Lab II -version II Product Specification Outline

CS 411W Lab II Version 3

Prototype Product Specification

For

NGage

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1 Introduction

The lack of student involvement and engagement in campus communities, events and organizations can negatively impact academic performance. According to college atlas 30% of college freshmen drop out after their first year of college. Entry-level and transfer students find it difficult to achieve success and struggle in their chosen programs. The problem begins from not being informed on the resources the student needs. This sort of the problem continues to be more common amongst a high school student, for they are not given a chance to leave or to guide themselves. Not only lack of information but also they cannot find every information they need in organized form.

1.1 Purpose

Students are not aware and informed on most topics before they come to school. Information such as where to find tutors? Students are unaware of events, resources and organizations on campus and find it difficult to find optimal, safe and affordable living situations on and off campus. Renting a house or apartment, as a new college student, can be daunting. Most of the housing have twelve, six or three-month lease agreement. Most landlords require one-year lease if there is any problem with the house, the tenants have to stay until the lease ends. The other option is to break the lease which it can be potential expense. Students who are not from Hampton Roads are unaware of local restaurants and entertainment.
1.2 Scope

NGage as a single platform to get students engaged in the campus community and the outside campus environment. This includes consolidated live feed of all upcoming events. NGage will post and update live feed instantly so that the user can get any information right away. Students can get information about on and off campus housing opportunities, complete with verified first hand reviews from students. NGage’s specific target audience is college students at ODU. Online engagement maximization helps students on information of all sorts and one part of a down side for that is procrastination. As Figure 1 Problem flow diagram shown the process is not organized and inviting to grasp information. With time spent on social media needlessly delaying other responsibilities. NGage is a web based design with a concept of social media but address specifically to a university student. NGage will be a tool that will combined educational and non-educational information together. This includes information such as clubs on campus, leisure activities, needs academic help, and housing.
As it shown in Figure 2.1 solution flow NGage as a single platform to get students engaged in the campus community and the outside campus environment. This includes consolidated live feed of all upcoming events. We will post and update live feed instantly so that the user can get any information right away. Students can get information about on and off campus housing opportunities, complete with verified first hand reviews from students. NGage’s specific target audience is college students at O.D.U.
Even if NGage try to accommodate a different type of category, it does have its limit. Students cannot use the site to reserve a tutor or register for any organization or to rent a house. NGage also does not deal with any type of fees with its users in this case the students.
1.3 Definitions, Acronyms, and Abbreviations

Alert (email/text): Alert messaging (or alert notification) is machine-to-person communication that is important or time sensitive. An alert may be a calendar reminder or a notification of a new message.

AngularJS: A JavaScript-based open-source front-end web application framework maintained by Google.

Cookie: (also called HTTP cookie, web cookie, Internet cookie, or browser cookie) a small piece of data sent from a website and stored on the user's computer by the user's web browser while the user is browsing.

Git: version control system for tracking changes in computer files and coordinating work on those files among multiple people.

GitLab: web-based git repository manager the includes wiki and issue tracking features.

Gradle: an open-source build automation system that was designed for multi-project builds.

JavaScript: a programming language commonly used in web development where the code is processed by the client’s browser.

MySQL: an open source multi-user database management system.

ODU: Abbreviation for Old Dominion University

Platform: an integrated set of packaged and custom applications tied together with middleware.

RSVP: a process for a response from the invited person or people
Student involvement: the amount of physical energy students exerts and the amount of psychological energy they put into their college experience.

**Ubuntu:** open-source Linux operating system.

**Virtual machines:** an emulation of a computer system that provide functionality of a physical computer.

**Web Application:** a *client server computer program* in which the client (including the user interface and client-side logic) runs in a *web browser*.

**Wiki:** a website on which users collaboratively modify content and structure directly from the web browser.
1.4 References


“Interview with Dan Zimmerman” March. 17 2017

Lab 1-Team Silver Descriptive Paper by Mewael Tsegaye.


2 General Description

Using the NGage platform students can log-in and customize their personal live feeds. Students can receive updates on their searches such as school activities through clubs and organization, housing information, campus events. By providing email address students can request a particular update from the site. The main thing that differentiate NGage from the other countless social media platforms is it includes an independent party reviews about housing and organization and restaurant as well.

Students cannot use the site to reserve a tutor or register for any organization or to rent a house. NGage also does not deal with any type of fees or payments.
2.1 Prototype Architecture Description

As shown in Figure 2.1 the major components of NGage include website, database server, Social media API, and internet enabled device.

![Figure 2.1 Major Functional Component Diagram](image)
2.2 Prototype Functional Description

The prototype is going to be hosted on an Ubuntu 16.04 Web server, will be written using Angular. Regarding the database NGage will utilize a MySQL database to store user account information, status updates, events, and apartment-listings. Any computer with Internet access and web browser can access NGage. The NGage prototype will be partially functional, it does not include the features of Organizers can manage their own page, registered user can join organizations and R.S.V.P for event, and student’s comments and direct messaging. As it shown in the figure 3.1 below the components are describes in the major fully functional, partial and eliminated component with the comparison with real world product and prototype version.
<table>
<thead>
<tr>
<th><strong>Real World Product</strong></th>
<th><strong>Prototype</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Students can search Information on Organizations and grocery stores,</td>
<td>• Guests can use the site</td>
</tr>
<tr>
<td>• Students can create user accounts to save their preferences and searches</td>
<td>• Search Information and get updates about housing on campus and near to campus</td>
</tr>
<tr>
<td>• Organizer can manage their own Page on the site if they choose</td>
<td>• Tutoring hours will be posted for each department</td>
</tr>
<tr>
<td>• Users can Post comments about their personal experience with an apartment, house, or dorm</td>
<td>• A list of all clubs and organizations will be displayed with current contact information.</td>
</tr>
<tr>
<td>• Registered user can join Organizations and R.S.V.P for events</td>
<td>• Students can use the “contact us” feature to request information or sign up for email</td>
</tr>
<tr>
<td>• Administrator can upgrade a registered user to an organizer</td>
<td>• Organizer can use “contact us” feature to update</td>
</tr>
<tr>
<td></td>
<td>• Campus events will be posted in the live feed</td>
</tr>
<tr>
<td></td>
<td>• Live feed can be filtered by category</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Partially Functional Components</strong></th>
<th><strong>Eliminated Components</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Food, attractions and housing can be looked up on a map, students can copy and paste address into another service to get directions.</td>
<td>• Students Direct Messaging</td>
</tr>
<tr>
<td></td>
<td>• Realtors may post listings</td>
</tr>
<tr>
<td></td>
<td>• Organizers can manage their own page</td>
</tr>
<tr>
<td></td>
<td>• Students comments and direct messaging</td>
</tr>
<tr>
<td></td>
<td>• Registered user can join Organizations and R.S.V.P for events</td>
</tr>
</tbody>
</table>

*Figure 3.1 Prototype vs Real World Product Comparison*
2.3 External Interfaces

The NGage Web Application Prototype will serve as a glance view of the finished product to give and imply sense of direction on how the NGage will look.