

Lab 1 – Roc Family Product Description

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February 26 2018

Version 2

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1. Introduction

When a child has cancer, it is not only difficult for the child but it is also difficult for the entire family. The family can feel isolated with a lack of support. They also have the added stress of paying for medical treatment which can cause them to struggle financially. The kids are constantly in the hospital which can cause them to be bored. The whole family also may have to deal with adjusting to a new geographical area. A solution to these problems is a website that would offer family support. This website would include a live chat for the family to talk with health care providers to answer questions and would provide entertainment information. There would be on-line games and movies for entertaining the kids when they are stuck in the hospital and a list of nearby events and deals for the rest of the family that might just need a break. Our solution to these problems is the Roc Family website.

2. Product Description

The Roc Family website will provide a one stop shop for families of sick children with features for the whole family. The Website will have an intuitive and easy to use interface and run in Google Chrome, Firefox, Safari, and Internet Explorer web browsers. The Roc Family website will provide improved communication and support for families with children suffering from cancer. The families will receive an Android-based tablet that has the Roc Family website link pre-loaded, allowing for ease of use from the start of the hospital stay.

2.1 Key Product Features and Capabilities

The key product capabilities will include the live chat feature, links to on-line games and movies and details on nearby events. Through the Roc Family website, parents will have direct contact to chat with the Roc Solid Foundation team providing a source of information for parents with questions about their child's health care. It would also provide links to free on-line games and movies to offer free entertainment for kids that are stuck in the hospital bed and in need of

relief from boredom. The Nearby Events and Deals page will offer information on current activities in the local area and possible discounts for family members looking for a break during treatments.

2.2 Major Functional Components

The hardware component for this system is only the web server to host the software. The software components include the database, the user authentication, the administration page, user pages, and the chat function. The database will be required to host a variety of information for the website including, but not limited to, games, movies, events, and privacy information. The user authentication page will allow the user to log into their account. The administration page will give the administrator access for updating system with new games, movies, deals, etc. The user pages will display links to games, movies, local events, and local deals. There will also be a chat functionality that allows a user to communicate with the Roc Solid Foundation.

3. Identification of Case Study

There are a few applications out there that already try to help children with cancer and their family. There is CureSearch CancerCare mobile app which helps to keep track of treatment dates, medication schedules, as well as tracking a patient mood and side effects. There is a Pocket Cancer Care Guide that is a list of questions to doctors and answers sorted in categories for each stage of cancer. Simply Sayin is a mobile app that helps medical professionals to explain medical terminology. Proton U is a mobile app that helps prepare pediatric patients for proton therapy. Mobile MyMSK is a mobile app that links to Memorial Sloan Kettering Cancer center that helps track medication, view labs, and more. Although these solutions help cancer patients, none of them help deal with the mental and economical effects of cancer especially when it involves children. The problems like a family feeling isolated, a family having a lack of support, the financial struggles of cancer, and the boredom of children during cancer treatments

may be covered by a combination of solutions but there is not one that helps with all of these problems.

The Roc Family Website could be used by Roc Solid Foundation staff, Roc Solid Foundation volunteers, a patient's family, or the patient themselves. The Roc Solid staff and volunteers could use the website to communicate with parents, answering questions on their child's health or general questions about the hospital stay as well as updating the website. The patient's family could use the Rock Family Website for asking questions of the Roc Solid Foundation staff or volunteers, or look for entertainment for their child or themselves. The child could use the website to entertain themselves during treatment with free on-line games or movies. The Roc Family Website would provide a one stop shop to help families and patients deal with the struggles outside the treatment of their child's illness.

4. Product prototype description

There are a few risks with the Roc Family Website project including a lack of acceptance and possible security issues. The lack of acceptance will be mitigated by making the website very easy to use, especially the chat function. Also, the risk of lack of acceptance could be mitigated by obtaining user feedback on the game, movie, and local events offered on the website. The security issue will be dealt with by using best practices for data security. The prototype will require testing with family accounts and administrative accounts using multiple devices and web browsers, using remote and on-site access.

4.1 Prototype Architecture

The diagram below (Figure 1) shows the functional component diagram of the Roc Family website system. The prototype will be hosted on a Computer Science Virtual Machine which will host the Roc Family Database and the website software.

Major Functional Component Diagram

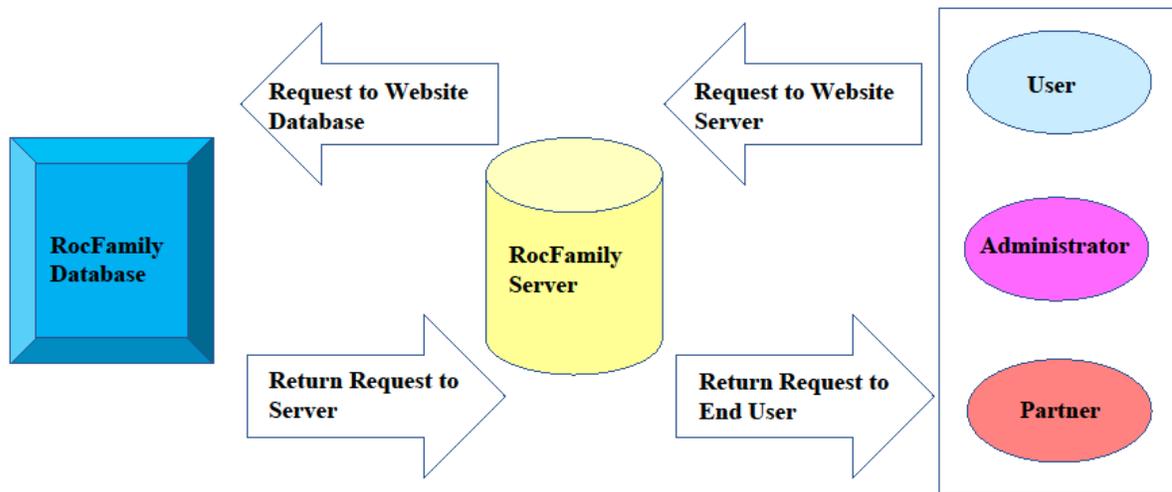


Figure 1

4.2 Prototype Features and Capabilities

The prototype will include the chat functionality, the on-line games and movies, and the local events pages, as well as the user log-in page and the administration page. The Roc Family website will require the user to log in before gaining access to system and the chat functionality, and the login for the chat and the administration pages will be the same. The chat functionality will allow for messages to be sent back and forth and notify the user when a message is received. The chat will create logs of the conversations. The prototype webpage will have administration pages that allow for the deletion, creation, and update of games, movies, and nearby events and deals. The prototype will include separate pages for games, movies, and local deals and events.

4.3 Prototype Development challenges

The security risk and acceptability risk are the same for the prototype and the full system. The key to mitigating these risks is extensive testing and feedback from the user community. The

testing of the interface will be key to ensuring the acceptability and usability of the Roc Family Website.

Glossary

- PHP: Server scripting language
- MySQL: Relational database management system
- Apache2: Web server
- RSF: Roc Solid Foundation

- Roc Solid Foundation - builds hope for children battling cancer and their families by offering opportunities for them to do what they do best – play.
- Roc Solid Play It Forward – builds custom playsets in the backyards of children ages 1 – 8 fighting cancer and completes room makeovers for children ages 8 – 18
- Roc Solid Ready Bag - includes everything a family might need for their unexpected hospital stay – toiletries, a blanket, a prepaid debit card, a journal, a tablet, and more.
- RocFamily - an application that is preloaded onto the tablet provided in the Roc Solid Ready Bag, which offers comfort support for parents and entertainment for children, during this stressful time in their life.

References

CureSearch CancerCare App | CureSearch. (n.d.). Retrieved October 20, 2017, from

<https://curesearch.org/CureSearch-CancerCare-App>

Pocket Cancer Care Guide. (n.d.). Retrieved October 20, 2017, from

<https://www.canceradvocacy.org/resources/pocket-care-guide/>

Simplysayin. (n.d.). Retrieved October 20, 2017, from

<http://www.mediakube.com/simplysayin/>

University of Florida Health Proton Therapy Institute. (n.d.). Retrieved October 20, 2017,
from

<https://www.floridaproton.org/patients-families/pediatric-app/>

Mobile MyMSK. (n.d.). Retrieved October 20, 2017, from

<https://www.mskcc.org/experience/become-patient/patient-portal-mymask/mobile-mymask>