**CEGEP Heritage College**

**Happy Valley Kennel**

**Feasibility Analysis**

**Prepared For: Jim and Sally Reid**

**Date: October, 2016**

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**Version History**

|  |  |  |
| --- | --- | --- |
| **Version** | **Author** | **Summary** |
| 1.0 | Philip | Did the feasibility analysis |

**Executive Summary**

The candidates for the Happy Valley Kennel system were discovered by looking online for other kennel services in the Ottawa/Gatineau area. The candidates we’re looking at are Bone Voyage boarding services, Keshet rescue kennels and us, the students developing the system. Bone Voyage was recommended because it’s a standalone system to take reservations and store then in a database and Keshet kennels was selected because it’s using a COTS product build by ProPet Software. The two systems are pretty different, so I figured having more variety would be good as opposed to having multiple systems running similarly, like two using COTS products or two systems using their own proprietary systems.

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# Project Definition

## Project Background

This system is getting built for Jim and Sally Reid because they need a reservation system for their business, Happy Valley Kennels. Currently Jim and Sally don’t have any form of online system, and they feel that having one would help increase business.

## Structure of Feasibility Analysis Document

The feasibility analysis documents are to determine which system would be best to use: A small system developed for a small kennel business, a COTS system that many others use and a custom built system developed by us, the students at Heritage.

1. Technical Feasibility: This type of feasibility tries to determine whether or not we have the technical skills required to develop this system. If we have access to the required hardware and software to develop as well as if we have the knowledge of systems, databases and web design to build it.
2. Economic Feasibility: This type of feasibility tries to determine whether or not the system can be afforded by us and by Happy Valley Kennel. A COTS product will cost a lot more than the system being developed for free by the students for example, so in terms of price, us developing the system is the best option
3. Organizational Feasibility: This type of feasibility determines whether or not a company might want to develop a system. Bone Voyage boarding for example might not want us to buy their system because they make some profit off their site, but lose it in competition. Whereas ProPet would want us to buy their software since they’re a much larger distributor of a product, they don’t actually provide the service.
4. Schedule Feasibility: This type of feasibility determines if we have enough time to build the system. The system needs to be done for us by April, so would taking time to develop our own system take too long? How can we manage the development to make sure we can do it in time? Maybe we have too much work and integrating a pre-existing system would just be a better idea…

# Candidate Systems Matrix

|  |  |  |  |
| --- | --- | --- | --- |
| **Characteristics** | **Candidate 1** | **Candidate 2** | **Candidate 3** |
| Description of the candidate | This is a package built for a single website for them to use, customized to their specifications | This is a package built for many different websites to use, implemented mostly the same for each website | This is a custom package built by us, implemented specifically for the needs of HVK |
| Benefits | The system would already be built and is very quickly implemented | The system is a framework built for many sites, so you’d have good customer service with them and a system that works for sure | The system is custom built to the requirements and services of HVK. Also it’s free. |
| Application Architecture | This is a web based system built for one website | This is a web based system deployed across many different web sites | This is a web based system built to be added onto the HVK website |
| Servers and Workstations | A web server and a database server to host the site | A web server and an oracle server to host the website and the database. | A web server and an Oracle server |
| Database Management System | Pl/SQL | MySQL | Oracle SQL |
| Software Tools Needed | HTML, CSS, JavaScript, Node.js, PHP, pl/SQL, jQuery | HTML, CSS, bootstrap, JavaScript, PHP, MySQL, jQuery | HTML, CSS, Bootstrap, JavaScript, PHP, SQL, jQuery, jQueryUi, |

# Feasibility Analysis Matrix

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Bone Voyage reservation system** | **Keshet Kennels powered by ProPet software system** | **Our HVK system** |
| **Description of the candidate** | **This candidate is using a form built for their web** | **This candidate is using a COTS product built by ProPet Software** | **This is built by the students of Computer Science who are building this for school** |
| **Organizational**  A description of the degree the candidate would benefit the organization and how well the system would work. A description of how well received this solution would be from user management, user, and the organiz­ation. | Happy Valley Kennel would benefit from having their system because it’s a very simple system that would be easy to integrate into the desired system | This is a COTS product that has all the features and functionality needed for the HVK system. Being a COTS product, it can easily be integrated into the desired system | This is a custom system, so it would contain everything that the HVK owners want and no extraneous information. This fits in best since the developers will know exactly how things are integrated |
| **Schedule**  A description of how well received this solution would be from user management, user, and the organiz­ation. | This solution would take a lot less time since we’d just have to pay to be able to get the whole system and then modify it to our needs. | This is a COTS product, so it would take very little time to develop. We’d really just need to integrate it into our database that we’d have to build | This is a custom built product, so we’d need to fully develop the system and database. It will take a lot longer, but it’s still feasible |
| **Technology**  An assessment of the maturity, availability (or ability to acquire), and desirability of the computer technology needed to support this candidate. An assessment to the technical expertise needed to develop, operate, and maintain the candidate system. |  |  |  |
| **Economic Feasibility**  Cost or benefit to develop or purchase and then support the system | This system won’t cost a whole lot since we’d probably just have to pay a small business to buy their system, then we’d have to integrate it with our database | This system would cost a lot, probably a monthly/yearly fee since it’s a COTS product. It would cost a lot to have rights to it, but then we’d just have to integrate it | This system would cost nothing since we’re students and we’re working for free. We develop everything |
| **Ranking:** | **3** | **2** | **1** |

# Conclusion and Recommendations

In conclusion, I think that the best system would be to simply build our own. We have the tools to be able to build it and we’re gaining the knowledge to be able to. The system will cost nothing to build since its being built by the students and it’s also a lot better for HVK since the system is suited exactly to their needs. We want to build the system because we want a good grade, but mostly because we want to gain experience and knowledge in actually developing a system. We get to integrate our knowledge from all our different courses and pour it all into one big system. We have the time to build the system since the time spend building it is incorporated into our school schedules, so we have plenty of time to do it. Building the system ourselves is probably the most feasible of the 3 different possible solutions.