P03-T2 Mgmt Sys NP

Development Document

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Professor Perry

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1. Technical Details

The development of the Management System for Georgia Laws of Life was guided by a structured analysis of sponsor needs and an agile, iterative approach to evaluating and configuring Software-as-a-Service (SaaS) platforms. The process can be summarized through the following key concepts and their implementation.

1.1. Problem Analysis & Requirement Gathering

- **Concept:** The core problem identified was the sponsor's reliance on multiple, disconnected spreadsheets to manage stakeholders (students, schools, Rotary clubs, donors, volunteers), leading to operational inefficiency and data inconsistency.
- **Implementation:** The team conducted an initial analysis of sponsor-provided spreadsheets and stakeholder interviews. This informed the creation of a comprehensive Stakeholder Map and Software Requirements Specification (SRS), which clearly defined internal and external stakeholders, their influence, and the functional and non-functional requirements for the solution.

1.2. Platform Evaluation & Selection Methodology

- **Concept:** A critical development task was to identify the most suitable freemium SaaS platform from a shortlist (including Zoho CRM, HubSpot CRM, and Airtable) without any custom software development.

- **Implementation:** The team created a Platform Evaluation Matrix as a subsystem. This was a quantitative framework with weighted criteria:
    - **Cost (30% weight):** Adherence to the $0 budget constraint using freemium tiers.
    - **Google Workspace Integration (25%):** Essential for compatibility with the sponsor's existing workflow.
    - **Entity Relationship Flexibility (20%):** Ability to model complex relationships (e.g., a volunteer who is also a donor and Rotary member).
    - **Ease of Use (15%):** Critical for the non-technical user base.
    - **Feature Set (10%):** Inclusion of desired features like dashboarding and bulk import.

      Each platform was scored (0-5) on these criteria, and the platform with the highest weighted score was selected for the Proof-of-Concept (POC).

Criteria	Weight	Airtable		Zoho CRM		HubSpot CRM	
		Rating	Eval.	Rating	Eval.	Rating	Eval.
		Weighted Score		Weighted Score		Weighted Score	
Cost	30%	5	• 5 users (exceeds need) • Generous record limits	4	• 3 users (meets current needs) • Core CRM features available	5	• Unlimited users • Very robust features set for free
		1.5		1.2		1.5	

Google Workspace Integration	25%	5 1.25	• Native Google Sheets sync • Excellent import/export tools	4 1	• Strong API & integration options • May require more setup	4 1	• Good import/export • Limited free-tier API
Entity Relation Flexibility	20%	5 1	• Highly flexible, database-like • East to create	5 1	• Designed for complex CRM relationships • Native "contacts-accounts" model	4 0.8	• Good relationship modeling • Slightly less flexible than Airtable
Ease of Use	15%	4 0.6	• Intuitive spreadsheet-like interface • Advanced features have a learning curve	2 0.3	• Powerful, yet complex • "business software" feel	5 0.75	• Renowned user-friendly UI • Gentle learning curve
Feature Set	10%	4 0.4	• Strong on dashboards & bulk operations • Reminders possible with setup	5 0.5	• Includes dashboards, automation, reminders (free tier) • Built for business processes	3 0.3	• Basic automation • Some features hidden behind paywalls
Total Weighted Score		4.75		4		4.35	
Ranking		1		3		2	

1.3. Architectural Strategy: Configured SaaS over Custom Build

- **Concept:** The overarching technical strategy was to leverage and configure an existing SaaS platform rather than building a custom application.
- **Implementation:** This strategy was chosen to directly meet the constraints of zero cost and no custom development. It provides an immediately available, supported,

and scalable foundation. The architecture was conceptualized in three logical subsystems:

1. **Platform Evaluation & Selection:** The process for choosing the SaaS tool.
2. **Data Model & Configuration:** The design of data structures within the chosen platform.
3. **Integration & Automation:** The design for data flow between the platform and Google Workspace.

1.4. Data Model Configuration & POC Development

- **Concept:** Transforming the sponsor's spreadsheet-based data into a structured, relational data model within the selected SaaS platform.
- **Implementation:** Within the chosen platform, the team configured modules to represent the sponsor's key entities:
    - **Contacts:** For School Contacts, Rotary Members, Donors, and Volunteers.
    - **Companies/Organizations:** To represent Schools and Rotary Clubs.
    - **Deals/Pipelines:** To manage the essay contest lifecycle (e.g., Submitted, Judged, Won).
    - **Projects/Events:** To track contest cycles and special events.

      A functional Proof-of-Concept (POC) was then built using this configured

data model and populated with simulated data that mirrored the sponsor's real data format but contained no actual human information.

1.5. Integration & Workflow Design

- **Concept:** Designing processes to connect the SaaS platform with the sponsor's Google Workspace environment to facilitate data import/export and demonstrate key workflows.
- **Implementation:** The team designed specifications for integration, which included:
    - Creating standardized Google Sheet templates for bulk data entry into the platform.
    - Documenting manual processes for exporting data from the platform back to Sheets for reporting.
    - If feasible within freemium limits, designing a simple automation (e.g., using the platform's native tools or Zapier) to add a new contact from a Google Form submission.

2. Database Connection

Not applicable.

3. How to Set Project Up – Steps

1. Create an account on HubSpot.com

2. In the home menu navigate to the side bar on the left side of the screen

3. Midway down on the side bar, you should see a section titled Data Management, stay in this menu

4. Click on the tab in Data Management titled Data Integration

5. In the Data Integration menu, we want to click on the option to Import a File. You should see a tab named “Import a File” with a button at the bottom titled “Import Data”. Click on Import Data

6. In the new screen that pull up, click on the black button on the page titled “Start import.” Optionally, if you have completed these instructions before, you can also opt to use the “Repeat a past import” button to redo an import of a previous database.

7. HubSpot should bring you to a new screen titled “What kind of data is in your file?” There are many options for different applications based on the needs of every company. For the purpose of our projects, select the box “Contacts”

8. After selecting the “Contacts” box, you should see at the bottom of the screen the “Next” button lights up. Click on the “Next” button

9. This should bring you to the “Upload your files” menu with many different options. The following are the setting needed to properly set up the project

- On Choose how to import Contacts keep the current option “Create and update Contacts” in the drop-down menu
- In Contact file click “choose a file” and enter either a .csv, .xlsx, or .xls file to download
- Leave the box uncheck under the Same-object associations
- Under Select the language of the column headers in your file, keep “English” as the selected option

10. Click on the “Next” Button to advance to the next screen

11. You should now be in the “Map columns in your file to contact properties” The following options are present:

- Mapping Guide: This will give you an overview of what is needed to import the data into HubSpot based on options provided from step 7. Since we chose contacts, we either need to map one of three required properties which are: Email, First Name, Last Name
- Below is the number of errors that are found. This is provided by HubSpot so that it ensures smooth translation and includes errors such as improper format and missing values. You must resolve these errors to ensure you can import the data.

12. Next is the All-Mapped Status menu. All the rows must have a green check mark under the Mapped column to be able to move to the next screen. The columns are as followed:

- Column Header from File: This is automatically filled in by HubSpot. On your spreadsheet, it contains and reads the list of headers from each column and stores them in this field. To update these, you need to make the change in the original spreadsheet and reupload the sheet into HubSpot
- Preview Information: This is automatically filled in by HubSpot. It matches the Column header with the data from the spreadsheet and allows the user to view the data that will be entered under the fields in HubSpot
- Mapped: This column shows three options. Green means the column is good and ready to be entered. Yellow means there is an error and includes an error option to click on to directly resolve the issues that are at the bottom. Last is blank, which means the column is not mapped, but no errors are present.
- Import As: This section allows the user to exclude any information from HubSpot that they do not feel is necessary. By selecting the option “Don’t import Column” the row is automatically marked as mapped, and the next two options are greyed out.
- HubSpot Property: This is how a user can find the field once it has entered HubSpot. This is the column name that will be found in HubSpot. You can create this in either of the two ways. You can use a preset option that is in HubSpot or create your own property using the “Create new property” to better fit the needs of your column names.

- Manage Existing Values: This is only if you have existing data; you can either check the box if you do not want the new data replacing the old data.

12. Once all rows have been successfully mapped, click the “Next” Button at the bottom right of the screen. This will import the data into HubSpot.

13. Return to the home screen of HubSpot

14. On the left side menu, navigate to the section label “CRM”. Click on the first option in this menu named “Contacts”

15. You should see the data from the spreadsheets entered HubSpot. You can rearrange the columns and add columns as needed from the data you have entered. This is the end of the instructions on how to set up the project so that you can start the HubSpot experience and set it up to create a successful CRM.