Software Requirements Specification

for

Auditor-Controller

Version 1.0 approved

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LA County Dept. Auditor Controller

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## Revision History

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1. Introduction

1.1 Purpose

The purpose of this document is to identify the software requirements for the financial dashboard. The financial dashboard is comprised of data gathered from LA County contracts intended for LA County executives enterprise wide in efforts to display contract data per requirements.

1.2 Document Conventions

LA - Los Angeles
KPI - Key Performance Indicator

1.3 Intended Audience and Reading Suggestions

The intended audiences would be users, developers, and testers.

1. Users can refer to the following sections:
   a. Section 1
      i. Product Scope
   b. Section 2
      i. Overall Description of product in plain English
   c. Section 3
      i. Interface information

2. Developers and testers may refer to:
   a. Section 2
      i. Overall Description of product in plain English
      ii. Database information
   b. Section 4
      i. Functional Requirements

1.4 Product Scope

“The Auditor-Controller has access to a wealth of financial and payroll data that has tremendous analytical value. This project uses data science to analyze and model the data in a data lake using a variety of analytical tools (Power BI, SAS, Tableau and HADOOP) to provide predictive insight into the financial opportunities and cost savings the county could realize. The project goals would be to provide dashboards that allow executive managers to make critical decisions of the County. The student(s) assigned to this project would benefit from working with a team of business users and IT experts. The students would work with subject matter experts to gather user requirements, mockup design proposals, present proposals to key stakeholders, and work with subject matter experts on the project.” (Auditor Controller – Data Science and Analytics)
1.5 References

- Auditor Controller – Data Science and Analytics
  - Code: 1168

2. Overall Description

2.1 Product Perspective

The product will be a dashboard based on LA County’s contract data. The product is tailored to giving a simple and quick visual to the intended users. Future versions of this product may be implemented into LA County’s database to coincide with two other dashboards LA County is producing internally.

2.2 Product Functions

The product must allow the user to visualize the following information from LA County contracts:

| Department | Fiscal Year |
| Vendor Name | Period |
| Budget Amount | Start Date of Contract |
| Encumbrance Amount | End Date of Contract |
| Expended Amount | Active Flag |
| Remaining Budget Amount | Department Code |
| Object Code | Report Code |
| Vendor Code | Subreport Code |

Note: The visualizations will be specified in section 4.

2.3 User Classes and Characteristics

2.3.1 LA County Executives

- Low technical expertise
- Highest security clearance
- Main user

2.4 Operating Environment

This application may be accessed in one of two ways, through Power BI Desktop or Power BI website.
2.5 Design and Implementation Constraints

The dashboards will be built using Power BI. This version of the dashboards will not be required to connect to a database. However, the developers must keep in mind during development that future versions will be connected to a database.

2.6 User Documentation


2.7 Assumptions and Dependencies

This product depends on the County’s ability to input clean data to the dashboard. This product is constrained by not having access to the County database.

3. External Interface Requirements

3.1 User Interfaces

The Power BI dashboard is the user interface.

3.2 Hardware Interfaces

Not Applicable.

3.3 Software Interfaces

The product is built on Microsoft Power BI and utilizes Microsoft libraries.

3.4 Communications Interfaces

Products alerts function are connected to Microsoft Outlook.

4. System Features

4.1 Functional Requirements

4.1.1 Current Budget Amount and Actual Expenditure

4.1.1.1 The system should utilize Report Code.
4.1.1.2 The system shall display Current Budget Amount.
4.1.1.3 The system shall display Actual Expenditure Amount.
4.1.1.4 The system shall display Departments.
4.1.1.5 The system shall utilize the Line and Stacked Column Chart visualization.

4.1.2 Active Contract Count

4.1.2.1 The system should utilize Report Code.
4.1.2.2 The system shall display count of Active Flag.
4.1.2.3 The system shall utilize the Gauge visualization.

4.1.3 Current Budget Amount by Department and Vendors

4.1.3.1 The system should utilize Report Code.
4.1.3.2 The system shall display Current Budget Amount.
4.1.3.3 The system shall display Vendor Name.
4.1.3.4 The system shall display Department.
4.1.3.5 The system shall display Actual Expenditure Amount.
4.1.3.6 The system shall display Actual Start Date.
4.1.3.7 The system shall utilize the Tree Map visualization.

4.1.4 Actual Expended vs Current Budget Meter

4.1.4.1 The system should utilize Report Code.
4.1.4.2 The system shall display Current Budget Amount.
4.1.4.3 The system shall display Actual Expended Amount.
4.1.4.4 The system shall utilize the KPI visualization.

4.1.5 Contract Status

4.1.5.1 The system shall display Active Flag.
4.1.5.2 The system shall utilize the Slicer visualization.

4.1.6 Select Department

4.1.6.1 The system shall display Department.
4.1.6.2 The system shall utilize the Slicer visualization.

4.1.7 Remaining Budget and Current Budget Amount by Department

4.1.7.1 The system should utilize Report Code.
4.1.7.2 The system shall display Current Budget Amount.
4.1.7.3 The system shall display Remaining Budget.
4.1.7.4 The system shall utilize the Stacked Column Chart visualization.
4.1.8 Contract End Date Alert

4.1.8.1 The system should display End Date.
4.1.8.2 The system should display Active Flag.
4.1.8.3 The system should utilize Report Code.
4.1.8.4 The system should utilize Microsoft Flow.
4.1.8.5 The system should utilize Alerts.

4.1.9 Encumbrance Amount Alert

4.1.9.1 The system should display Encumbrance Amount.
4.1.9.2 The system should display Fiscal Year.
4.1.9.3 The system should utilize Active Flag.
4.1.9.4 The system should utilize Report Code.
4.1.9.5 The system should utilize Microsoft Flow.
4.1.9.6 The system should utilize Alerts.

4.1.10 Forecast Budget

4.1.10.1 The system should display Current Budget Amount.
4.1.10.2 The system should display Departments.
4.1.10.3 The system should utilize Report Code.
4.1.10.4 The system should utilize Line Chart visualization.
4.1.10.5 The system should utilize Forecast Line.

4.2 External Interface Requirements

Not applicable

4.3 Logical Database Requirements

Not applicable.

4.4 Design Constraints

The product does not have access to the County database. It is limited to manual upload of flat files.
5. **Other Nonfunctional Requirements**

5.1 **Performance Requirements**

Not applicable.

5.2 **Safety Requirements**

Not applicable.

5.3 **Security Requirements**

Not applicable

5.4 **Software Quality Attributes**

This product has a dependency. This product relies on the input of clean data to provide quality visualizations.

5.5 **Business Rules**

Not applicable

6. **Other Requirements**

Not applicable

**Appendix A: Glossary**

LA - Los Angeles
KPI - Key Performance Indicator
Appendix B: Analysis Models

Appendix C: To Be Determined List

Not applicable