to the Health-R-Us Weight Tracker CONOPS, KGS.Inc. will develop and maintain the Weight Tracker mobile application software for IOS and Android platforms. The Weight Tracker mobile application will then become a product of KGS.Inc. This is to expand the KGS.Inc. company to compete with Apple’s health tracking app software. This means that there is a large emphasis being placed on user satisfaction and convenience.

### **2. Definitions and Acronyms**

* SQAP - Software Quality Assurance Plan: The Software Quality Assurance Plan is a document that outlines the necessary processes, procedures, and activities to ensure the quality of software during the development life cycle. It summarizes the responsibilities, standards, and methods for providing the software that meets its specified requirements and performs as expected. The SQAP supports this systematic approach to quality management, guaranteeing that software is being developed and tested and, later on, maintained in conformance with internal and external standards such as the IEEE 730-2014 standard.
* SQA - Software Quality Assurance: Software quality assurance is a well-organized process ensuring the software meets the specified quality standards and requirements. It's a set of activities, including process monitoring, auditing, and testing, carried out during a software development lifecycle, ensuring that software processes and products are reliable, efficient, and adhere to the customer's expectations. SQA focuses on defect prevention by improving development practices and checking conformance to standards, such as IEEE 730-2014. It also allows assurance of the product, which verifies that the final software product is in conformance with its functional and non-functional requirements.
* CONOPS - Concept of Operations: CONOPS refers to a document providing a high-level, general vision of the system or project from the user's perspective. It details how the system will work, its purpose or objectives, its operational scenarios, and its relationship with its users or other systems. The CONOPS document shall define what functionality and performance are intended from the system to help align stakeholder and developer expectations in guiding the system's design, development, and deployment. It is used in software development to communicate how the software product will be used in real-world scenarios.

### **3. Reference Documents**

* Health-R-Us Weight Tracker APP Development Contract
* Health-R-Us Weight Tracker CONOPS
* Health-R-Us Weight Tracker Risk Assessment Document
* [IEEE Std 730-2014](https://ieeexplore-ieee-org.byui.idm.oclc.org/document/6835311)
* [Acquisition Plan](https://www.dau.edu/cop/Contingency/documents/acquisition-plan-template)
* [App Project Plan](https://www.projectmanager.com/templates/project-plan-template)
* [Document Plan](https://docs.google.com/document/d/1_36bqU83O8WC1fCzxWSNsERpcpsBw3jAyJOt80VVmZ4/edit?usp=sharing)

### **4. SQA plan overview**

1. Organization and independence
2. Software product risk
3. Tools
4. Standards, practices, and conventions
5. Effort, resources, and schedule

### **5. Activities, outcomes, and tasks**

1. Product Assurance
   1. Evaluate plans for conformance
   2. Evaluate product for conformance
   3. Evaluate product for acceptability
   4. Evaluate product life cycle support for conformance
   5. Measure products
2. Process assurance
   1. Evaluate life cycle processes for conformance
   2. Evaluate environments for conformance
   3. Evaluate subcontractor processes for conformance
   4. Measure processes
   5. Assess staff skills and knowledge

### **6. Additional considerations**

1. Contract review
2. Quality measurement
3. Waivers and deviations
4. Task repetition
5. Risks to performing SQA
6. Communications strategy
7. Non-conformance process

### **7. SQArecords**

1. Analyze, identify, collect, file, maintain and dispose
2. Availability of records

# 