

Lab 1 - RocFamily Mobile Website Platform

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1. Introduction

One of the most difficult moments a family can go through is the diagnosis and treatment of a child with cancer. After those first moments are when RocSolid becomes involved. This is a nonprofit who wants to instill hope in the child diagnosed with cancer and their family. They do this by preparing what they call the “Ready Bag.” These are given to families for their unexpected hospital stay that contain basic essentials. This Ready Bag also contains the Android-based tablet that will come preloaded with the software in development. This will help support families in their unexpected new situation. The family can feel isolated when they suddenly find themselves in a new geographic area. There are new challenges that people who go through this face, such as financial struggles with new medical bills from constant hospitalization, feeling a lack of support, and keeping the pediatric patient from feeling a sense of boredom. Solutions to these new challenges are providing access to games, movies, events for the patient as well as their family, and an easy to access list of events as well as deals. A live chat between the RocSolid team members with the patient and their family will provide support in a time where being fully supported is challenging. The RocFamily Website provides central access to each of these solutions.

2. RocFamily Website Product Description

The RocFamily website will be convenient and easy to use. The website provides a live chat application for parents/guardians that will communicate with a member of the RocFamily staff. This will be available for Chrome, Firefox, Safari and Internet Explorer/Edge web

browsers. The product will have a pre-loaded link on an Android-based tablet in the Ready Bag. This tool will promote communication between RocFamily staff and families. This will save time by eliminating outdated communication methods and will provide a history in order for the family to reference back to in the live chat area.

2.1 Key Product Features and Capabilities

The product will provide real time data such as the chat function, nearby events, and deals for the users. This will not only improve communication, it will also help improve coordination between the users and RocFamily staff. This will provide support for families with children that are suffering from cancer by providing entertainment to everyone in the family. This could be from the movies, the games, or the events that are nearby to the chat function between a RocSolid team member with a family member. The RocFamily staff will be able to list events and deals that are nearby the patient's hospital.

2.2 Major Components (Hardware/Software)

Figure 1 illustrates the major functional components for the MWP. The SQL database and web server will communicate with the website that is preloaded on the Android-based tablet. The software that we will develop will have a chat function, the ability for the admin to update the website, end user capabilities and authentication. Software requirement is a web browser for the website, RocSolid servers and the RocSolid database.

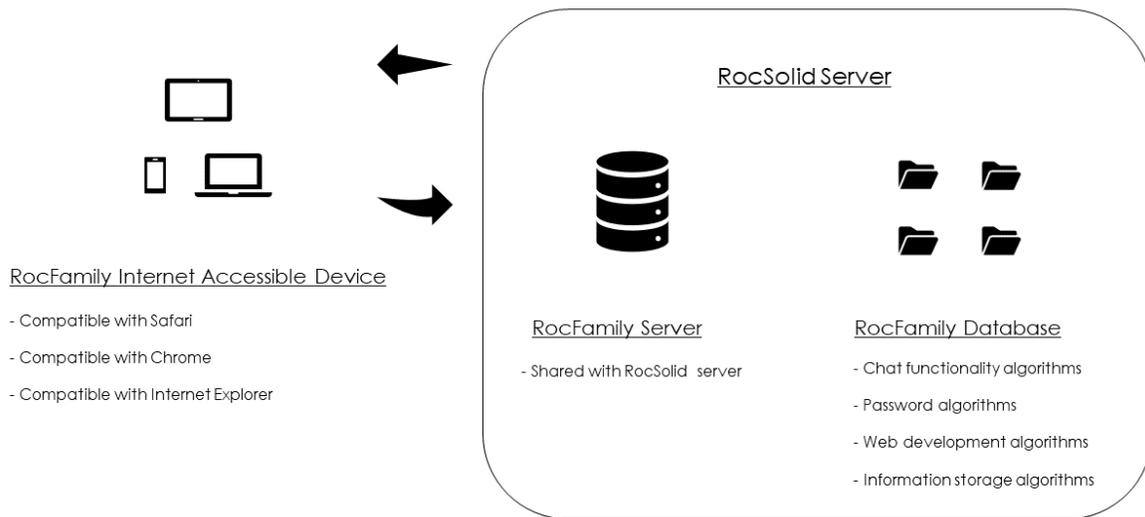


Figure 1

3. Identification of Case Study

Research into the challenges that families face with a pediatric cancer diagnosis brought up multiple applications that help them in their time of need. Taking into consideration the research it is the RocSolid Foundation that offers the best support for the patient and their families. Figure 2 shows the different applications that are in the current market. However, this also illustrates how the RocFamily website meets the demands for each challenge. The challenges that the families are facing are a feeling of isolation, lack of support, struggling financially, and a sense of boredom. This website will be for RocSolid Staff, RocSolid Volunteers, the patient's family, and for the patient themselves.

Features	RocFamily vs. Competitors					
	RocFamily	CancerCare	Pocket Cancer Care Guide	Simply Sayin'	Proton U	Mobile MyMSK
Find Games for Kids	✓	✗	✗	✗	✓	✗
Find Age Appropriate Movies	✓	✗	✗	✗	✗	✗
Look for Support	✓	✓	✓	✓	✓	✓
Find Local Events	✓	✗	✗	✗	✗	✗
Find Coupons and Deals	✓	✗	✗	✗	✗	✗

Figure 2

4. RocFamily Product Prototype Description

The prototype will enable RocSolid Foundation Staff and Volunteers to speak with the families and patients. The families will receive the Android-based tablets that come preloaded with the RocFamily link. This link will connect them to the website in order to communication with the staff, provide access to movies, and provide access to games. The patients will primarily use the device for the movies and games section. Risk mitigation for this product is that it will be easy to use, have a low adoption rate, search for broken links, use best practices for data security and have automated platform control. During the prototype simulation a RocSolid Staff account will be available, as well as the family, and the test account. This will be simulated remotely and on-site.

4.1 Prototype Architecture

The prototype will develop on a CS virtual machine. Software development tools will include Git and a text editor/IDE. Figure 3 shows these items and all components. There will be a database algorithm with a submission script for the live chat and the web site interface. The

build for the prototype will be on a CS virtual machine that will house the database server. This will be where the website prototype will be constructed. The software that will be in development is a chat function, an end user interface, an admin tool interface, and authentication for security.

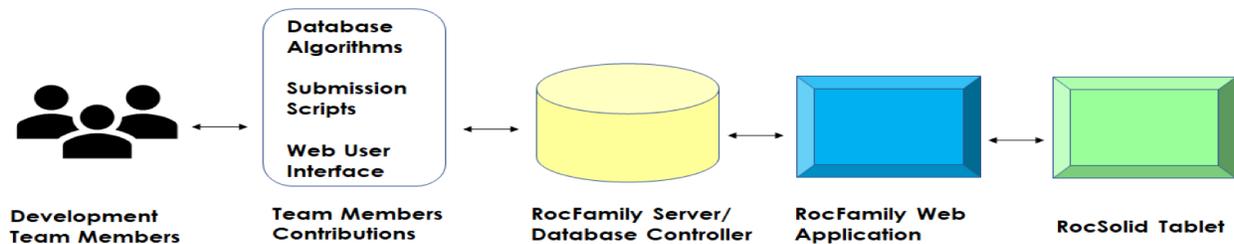


Figure 3

4.2 Prototype Features and Capabilities

The features of the prototype will have chat functionality. This will include logs of previous chats, the ability for users to input and notification when there is a new entry. The administrator account will be able to update the website. They will have the ability to create, delete, and update on the website. The end user will be a touch driven interaction for the interface. The authentication process for logging into the website will provide security. The capabilities for the prototype website is RocFamily integration, database for storing user information and an event calendar that the RocFamily staff can update events. The prototype will also have tester capabilities for the development process, this will include creating fake data for the database and deleting the fake data once testing completes.

4.3 Prototype Development Challenges

The development challenges for the prototype MWP will be integrating with RocFamily,

web application security, testing and deployment. The prototype will need to interact with not only the database for RocFamily, but also the database used by a different RocSolid application. The prototype will access that database to create data for the website prototype. The challenge will be ensuring the database connects to the other RocSolid application's database outside of the testing environment. The challenge for the website security is verifying account information for logging in. This will have to check against a database containing user information. Each of these will be a challenge for the development process to overcome.

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5. Glossary

SQL: Relational database management system

Roc Solid Foundation: builds hope for children battling cancer and their families by offering opportunities for them to do what they do best – play

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.

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.

6. References

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