**Module 2: Project Proposal**

# Fab Flowers: Proposal for a New Human Resources Information System

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## Executive Summary

Fab Flowers (a flower and gift delivery company) uses a two-fold employee information system to manage employees. A two-fold employee information system is a Human Resources Information System (HRIS) that has a dual purpose. First, to organize and manage employees' information through a Human Resource (HR) system that oversees employee payroll, benefits, and vacation. Secondly, to provide employees with self-service through an Employee Self-Service (ESS) system that enables them to access their personal information, view pay stubs, and request vacations (Paylocity, 2022). Currently, Fab Flowers' two-fold HRIS is implemented through two separate systems, with HR operations performed through its HR department and ESS operations through an employee's portal. Fab Flowers has expressed a need for a new employee system that will allow both the human resources department and employees to manage relevant information in one unified HRIS.

This proposal recommends the best unified HRIS solution that meets Fab Flowers' two-fold employee information system needs and criteria by exploring and analyzing three different strategies: In-house Development, Outsourcing, and Software Acquisition. We selected the strategy that is best suited for Fab Flowers' new HRIS based on its status as a Small-to-Medium-sized Business (SMB), by performing a comparative analysis of the three strategies. The analysis revealed that the In-house development has significant disadvantages, such as long development time, high costs, security issues, and requires high technical skills that Fab employees lack, making the In-house development option expensive and not practical. The analysis also revealed that Outsourcing, while being low-cost and providing access to expertise, has some disadvantages, such as the need for Fab Flowers to relinquish control over HR operations to an external entity. This creates potential security and compliance risks, making the Outsourcing

option less desirable. Conversely, the analysis found that the Software Acquisition through an available SaaS HRIS is the best solution, having the most advantages, such as platform scalability, available features, and constant software updates/maintenance provided by the vendor. Therefore, this proposal strongly recommends the Software Acquisition strategy as the best solution for Fab Flowers' new unified HRIS, specifically a Cloud-based Software-as-a-Service (SaaS) HRIS solution designed for SMBs. Additionally, this proposal incorporates the requirements for a Saas HRIS system and recommends the Agile methodology for its implementation. It also identifies key stakeholders, discusses the Agile methodology's benefits and disadvantages, and provides an explanation of why Agile is recommended over the Waterfall and Evolutionary Prototyping methodologies.

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## Goals and Objectives

The goal of the proposal was to select the best HRSI strategy that meets the needs and criteria of Fab Flowers for a new HRSI that unifies its current two-fold employee information into one coherent system. Currently, Fab Flowers uses an employee portal system for its ESS operation. Through the portal, employees can manage some of their personal information and request vacation. Additionally, Fab Flowers' HR department uses a separate HR system to manage employee benefits and leaves. The Fab Flowers HR department also uses a separate HR system to manage employee benefits and leave. The main objectives were to evaluate three strategies (In-house Development, Outsourcing, and Software Acquisition) as solutions for a new HRIS that unifies the two separate systems. The evaluation involved a comparison analysis to determine the solution best suited for Fab Flowers' needs, based on its status as an SMB, requirements, and criteria. Additional goals for this proposal are to identify key stakeholders and the requirements for the selected strategy, as well as to recommend a development methodology, listing its pros and cons, and justifying its recommendation over other development methodologies.

### HRIS Objectives Considerations

To reach the project goal objectives the following criteria were considered:

- The HRIS solution needs to have the capacity to access all the employees' data.
- The HRIS solution needs to be automated as much as possible, simple to use, organized, regulatory compliant, and help HR staff work efficiently (Matins 2023).
- The HRIS solution needs to provide employees with a self-service approach (ESS) through a modern and easy-to-use User Interface (UI) to manage personal

information, view pay stubs, and request time off (Romana, 2024). The system also needs to provide easy-to-access support, documentation, and training.

In addition to the four main criteria listed above, sub-criteria found in the Solution section of this proposal were used to perform a comparative analysis evaluating potential HRIS strategies.

**Overview of the HRSI Strategies**

The three HRSI strategies reviewed in this proposal are In-house Development, Outsourcing, and Software Acquisition.

**Software Acquisition**

Software Acquisition entails buying software from a vendor (Valacich & George, 2020). This common approach has several sub-categories, which are Packaged Software Providers, Cloud Computing - Software-as-a-Service (SaaS), Enterprise Resource Planning (ERP) Systems, and Open-Source Software.

- Packaged Software Providers is off-the-shelf software that is designed by a vendor with specific functions, like HR management. These systems can range from "turnkey" systems that have limited modification options to systems that allow for some customization options. These systems need to be installed on the customer devices. Note that this approach will not meet the Fab Flowers' HRSI criteria, as it lacks the customization needed to merge both the employee portal system and the HR system.
- SaaSs are software applications that are hosted in the cloud and can be accessed by users over the internet, typically through a web browser. The vendor manages the application functionality and is in charge of the infrastructure, maintenance, updates, and security. Organizations typically pay a subscription fee, often on a per-employee-per-month basis.
- ERP systems usually cater to large-scale systems. They implement suites of applications or modules that can manage several business processes across several departments, such

as finance, HR, manufacturing, and supply chain. Note that this approach clearly will not meet the Fab Flowers' HRSI criteria as it is best suited for large organizations, not for SMBs like Fab Flowers, and has significant cost, complexity, and unnecessary features.

- Open-Source Software code is freely available to anyone with technical skills for use, modification, and distribution. However, the implementation, customization, and support of the system need to be performed internally by employees possessing the required expertise or by paying an external entity. Note that this approach clearly will not meet the Fab Flowers' HRSI criteria as it demands significant in-house technical expertise that Fab Flowers lacks.

**In-House Development**

In-house development entails developing, designing, coding, testing, implementing, maintaining, updating, scaling, and hosting the new HRIS using only Fab Flowers' employees. While this approach allows a high level of customization, it is very costly and complex to implement for an SMB.

**Outsourcing**

Outsourcing entails hiring an external entity to develop and/or maintain some or all of the new HRIS. While this approach frees up internal resources and is less costly than an In-house approach, it is entirely dependent on an external entity, posing risks.

**Overview of the Development Methodologies**

The three development methodologies reviewed in this proposal are Waterfall, Evolutionary Prototyping, and Agile.

**Waterfall**

The Waterfall methodology or model is a sequential development process in which the development flow cascades downward sequentially through five phases (planning, design,

implementation, and maintenance), similar to a waterfall. In other words, you must complete each project development phase before moving to the next (Atlassian, n.d.).

### Evolutionary Prototyping

The Evolutionary Prototyping methodology is a development methodology where a system, usually software, is built itinerary by refining prototypes based on user feedback and testing (Mockitt, n.d.). This involves splitting a system into several independent modules, prototyping these modules, and presenting the prototype to users for testing.

### Agile

The Agile methodology is a project management and software development framework that breaks projects down into several phases, known as sprints (Laoyan, 2025). It is an iterative methodology where a team looks back at the previous iteration to see if there was anything that could be improved. Note the Agile methodology with its iterative approach and flexibility is best suited for SaaS HRIS implementation at Fab Flowers.

## Solution

In this section, we explored the pros and cons of each strategy and provided a comparative analysis of the three strategies related to the Fab Flowers HRSI criteria. We also identify the key stakeholders, discuss the Agile methodology's benefits and disadvantages, and provide an explanation of why Agile is recommended over the Waterfall and Evolutionary Prototyping methodologies

### Pros and Cons of Software Acquisition - SaaS

Note that in our pre-analysis in the Overview of the Strategies section of this proposal, it was clear that Packaged Software Providers, ERP systems, and Open-Source Software were not suitable solutions for the new Fab Flowers HRSI.

Pros:

- Many Saas vendors provide cloud-based HRIS.
- Saas is cost-effective, it is advantageous for SMBs like Fab Flowers due to lower initial investment and predictable subscription fees (Ungashick, 2025a).
- SaaS usually comes with vendor support and maintenance (Vice, 2022).
- Saas can be deployed rapidly and from anywhere.
- Most available SaaS systems have proven functionality and features that automate tasks.
- Saas provides reliable accessibility. As a cloud-based system, it can be accessed from any device with an internet connection.
- Saas systems are scalable.
- Saas HRISs are secure and comply with regulations; vendors invest significantly in platform security and in keeping their systems compliant with regulations (Ungashick, 2024b).

Cons:

- SaaS systems have limited customization (Vice, 2022).
- Using SaaS locks-in Fab Flowers with one vendor relying on the vendor for service, support, updates, and maintenance.
- Although most SaaS HRIS offer pre-built integration solutions with common business applications, integrating Fab Flowers' existing separate employee data system into one unified SaaS HRIS may require extra effort and extra cost.

When applying the criteria from the Overview of the Strategies section for this proposal, the SaaS strategy meets all of them, as all employee data can be accessed from a single source, it provides proven functionality and features that automate and self-services tasks, as well as to

easy-to-use UI; vendors invest in keeping their software regulations compliant and secure; and Saas solutions are cost-effective.

**Pros and Cons of In-House Development**

Note that In-House development entails developing, designing, coding, testing, implementing, maintaining, updating, scaling, and hosting the new HRIS using only Fab Flowers' employees.

Pros:

- In-house development allows HRIS solutions to be completely customized (Specno, 2024).
- In-house development allows total control over the software functionality and features (Watson, 2024).
- The software is owned by Fab Flowers and can be considered a company asset.

Cons:

- In-house development can be very costly; it is typically the most expensive option for SMBs. The Total Cost of Ownership (TCO) for a software solution needs to be considered, as well as the substantial upfront price (Mitrovich, 2022).
- In-house development usually has long development times.
- In-house development requires substantial in-house expertise (Watson, 2024). This requires an in-house team of experts that SMB like Fab Flowers usually do not possess.
- In-house development comes with high risks, such as higher costs than predicted, diverting funds from other areas, and failure to meet requirements.
- In-house development comes with long-term scalability challenges that may emerge from the loss of technical expertise (employees) and budget restrictions.

When applying the criteria from the Overview of the Strategies section for this proposal, the In-house development strategy satisfies the need for a unified solution, as the data source can be fully customized. However, it fails to achieve the other objectives because delivering a custom HRIS solution entails substantial up-front and probably hidden costs and requires in-house expertise that Fab Flowers, as an SMB, does not possess. Additionally, a custom HDIS is hard to secure, leaving Fab Flowers responsible for continuously maintaining, securing, and ensuring regulatory compliance, a burden that can divert funds from Fab Flowers' main business operations and objectives.

**Pros and Cons of Outsourcing**

Note that Outsourcing entails hiring an external entity to develop and/or maintain some or all of the new HRIS.

Pros:

- Outsourcing has the potential to cost less than In-house development, as the labor cost of developing and maintaining the HRIS can be outsourced to countries like the Philippines with lower labor costs (Watson, 2024).
- Outsourcing offers access to expertise.
- Outsourcing can offer faster development and implementation (Zabolotna, 2025).
- Outsourcing offers scalability/flexibility.
- Outsourcing allows SMB like Fab Flowers to focus main business operations and objectives by delegating the development, implementation, and maintenance of a New HDIS to a reputable partner.

Cons:

- Fab Flowers will lose control over the day-to-day development, implementation, and maintenance of the new HDIS.
- Outsourcing may create communication problems between Fab Flowers and an external team (Shuliak, 2024).
- Outsourcing creates security and IP risks, as employees' data and network infrastructures are managed by an external entity.
- Outsourcing can have hidden or unforeseen costs, such as for ongoing maintenance and support contracts, as well as unforeseen complexities during the processes of developing, implementing, or scaling the HRIS.

When applying the criteria from the Overview of the Strategies section to the Outsourcing strategy. Although, it can meet Fab Flowers' goals of unifying employee data and delivering automated, and user-friendly HR self-service by using external expertise and letting Fab Flowers focus on its main business operations and objectives, it compromises other objectives, such as it introducing communication delays for support, may not provide adequate training to employee, and the hidden costs can make the solution more expensive than expected.

**HRSI Strategies Comparative Analysis**

The goal of the comparative analysis is to compare the three strategies by measuring them against Fab Flowers' status as an SMB, objectives, and criteria for a new HRIS.

**Table 1**

*Strategies Comparison Table*

| Criterion Category & Specific Requirements | In-house Development | Outsourcing | Software as a Service (SaaS) |
|---|---|---|---|
| **1. Unified Data Access** | | | |

| | | | |
|---|---|---|---|
| **Capacity to Access All Employee Data** | Yes (Fully customizable) | Yes | Yes |
| **2. System Functionality and Efficiency** | | | |
| **Automation** | Yes | Yes | Yes |
| **Ease of Use (UI)** | Yes | Yes | Yes (Typically modern and user-friendly) |
| **Organization** | Yes | Yes | Yes (Standard functionality) |
| **Regulatory Compliance** | Fab Flowers' responsibility | Dependent on Vendor | Vendor's responsibility |
| **Security** | Fab Flowers' responsibility | Potential Risk | Vendor's responsibility |
| **3. User Support** | | | |
| **Employee Self-Service (ESS)** | Yes | Yes | Yes (Standard in most HRIS SaaS) |
| **Support, Documentation, and Training Access** | Created/managed internally | Dependent on Vendor agreement | Provided by Vendor |
| **4. Cost** | | | |
| **Cost-Effectiveness (TCO)** | Very High | Medium (may has hidden costs) | High (Lower initial cost, predictable fees) |
| **Maintenance and Updates** | Fab Flowers' responsibility | Included (Potentially extra cost/contract) | Included, vendor responsibility |
| **Scalability** | Challenging (Expertise and extra budget) | High (external resources) | High (Vendor controlled) |
| **Sturdiness and Adaptability** | Dependent on built | Dependent on Vendor | High (Vendor infrastructure) |
| **5. Other Key Operational Factors** | | | |
| **Implementation Speed** | Slow | Medium | Fast |
| **Customization Level** | High (Total control) | Medium to High | Low |
| **System Control** | Total | Low (Relies on external entity) | Low (Vendor controls) |
| **Required In-house Expertise** | Very High | Low/shared | Low |

| | | | |
|---|---|---|---|
| **Vendor Lock-in** | No | Medium (Dependent on contract/partner) | Yes |
| **Suitability for SMB** | Low | Medium | High |

*Note:* The table compares the In-house Development, Outsourcing, and Software Acquisition strategies against the Fab Flowers' status as an SMB, criteria, and specific requirements.

As shown in Table 1, although the In-house development strategy provides total control and complete customization, it is not a solution suited for Fab Flowers' new HRIS, as it has high costs, both upfront and TCO, and requires significant in-house expertise, which Fab Flowers lacks. The Outsourcing strategy, on the other hand, is more of a middle ground solution than the In-house approach, allowing Fab Flowers to access external expertise. It is also customizable and can be less expensive if contracted from overseas vendors. However, it has risks such as no direct control, potential communication and security issues due to an external entity having access to the company data, and the possibility of hidden costs.

The Software Acquisition strategy, particularly the SaaS strategy, meets Fab Flowers' requirements and its criteria. SaaS HRIS solutions are typically the most cost-effective for SMBs due to their subscription plan model and lower upfront cost. Additionally, Fab Flowers does not need to be burdened by the system being regulation compliant, secure, and maintained, as these tasks are handled by the vendor. Furthermore, the solutions come with standard features that usually include ESS, automation, and user-friendly interfaces that do not need to be developed compared to the other two strategies. However, the strategy has disadvantages such as limited customization and vendor lock-in. Nonetheless, an HRIS SaaS implementation best suits Fab Flowers' HRIS requirements. Therefore, we recommend the Software Acquisition strategy, specifically selecting and implementing a suitable SaaS HRIS solution for Fab Flowers.

**Recommended SaaS Strategy Requirements and Stakeholders**

Implementing the SaaS HRIS solution entails a good understanding of project requirements and who the stakeholders are. The following is an analysis of the implementation's requirements and stakeholders:

- The implementation needs to unify the separated HR systems and employee data. The stakeholders for this requirement are the HR department, which needs to access and maintain the data
- The SaaS HRIS software needs to meet ESS requirements. The stakeholders for this requirement are the HR department and all the Fab Flowers' employees that need to easily access pay stubs, update personal information, and request leave through the employee portal.
- Process Automation: The implementation needs to support automating HR processes like benefits enrollment and payroll can improve efficiency and workflows, as well as reducing errors from manual data entry. The stakeholders for this requirement are HR department and all the Fab Flowers' employees who need to use the HRIS features.
- Regulatory Compliance: The implementation needs to be regulatory compliant. The stakeholders for this requirement are the HR department and the Fab Flowers staff responsible for legal compliance.
- Scalability: The implementation needs to be scalable for company growth. The stakeholders for this requirement are the HR Department and Fab Flowers' management team.
- Cost Effectiveness and Vendor Support: The implementation needs to be cost-effective and have reliable vendor support, training, and documentation. The stakeholders for this

requirement are the HR department, Fab Flowers' management team, and all the other employees who need to use the employee portal.

The best suited methodology for implementing the SaaS HRIS is the Agile methodology, as flexibility and an iterative nature for SaaS HRIS implementation.

**Pros and Cons of Agile Methodology**

Note that Agile methodology entails a team iterating through the development process (in this case, the implementation of the SaaS HRIS solution) and looking back at the previous iteration to identify potential improvements.

Pros:

- Flexibility: Agile allows teams to adapt to changing requirements (Qualium Systems, n.d.).
- Embraces Uncertainty: Agile acknowledges that the outcome isn't fully known at the start, encouraging discovery and helping to find the best solutions.
- Immediate Feedback: Constant testing and input from customers/stakeholders during development (in this case, HRIS implementation) cycles.
- Robust Solution: The iterative process of development, testing, and debugging leads to more efficient and well-developed final products (implementation).

Cons

- Lack of Documentation: The constant change can sometimes lead to incomplete or outdated documentation.
- Scope Creep: Continuous improvements and customer feedback can lead to requests for additional features beyond the original scope of the implementation.
- Time-Consuming: Requires time commitment and constant availability from the team.

- Unpredictable Outcomes: Some uncertainty (outcome isn't fully known at the start) can be an issue for some stakeholders.

**Rationale for Choosing Agile over Other Methodologies**

Agile was selected over Waterfall and Evolutionary Prototyping because it offers the most appropriate balance of structure (iterative nature) and flexibility for implementing the new Fab Flowers SaaS HRIS. Compared to Waterfall methodology, it offers more flexibility, and its iterative nature allows feedback from stakeholders, which the Waterfall does not provide. The Evolutionary Prototyping methodology will be better suited than Agile if the requirements of the HRIS implementation were unclear, which is not the case in of Fag Flowers's SaaS HRIS implementation. Additionally, the Agile methodology naturally incorporates the principles of prototyping by allowing users to interact with parts of the actual system in the iterations of the implementation. For all these reasons, Agile is the best suited methodology for the implementation of the SaaS HRIS at Fab Flowers.

## Recommendations/Conclusions

The comparative analysis of the In-house Development, Outsourcing, and Software Acquisition - SaaS strategies performed against Fab Flowers' specific requirements for a two-fold HRIS. The results of the analysis indicated that In-house development, despite having advantages such as total control and high customization, is not a viable solution. Similarly, while Outsourcing can provide a less expensive solution than In-house development and access to external expertise, it has the potential to introduce security and communication issues as well as unforeseen costs, making it a less attractive solution for Fab Flowers new HRIS.

Consequently, based on comparative analyses evaluation results against Fab Flowers' criteria and requirements, this proposal strongly recommends the Software Acquisition strategy

as a solution for the new Fab HRIS, specifically a SaaS HRIS solution, as it meets most of Fab Flowers' requirements and criteria. A SaaS HRIS solution is cost-effective, can unify Fab Flower’s existing HR information systems, and has additional advantages, such as platform scalability, available features, and constant software updates/maintenance, all provided by the vendor. Furthermore, it has proven ESS, automation, and easy-to-use UI features. Additionally, we strongly recommend using the Agile methodology for the implementation of SaaS HRIS, as it is flexible and integrates user feedback.

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# Appendix

Potential SaaS HRIS Vendors for SMBs. Cost based on Employee Per Month (PEPM)

Gusto:

- HR platform with flexible plans
- Automated tax filing, contractor payments, and a wallet app. Starts at $35 per company + $6 PEPM.
- Best for firms <150 employees that prioritize payroll simplicity.

BambooHR:

- All-in-one HRIS for companies under 300 employees.
- Excellent UI, reporting, and optional add-ons for payroll and employee performance
- Free Support
- Cost around $5 PEPM and a flat rate for <25 workers, month-to-month contracts.

Rippling:

- Automation-centric suite that unifies HR, payroll, and IT device management.
- Cost start at $8 PEPM, final quotes are custom.
- Onboarding workflows and 600+ integrations