COMSA Summer 2014
Streamlined Record Keeping
Open Water Swimming
Web Application Proposal

Prepared for
Marcia Anziano
Brian Hoyt
Colorado Masters Swimming Association

Prepared by
Josh Duffy
2693 South Deframe Circle
Lakewood, CO 80228
Mobile: 303-921-8628
Josh@affektive.com

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Executive Summary

Affektive Software LLC is pleased to present Colorado Masters Swimming Association (COMSA) with this proposal for the Chatfield State Park open water swimming tracking application project. We understand the need for a functional mobile application to streamline the tracking process that COMSA is currently faced with and recognize the unique opportunity to develop a software-based solution to improve the situation. We believe that we are uniquely positioned to successfully develop an application customized to the specific needs of COMSA. Affektive Software LLC has become aware of several current problem areas in COMSA's operation at the Chatfield State Park Gravel Pond which include:

1. Inefficient check in / check out process at the pond (some have to wait in line to enter the pond due to the check in process)
2. Large paper trail and environmental impact including ~60 pages of swimmer information weekly for check in / check out
3. Time consuming process of updating sheets in binder at the pond
4. Cumbersome entry of binder data into Microsoft Excel
5. Repetitive queries made in Microsoft Excel for monitor needs
6. Difficult tracking of number of swimmers over any given time period

Having discussed the requirements for the mobile application, we are confident that our services will effectively address your needs. Our goal is to develop a mobile software solution by late Spring 2014, ready for testing and deployment by May 1, 2014. By implementing our services, COMSA will have:

1. Improved efficiency checking in/out swimmers at the gravel pond
2. Improved analytics for record keeping
3. Real-time cross-references to USMS database
4. Private data maintained confidential to COMSA
5. Reduced paper/printing cost and environmental footprint

Our unique ability to develop web-based application solutions as shown through several successfully deployed web applications qualifies Affektive Software LLC as a likely candidate to develop a software solution for COMSA. We look forward to developing a relationship with COMSA to ultimately assist in streamlining their processes.

Company Background

Josh Duffy and Michael Pierce founded Affektive Software LLC in September 2013. www.affektive.com offers web application development services. Our applications are known for simple yet effective design and streamlined user interaction and experience.

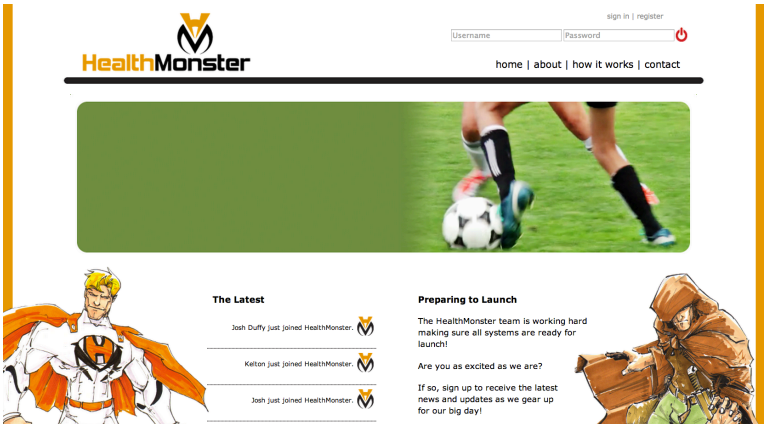
Affektive Software LLC currently serves several customers in the greater Denver Metro Area and operates on its founders' technical experiences in web application development.

Mission Statement

Our company's mission is to successfully deploy web applications to change the way that software affects everyday business by streamlining their processes through a solution based on optimal user experience and interaction.

Services Provided

1. HealthMonster Web Application (healthmonster.herokuapp.com)
    a. Helping promote healthy kids through the encouragement of music, exercise, and community service



2. Sustainable Clicks Web Application (tool.sustainableclicks.com)
    a. Streamline Google AdWords file creation by uploading and downloading Microsoft Excel spreadsheets

Identification of Needs

COMSA Requirements

Affektive Software LLC understands the requirements to be as follows:

General Requirements

1. Verify open water swimmer as a USMS member
2. Keep daily tally of open water swimmers at Chatfield State Park

Technical Requirements

1. Check USMS database from the gravel pond to see real-time member status
2. Cannot interfere with USMS database
3. Check in swimmers entering the pond
4. Check out swimmers having left the pond
5. Keep total swimmer tally for each day of swimming (Monday, Wednesday, Saturday)

Reporting Methods

1. Allow access to data remotely from desktop or mobile device to retrieve tally counts for each day of swimming
2. Include date ranges for tallies of more than one day of swimming
3. Number of days swimming for each swimmer that have not yet monitored
4. Number of times each volunteer has monitored

5. Export to Microsoft Excel by day / date range for record keeping

Timeline Requirements

Task	Date
Project Proposal	January 15, 2014
Project Approval	January 31, 2014
Project Start	February 1, 2014
Weekly Project Update	February 7, 2014
Weekly Project Update	February 14, 2014
Weekly Project Update	February 21, 2014
Initial Review and Testing	February 28, 2014
Conference Call for final revisions	March 17, 2014
Project Completion / Deployment	April 1, 2014

Cost Requirements

1. "Not to Exceed" project cost required
2. No budget requirements otherwise set in place

Assumptions

The following assumptions were made in preparation for this proposal:

1. Mobile devices including iPhones and Android phones will be required for monitors to use the software
2. Mobile devices can be any platform (iPhone, Android, etc.) but must be equipped with a cellular data plan (Not Wi-Fi)
3. Chatfield State Park has cellular data coverage in the area of the gravel ponds for most cell providers
4. Swimmers can be identified by first and last name
5. No need for additional waivers to be signed at the gravel ponds

Needs Identification

After analyzing different scenarios and taking into account the strengths and weaknesses of each scenario, we see several potential solutions:

1. Mobile web site compatible with all mobile devices
2. iOS application to be run on iPhones and iPads equipped with cellular data plan
3. Android application to be run on Android operating system based phones
4. Desktop based web application for entering paper data into system

Industry trends have notably specified that mobile applications can be suitable solutions to mobile software. However, due to flexibility to have volunteer monitors at the gravel pond, it is hard to ensure a specific operating system on a personal phone. As previously discussed, it would be hard to designate one device (i.e. a

COMSA-owned iPad) to be used for check in and check out. Due to the remote location and having various volunteers at different locations, it would be difficult to pass off the device from volunteer to volunteer. It would also be challenging to integrate with the State Park to store the device at the kiosk at the entrance to the park for example. Having volunteers use personal devices also reduces the cost incurred by COMSA to establish a mobile software platform for checking in and out swimmers at the ponds.

Proposed Services

Objectives

We have analyzed the present situation and realize the following objectives must be achieved to deploy a successful application:

1. Reduce the handling of paper sheets that must be printed weekly from the USMS database
2. Decrease the amount of time needed to check in and out swimmers
3. Decrease the amount of time needed to total daily counts of swimmers
4. Optimize user experience and interaction for a simple, yet effective design
5. Create a platform that is updatable and scalable to integrate new options into future releases of the software

Services

In order to achieve the objectives, Affektive Software LLC plans to develop an mobile web application based on the Ruby on Rails framework. The web application will first be drafted out using a method called 'wireframing.' Affektive Software LLC will work directly with COMSA to develop sketches and storyboard of how the application will look and flow from screen to screen. Once the wireframe are built, a representative from Affektive Software will present the design to COMSA and request feedback.

Upon approval, Affektive Software will begin the code development to build the web application according to the design in the wireframes. According to the timeline described previously, the application will be deployed initially for testing at Chatfield State Park with COMSA and future users. After feedback is acquired the application will be adjusted to final acceptance criteria. Once the application meets acceptance criteria as agreed upon at project start, the application will be deployed for live use on the Internet.

After initial use of the software for summer 2014 (version 1.0), Affektive Software LLC would like to preform a conference call and/or meeting to review the performance of the application throughout summer of 2014. Upon review, Affektive Software LLC will provide recommendations for updates, improvements, and

additional features to the application in preparation for version 2.0 to be launched for use by summer of 2015.

Deliverables

In the course of the project, we will deliver the following:

1. Wireframe Designs
2. Initial application for review
3. Final application ready for deployment

Requirement vs. Solution

The following table shows how each requirement will be addressed:

Requirement	Solutions	Deliverables
Check USMS database from the gravel pond to see real-time member status	Build a web scraper to handle checking the USMS website by first name or last name. This is the same as any public user as access to and does not interfere with the database in any way.	Form within the web application to type in letters of a swimmer's first or last name to submit to the USMS database query to check for validity.
Cannot interfere with USMS database	Database search on USMS website	See above
Check in swimmers entering the pond	Upon validation of USMS member, user will be able to check the swimmer into the pond and assign them to a list of 'current swimmers'	Check in button on web application after validation of USMS member
Check out swimmers having left the pond	After checking swimmer into the lake they can be checked out on the web application	Check out button for each swimmer on a list of current swimmers on the web application
Keep total swimmer tally for each day of swimming (Monday, Wednesday, Saturday)	Implement reporting tools into web application for administrators	Date ranges and search-by-date buttons on the web application for administrators to navigate to see history of swimmers by day and date range at the pond

Table 1: COMSA Web Application Requirements & Solutions

Reporting

As requested by COMSA, Affektive Software LLC will include several options for reporting within the web application. The application will feature flexible reporting options that allow tallies of swimmers to be queried for any specific date or date range. For example, tallies of swimmers can be queried per day, per week, and per month as needed.

A report can also be generated showing the number of times a swimmer has volunteered to monitor the pond. This will enable COMSA to be able to tell how many times each swimmer has volunteered to monitor in order to create a fair management system at the pond.

Another report can also be generated showing the number of times a swimmer has entered the pond greater than 'x' times, where 'x' is a value to be selected from a dropdown menu between 1 and 10 days at the pond. This will be useful to query how many times a unique swimmer has swam at the pond which can then be compared to the number of times they have volunteered as a monitor. This query enables the process that used to take multiple hours manipulating Microsoft Excel spreadsheets to now where it will take just a few minutes.

User Permissions

The web application will store user information including email address and password (encrypted) for both standard users and administrative users. The administrative users will have access to all features of the application, including reporting and managing other user accounts. The administrative users will create the standard user accounts for pond monitors who will have limited access to application features. Table 2 outlines the user permissions that each user type will have according to the features of the application.

Admin User	**Standard User (Monitor)**
Can create / edit other user accounts	Can edit their own account only
Access to reporting features	No access to reporting features
Check in / out swimmers	Check in / out swimmers
Search USMS database if needed	Search USMS database if needed

Table 2: User Permissions

Throughout the summer, COMSA admins will need to create a user account for each monitor. Creating the user account will only require the monitors email address and an example password to be changed by the monitor at a later time. Once the monitor's account is created, it will remain active for the remainder of the swimming season at the pond.

Security

The web application deployed by Affektive Software LLC will utilize a secure login called HTTPS (Hypertext Transfer Protocol Secure). It is a communications protocol for secure communication within a computer network. All pages of the app that allow for COMSA content access will require the user's secure login information to ensure a valid login and secure connection.

For future updates to the application, Affektive Software LLC will continually improve security requirements to adhere to guidelines as indicated by current industry standards.

COMSA Web Application Project Team

The project will be overseen and developed by Josh Duffy, CEO of Affektive Software LLC. If development help is needed outside of Josh Duffy, he will manage a team of additional developers.

Estimate for Proposed Services

Development for the web application will be charged at a rate of $40 / hour. This cost includes the time spent to develop the wireframe mockups for initial layout and function of the application.

Additional costs incurred will be expenses for testing the mobile web application at Chatfield Gravel Pond. In addition to development costs, COMSA will be responsible for hosting the web application on a cloud-based server at a monthly rate of $5. All the storage space and bandwidth needed shall be covered in lowest price tier of Digital Ocean's cloud hosting service.

Initial Deployment

Task	**Estimated Hours**	**Cost**
Wireframe design and review	4	$160.00
Initial application and batabase setup	9	$360.00
Integration with USMS database	14	$560.00
Responsive design for mobile use	14	$560.00
Testing at Chatfield State Park	4	$160.00
Labor Total	45	$1,800.00
Expenses	**Rate**	**Cost**
Two testing sessions at Chatfield State park @ 38 mi round-trip each session	$0.565	$42.94
Cloud server hosting @ $5/month for 3 months	5	$15.00
Expenses Total		$57.94
	Total	**$1,857.94**

Table 3: Initial Deployment Costs

Compensation

Compensation is dependent upon successful completion and deployment of the web application. Successful completion will be determined according to the features outlined and accepted by COMSA in this proposal. Once all features described in the proposal are functioning and tested by COMSA administrators, COMSA shall make a payment to Affektive Software LLC for a **not to exceed** cost in the amount of $1,857.94.

Additional features and updates outside of those outlined in this proposal will be negotiated as required for the ultimate usability of the application by COMSA and its volunteers.

Future Subscription & Maintenance

To provide continued support for web hosting and routine maintenance on the application, a subscription rate of $25 / month of use will be required. This subscription rate will not be charged during the summer of 2013 (May 1 – Sept 1), as the costs will be covered by initial deployment.

Use and maintenance of the application outside of the summer season will be discussed and negotiated after the initial deployment season.

Ownership of Web Application

Affektive Software LLC owns and reserves the rights to the source code developed for the initial deployment outlined in this proposal. COMSA will license the software for use by its administrative users and pond monitors per season. For the initial season of summer 2014, COMSA's licensing fees and subscriptions for the software will be waived as part of the initial development and deployment cost. Future rates for use of the application and updates to the application will be negotiated as part of the end of summer review following summer 2014.

Affektive Software LLC does not request that COMSA sell or otherwise market its open water swimming application use to other potential users or customers within or outside of USMS. However, Affektive Software LLC requests contact information for other Local Master's Swimming Clubs that may benefit from use of a web application similar to COMSA's. Affektive Software LLC also requests that upon successful integration with the Chatfield Gravel Pond, COMSA publishes publicly accessible information including newsletter, email, or other media sharing the experience and benefits of integrating the application to their check in / check out process at Chatfield State Park.

Conclusion

Affektive Software LLC is confident our proposed strategy will streamline check in and check out at the Chatfield State Park gravel ponds in addition to providing data analytics to quantify swimmer usage. We sincerely hope COMSA will consider us as a long-term partner and begin a mutually beneficial relationship. If you have any questions, we are available to answer them at your convenience. We look forward to discussing this opportunity further.

After reviewing this proposal, the following steps are to be taken in order to arrive at an agreement:

1. Submission of questions / suggestions
2. Counter proposal or approval by COMSA

Thank you for your interest. We look forward to hearing from you soon.

Sincerely,

Josh Duffy
Josh@affektive.com
Mobile: 303-921-8628
Affektive Software LLC