

NEWS PHONE APPLICATION

Software Requirements Specification

COP 4331 Section 1
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GROUP 8

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SOFTWARE REQUIREMENTS SPECIFICATION

Modification history:

Version	Date	Who	Comment
v1.0	09/16/10	Jason Heintz	Initial update
v2.0	09/19/10	Aaron Birencwaig	Update
v3.0	09/21/10	Jason Heintz	Integration of all parts

1 Introduction

1.1 Software to be Produced

Everyday people depend on their smart phones for a variety of things from social networking to maintaining their finances, so it is only natural to provide them with a way to stay up to date with the current news and information. We will be producing an Android operating system based mobile application that will replicate a real world news website. This mobile application will contain the same type and amount of information as a regular news website, but it will provide the information to the user on their smart phone. The product will be an all inclusive application that can be loaded onto any smart phone running an Android operating system.

1.2 Reference Documents

- Concept of Operations
- Project Management Plan

1.3 Applicable Standards

None

1.4 Definition, Acronyms, and Abbreviations

None

2 Product Overview

2.1 Assumptions

We will assume that all users who chose to install the News Phone application will be using either an Android phone emulator or an android phone running software versions of 2.0, 2.1, or 2.2. We will also assume that there is more than one megabyte of free space available on either the hard disk of the computer and/or the android phone of the user. Since our program is relatively simple. We assume that any processor above a Pentium IV or any android phone running the versions of software listed above can be fully capable of running our News Phone application nearly flawlessly.

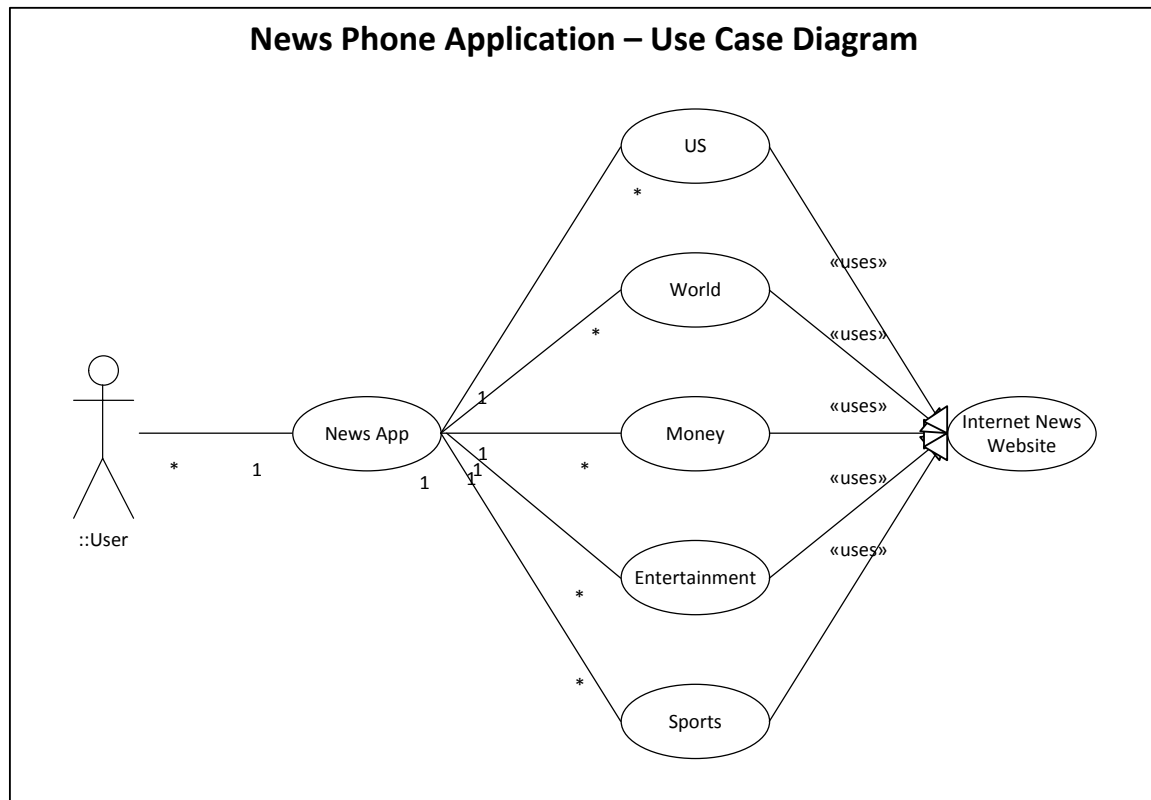
2.2 Stakeholders

For the News Phone application there will be a couple of different stakeholders. The first group of stakeholders is the developers. The six of us developing this software will have the most interest in the software because it is our class project. The next stakeholder will be our client. Our client for this project is our teaching assistant, Himanshu Pagey. He is the next person most interested in the project because he is representing a customer who we are creating the software for. Our final stakeholder is our Professor, Dr. Damla Turgut, she is the ultimate person we are creating this software for.

2.3 Event Table

Event Name	External Stimuli	External Responses	Internal data and state
Opening News Phone	Clicking on the Phone application	A single image depicting a single important headline news item, with a drop down menu. Below this should be 5 sections US, World, Money, Entertainment and Sports.	Data and picture will be gathered from the news website. It will be in the beginning News App state.
Opening drop down bar	Clicking on the drop down bar	The drop down bar will provide the user with the options to read about US, World, Money, Entertainment and Sports	This provides the user the option to transfer between states, if the user decides to read more about a certain topic.
Opening US news	Clicking the US news Option	The response would be the display of 5 items of US news and then the option to show more.	This would be in the US news state; the data would come from the news website. The option to show more would simply provide more articles from the same section of news.
Opening World News	Clicking the World news Option	The response would be the display of 5 items of World news and then the option to show more.	This would be in the world news state; the data would come from the news website. The option to show more would simply provide more articles from the same section of news.
Opening Money	Clicking the Money news Option	The response would be the display of 5 items of Money news and then the option to show more.	This would be in the Money news state; the data would come from the news website. The option to show more would simply provide more articles from the same section of news.
Opening Entertainment News	Clicking the Entertainment news Option	The response would be the display of 5 items of Entertainment news and then the option to show more.	This would be in the Entertainment news state; the data would come from the news website. The option to show more would simply provide more articles from the same section of news.
Opening Sport News	Clicking the Entertainment Sport Option	The response would be the display of 5 items of Sport news and then the option to show more.	This would be in the Sport news state; the data would come from the news website. The option to show more would simply provide more articles from the same section of news.
Exit state	This is by clicking the button to leave the phone app program	The response would be exiting the News Phone Application	This is the exit state; this will simply allow the user to leave the phone News application program. The next time the phone application is opened, it will begin in the Open News Phone State.

2.4 Use Case Diagram



2.5 Use Case Descriptions

The use case diagram for the News Phone Application is very simple and straight forward. Many users will be able to use the application. Then the application will interface with the five different sections of news being provided. The single application will get many news articles for each topic. Each news topic when called upon will get its news sources directly from an internet news website. This action of getting the news articles from the website will be of the type include, because it will be automatically done when the News Phone Application goes to get information for each news section.

3 Specific Requirements

No: 001
Statement: The News Phone Application shall display content on the following five areas: US, World, Money, Entertainment, and Sports
Source: Client
Dependency: None
Conflicts: None
Supporting Materials: Use Case Diagram
Evaluation Method: The user will be able to view news content on the five different areas.
Revision History: Created, 09/21/10, Jason Heintz
No: 002
Statement: The News Phone Application shall depict a single important headline news item at its home screen.
Source: Client
Dependency: None
Conflicts: None
Supporting Materials:
Evaluation Method: When the user first opens the News Phone Application, on the home screen there will be a picture

corresponding to a recent important news article.
Revision History: Created, 09/21/10, Jason Heintz
No: 003
Statement: The News Phone Application shall have a drop down available that lists all news sections covered.
Source: Client
Dependency: Requirement 001
Conflicts: None
Supporting Materials:
Evaluation Method: Inside the News Phone Application the user will be available to select a drop down lists that contains links to all the news sections covered by the application.
Revision History: Created, 09/21/10, Jason Heintz
No: 004
Statement: The News Phone Application shall display, at the minimum, five news items per news section covered.
Source: Client
Dependency: Requirement 001
Conflicts: None
Supporting Materials:
Evaluation Method: Inside the News Phone Application the user will be available to view at least five news articles for every news section.
Revision History: Created, 09/21/10, Jason Heintz
No: 005
Statement: The News Phone Application shall give the user the ability to show more news articles for each news section covered.
Source: Client
Dependency: Requirement 004
Conflicts: None
Supporting Materials:
Evaluation Method: Inside the News Phone Application the user will be able to choose if they wish to see more than five news articles per section covered.
Revision History: Created, 09/21/10, Jason Heintz
No: 006
Statement: The News Phone Application shall display an error message whenever the application fails to connect to the internet.
Source: Developers
Dependency: None
Conflicts: None
Supporting Materials:
Evaluation Method: If the host phone running the application loses its internet connection, the application will display an error message stating the problem.
Revision History: Created, 09/21/10, Jason Heintz
No: 007
Statement: The News Phone Application shall display content for every link within five seconds upon execution of that link.
Source: Client
Dependency: None
Conflicts: None
Supporting Materials:
Evaluation Method: When any link inside the News Phone Application is selected, the corresponding content shall display in no more than five seconds.
Revision History: Created, 09/21/10, Jason Heintz

3.1 Functional Requirements

We will strive to make the Phone application software perform flawlessly. We will do this by only using stable news sources as sources for our news articles that we will acquire. If there are any errors in the input or a problem exporting the output, we would like our app to output an error message instead of freezing, the same also in the case that the phone has no reception or service. The application will not input needless articles that are irrelevant to what we would like to provide for the users reading; this means that our input to output ratio will not be dramatically different.

3.2 Interface Requirements

The News Phone application will be ran on an Android Operating System based phone, and will have to interact with that software. The application will also interface with the internet in order to obtain up-to-date news information. For our inputs to the software we will pull news information from one or several different news websites, to make up the following news sections: US, World, Money, Entertainment, and Sports. Then we will output all of the information to our smart phone application. Data will be of three different types, it will either be: a picture, text, or a hyperlink. Wherever applicable a picture will be displayed with a news article that is in plain text. Then when possible a hyperlink will be provided to allow the user to gain further information on the topic. All news information will be updated every 5 minutes at the most.

3.3 Physical and Environment Requirements

The News Phone application must run on either: Android phone emulator software or any Android phone running the following versions: 2.0, 2.1, or 2.2. The application should not be run on anything other than what is stated above, if run on anything other than listed above, it is not possible to predict the outcome. The location of the equipment that is to be used is either a computer or a cell phone. So if the user wants to make sure that the application is working, it is best to keep the computer free of viruses or anything that would inhibit the application from working properly. In order to keep the phone operating properly, it needs to not be damaged in such a way that the software could not run.

3.4 Users and Human Factors Requirements

The News Phone application will support any type of user. A user will only need to have the general knowledge of the workings of their smart phone in order to use the application. For this application, there will be no necessary training nor documentation because the application will only be providing pictures and texts with links. At this point, no potential misuse to the system can be seen because it will only contain text and links.

3.5 Documentation Requirements

The News Phone application will be extremely simple to use. The users of this software will only have to possess nominal technological skills in order to use it properly. This is not an application that requires any extensive knowledge in any applications nor will it only be usable by skilled users. This program will not require a read me file because it is very simple to use. If a readme file is requested one will be made at that time.

3.6 Data Requirements

The News Phone application will crawl one or several news websites and retain information regarding top news stories. It will then post all obtained information in a smart phone application format. All information will be updated every five minutes at the most. The application will store up to 10 news articles for each section, and any corresponding pictures for each article.

3.7 Resource Requirements

The News Phone application is not extremely difficult to make, but it will need intermediated level programming skills with above beginner level skills in object oriented programming. The application will be programmed on machines that are running the windows operating system, using the java compiler, Eclipse. The actual software programming will either be conducted at UCF and/or the dwellings of the team members that are associated with this project. The time frame of this programs completion date is within the next three months and the funding for the product is solely from the students who are involved in developing it.

3.8 Security Requirements

Because all information displayed by the News Phone application will be obtained from the internet via free websites the posted information will not have to be controlled. Due to this there will be no need for controlled access to the application. Also, since all information will be current news all information will be the same for every user and no data will need to be stored on a per user basis. The News Phone application will run completely isolated from all other applications and will only interface with the Android operating system to access the internet to get current news information. Because all information is current and up-to-date news articles there will be no need to store backups of any information that the application displays. Therefore since no information is pertinent and is required to be backed up there is no need for recovery of any information. If there is any damage to the smart phone or the operating system itself, the News Phone application can be downloaded once the damage is fixed. All damage to the smart phone or operating system cannot be controlled or prevented by the software and has no direct correlation.

3.9 Quality Assurance Requirements

The News Phone Application will be accessible when there is a non-interrupted connection to the news source in which it is accessing; this means that if the source goes down, then the application cannot function. There is no need for advanced security as there will be no passwords or personal information that is transferred via this application. The maintenance for this device should take no more than thirty minutes for new versions to be installed. The portability is phenomenal as the application can travel where the phone travels providing that the phone has internet service. We can demonstrate the quality by doing tests to make sure that all links work properly and that it works at different times and during repeated tests. If there is to be a fault, such as the source as to where we are getting our news is temporarily not working, our application is to post an error. This should fix itself as soon as the news source fixes its error. The application will be available for news viewing twenty four hours a day, seven days a week; the response time should take no more than five seconds for every link accessed.

4 Supporting Material

Client Requests:

- A single image depicting a single important headline news item.
- Above this a drop down that lists all sections of a news website
- 5 sections US, World, Money, Entertainment and Sports on the front page.
- Display 5 items per section and then display show more.