Group 11: Zion Software

Download Manager

Requirements Engineering

2014

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System and User requirement:

Section 1 Purpose

The purpose of this document is to specify the overall system requirements that will govern the development and implementation of Zion Software. The document will establish the basic guidelines regarding the System capabilities, conditions, interfaces and so on.

Section 2 General System Requirements

2.1 Major System Capabilities

Specify the major system capabilities in terms of availability, device accessibility, and/or technical capability.

MUST HAVE:

- *System is available on the Internet and on Phone-Call*
- *System is available 24 hours per day and 7 days per week*
- *System is able to accept phone payments*

WOULD HAVE:

- *System is accessible by mobile devices*
- *System is able to accept phone and online payments*

2.2 Major System Conditions

Specify major system assumptions and/or constraints

MUST HAVE:

- System must use the Download Manager

-Each Donor must have a personal account on the website

WOULD HAVE:

- System must interface with Bank of America credit card payment system

-System must associate with Paypal in order to facilitate online payment

2.3 System Interfaces

Describe the dependency and relationship requirements of the system to other enterprise/external systems. Include any interface to a future system or one under development. For clarity, a graphical representation of the interfaces should be used when appropriate.

MUST HAVE:

-The Data Donors would have to use the Windows OS as their interfaces in order to be able to upload the 'data' which would be go through the Download Manager interface to be encrypted

-The 'data' will then be 'crushed' (compressed) and be available for Customer Purchase

-The customers will receive a 'decryption' key in order to unlock the 'data' that is compressed and encrypted

WOULD HAVE:

- The 'decryption' key would be time sensitive and would expire after the customer has opened the 'data'

-Data donors can upload the files using other interfaces that are not Windows OS

Section 3 Policy and Regulation Requirements

3.1 Policy Requirements

MUST HAVE:

- *The identity of the Data donors are not revealed due to privacy and identity issues*
- *Data donors must have an account in the system, with their personal information*
- *Data donors are liable to the quality of the 'materials' that they donate*

WOULD HAVE:

- *Each piece of 'data' that has been donated by a donor must undergo inspection as to make sure that it is what the donor has claimed for it to be, and also for quality of the data (especially in cases of video and audio files)*

Section 4 Security Requirements

MUST HAVE:

- *Each and every donor and customer must have an account on the system, with their personal information*
- *Sensitive customer information would be kept in private*
- *Customer orders are sensitive information and are not disclosed to a third party*

WOULD HAVE:

- *It is guaranteed that the personal information of the customers will only be used for the purposes of the business exchange that they participate in and nothing else*

Section 6 Initial System Architecture

Specify the data platform, hardware, software, programming languages, tools and operating system requirements for the application or project.

MUST HAVE:

- *The specialized hardware requirements that must be purchased or upgraded prior to development, or in support of the implementation, of the application or project would be a few laptops with Windows OS in order to run the Download Manager and coding the programs*

- *The specialized software requirements would be an updated version of JGRASP and NETBEANS that must be purchased or upgraded prior to development, or in support of the implementation, of the application or project.*

- *The main programming languages would be JAVA and C++ and tools selected for the development of the application or project would be JGRASP and NETBEANS*

WOULD HAVE:

- *The ultimate goal is for the app to run on any interface therefore, network/operating system or combination of network/operating systems that will be used for the development of the application of project*

- *Make the application available to mobile devices such as android and iphones*

This section is subject to further update based on the progress of the company and feedback from the customers and donors

Section 7 References

Provide a list of all documents and other sources of information referenced in this document and utilized in its development. Include for each the document number, title, date, and responsible office/author.

Document No.	Document Title	Date	Author

Section 8 Document Revision History

Identify revisions to the document starting with initial creation. This section should be updated when an approval is required (i.e. initial creation, change request, new mandated change, etc)

Version	Date	Name	Description

Functional Decomposition:

Product Release Descriptions:

Releases	Version Details
Version 1.0	- Inclusion of an online website for those with possible but limited internet usage (i.e. either data usage that cannot handle large downloads or access to internet only through a public place and not their own home) to be able to order the software they need. - A phone service for those with no internet connection that allows them the same ability to order whatever data or software they need. - Initial inclusion of smaller companies that will use our services to provide to a larger base of customers - Strong encryption and Decryption software that will allow for secure transfer of data. - Only offering a single file type for downloads -
Version 1.5	- A larger inclusion of companies that would allow a larger selection of data for customers to purchase. - App will be developed allowing phones to be download device. - Increasing security by making log-in necessary and making files unmovable after being decompressed. - Begin using multiple file types. -

Gantt Charts:

ID	Task Name	Resource	Start	Finish	Duration
1	Start		3/24/2014	-	0 day
2	Review Requirements		3/24/2014	3/24/2014	1 day
3	Initial Designs Possibilities		3/25/2014	3/25/2014	1 day
4	Decide on Design		3/26/2014	3/26/2014	1 day
5	Code		3/27/2014	3/28/2014	2 day
6	Test		3/31/2014	4/4/2014	5 day
7	Finish		-	4/4/2014	0 day

Figure 1: Release Cycle Gantt Chart

ID	Task Name	Resource	Start	Finish	Duration
1	Website	David	3/24/2014	4/4/2014	10 days
1.1	Review Requirements		3/24/2014	3/24/2014	1 day
1.2	Decide on Basic Functions		3/25/2014	3/26/2014	2 days
1.3	Design Appearance		3/27/2014	3/27/2014	1 day
1.4	Build		3/28/2014	3/28/2014	3 days
1.5	Test		3/31/2014	4/4/2014	3 days
2	Compressor	Alex	3/24/2014	4/4/2014	10 days
2.1	Review Requirements		3/24/2014	3/24/2014	1 day
2.2	Design Functionality		3/25/2014	3/27/2014	3 days
2.3	Build		3/28/2014	4/1/2014	3 days
2.4	Test		4/2/2014	4/4/2014	5 days
3	Decompressor	Allen	3/24/2014	4/4/2014	10 days
3.1	Review Requirements		3/24/2014	3/24/2014	1 day
3.2	Design functionality		3/25/2014	3/27/2014	3 day
3.3	Build		3/28/2014	4/2/2014	3 days
3.4	Test		4/2/2014	4/4/2014	5 days
4	Downloading	Swarna	3/24/2014	4/4/2014	10 days
4.1	Review Requirements		3/24/2014	3/24/2014	1 day
4.2	Design Servers		3/25/2014	3/26/2014	2 day
4.3	Create Servers		3/27/2014	3/28/2014	2 day
4.4	Set up Downloading		3/31/2014	4/1/2014	2 day
4.5	Test		4/2/2014	4/4/2014	3 days
5	Database		3/24/2014	3/28/2014	5 days
5.1	Review Requirements	Dhruvil	3/24/2014	3/24/2014	1 day
5.2	Design Database		3/25/2014	3/25/2014	1 day
5.3	Create Database		3/26/2014	3/26/2014	1day
5.4	Test Database		3/27/2014	3/28/2014	2 days

Figure 2: Version 1.0 Gantt Chart

RACI Model:

Tasks	Build Engineer	QA Engineer	Legal Analyst	Project Manager	Technical Support	Logistics Manager
Write encryption/ decryption schemes	R	A	C	C	I	
Implement file encryption method	R	R	I	A	I	
Implement key exchange method	R	I	I	A	I	
Link customer accounts with central database	R	I		A	C	
Process payments from customers and rewards for donors	C		C	A	I	R
Provide help documents and other application support to customers and partner companies	C	C	I	A	R	C
Organize customer orders for processing	I		C	I	A	R
Develop proprietary compression/ decompression schemes	R	A		C	C	
Build modular code for program use on multiple devices	R	A	C	C	C	I
Negotiate secure data transmission between application and database	I		I	R	C	A
Verify integrity of physical layer for data transmission	C	R		A	R	

Swimlane:

Proposal
Development
Main Facility(Downloading Software)
User Request
Company Action
Confirmation
Resourced Company
Download Management Company
User
1 appealing to small indie companie & receiving approval
2 Developing Software with Encrypting and Compressing
3 making it available to multiple devices
4 Request for software sent via mail
5 Response by sending software
6 Acknowledment sent by User