Operational Concept Description (OCD)

1 Student at a Time

Team 7

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Tanner Smith        Trainer

10/23/2020
## Version History

<table>
<thead>
<tr>
<th>Date</th>
<th>Author</th>
<th>Version</th>
<th>Changes made</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/23/20</td>
<td>DKL</td>
<td>1.0</td>
<td>● This document is the first version of the OCD document.</td>
<td>● Document to provide information on the proposed new system, system</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>capabilities, comparing to old system, benefits of the new system, how new</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>system impacts the organization</td>
</tr>
</tbody>
</table>
# Table of Contents

Operational Concept Description (OCD) ................................................. 1

Version History ................................................................................. 2

Table of Contents .............................................................................. 3

Table of Tables ................................................................................ 4

Table of Figures ................................................................................ 5

1. Introduction .................................................................................. 7
   1.1 Purpose of OCD ........................................................................ 7
   1.2 Status of the OCD ..................................................................... 7

2. Shared Vision ............................................................................... 8
   2.1 Benefits Chain .......................................................................... 9
   2.2 System Capability Description ............................................... 9
   2.3 System Boundary and Environment ...................................... 10

3. System Transformation ................................................................. 11
   3.1 Information on Current System .............................................. 11
      3.1.1 Infrastructure .................................................................... 11
      3.1.2 Artifacts ............................................................................ 11
      3.1.3 Current Business Workflow .......................................... 11
   3.2 System Objectives, Constraints and Priorities ....................... 12
      3.2.1 Capability Goals ............................................................. 12
      3.2.2 Level of Service Goals .................................................... 13
      3.2.3 Organizational Goals ..................................................... 13
      3.2.4 Constraints ...................................................................... 13
      3.2.5 Relation to Current System .......................................... 14
   3.3 Proposed New Operational Concept ...................................... 15
      3.3.1 Element Relationship Diagram ..................................... 15
      3.3.2 Business Workflows ...................................................... 16
   3.4 Organizational and Operational Implications ......................... 17
      3.4.1 Organizational Transformations .................................... 17
      3.4.2 Operational Transformations ........................................ 17
Table of Tables

Table 1: The Program Model 7
Table 2: Capability Goals 11
Table 3: Level of Service Goals 12
Table 4: Relation to Current System 13
Table of Figures

Figure 1: Benefits Chain Diagram 8
Figure 2: System Boundary and Environment Diagram 9
Figure 3: Current Business workflow for Admin 10
Figure 4: Current Business workflow for User 11
Figure 5: Element Relationship Diagram of New Website 14
Figure 5: Business Workflow with Proposed New Website 15
1. **Introduction**

1.1. **Purpose of the OCD**

This document provides, in detail, the shared visions and goals of the stakeholders of the 1 Student at a Time (1ST) organization. The success-critical stakeholders of the project are Destiny Batton as the client, students in the Los Angeles college community, as the users of the project, and the students of USC CSC1577a Team 07, as the development team.

1.2. **Status of the OCD**

This is the first version of the OCD document. It represents the current prototype of the new system and the features set to be developed by discussing with our client Destity Batton. After discussing with our client we have set a clear set of capability goals, organizational goals, expected benefits, etc.
2.  Shared Vision

Table 1: The Program Model

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Representative and Organization</th>
<th>Initiatives</th>
<th>Value Propositions</th>
<th>Beneficiaries</th>
</tr>
</thead>
</table>
| Client             | Destiny Batton, 1 Student at a Time | - Update website using new feature  
- Reply to users in comment section | - Help as much users as possible with resources  
- Have system that is useful to users  
- Better communication with users | Users, 1 Student at a Time |
| Users              | N/A, N/A                        | - Comment about a resource to get more information  
- Search for a resource | - Need resources in housing, food, mental health, or education  
- Need more information from 1ST organization | Users |
| Development Team, IIV&V | Team 07, USC                   | - Develop and design the new website  
- Validate all conditions are met and assure quality | - Satisfy the client, users | Client, Users |

**Note:** Users representative and organization is N/A because there is no particular user. It is anyone who is in the Los Angeles college community.
2.1. Benefits Chain

![Benefits Chain Diagram]

**Figure 1: Benefits Chain Diagram of new website for 1ST**

2.2. System Capability Description

The new 1 Student at a Time (1ST) system is a website where users can find information about resources available in housing, food, mental health, and higher education. Currently the intended users are college students in the Los Angeles college community who have been impacted by the COVID-19 pandemic or in need of assistance. Users will have features such as creating a login, commenting on resources pages, searching the website, donating to the 1ST organization. There will be additional sets of features available to the admin of the website, who will be a member or members of the 1ST organization. These features are edit the comment sections of the resources page, changing content of the website, and uploading YouTube videos.

Because of the current pandemic all Los Angeles college campuses are closed for academia. That means students do not have the on campus resources such as on campus jobs, tutors, to support themselves to thrive in higher education. Because 1ST is a non-profit organization, there will be no worry for the users about cost. The organization is to help provide resources that can positively impact the users though this pandemic. Users will use this new system because it provides multiple resources directly for their demographic which is college students in Los Angeles. Also the system doesn’t focus on one particular area students may need
help in. It focuses on four main essential areas to thrive in higher education, which makes users inclined to use the system more.

Because the 1ST is a non-profit organization, there are no direct competitors for the market. There are many other non-profit organizations in the Los Angeles community that are hoping to guide people in need but 1ST is focused on college students. Some of the other nonprofit organizations include Southern California Association of Non Profit Housing, National Runaway Safeline, etc. 1ST goal is to bring these resources all together in one website.

### 2.3. System Boundary and Environment

![System Boundary and Environment Diagram of 1ST new website](image)

**Figure 2: System Boundary and Environment Diagram of 1ST new website**
3. **System Transformation**

3.1. **Information on Current System**

3.1.1. **Infrastructure**

Currently 1ST does have a website but it is not fully functional, that is one of the reasons why we are building 1ST a new website from the ground up. It was built using the free version of Wix (https://1stlainitiative.wixsite.com/1stla). Users may use their own hardware such as laptop or smartphone to access the website using a web browser. A stable internet connection is needed to access the current website.

3.1.2. **Artifacts**

- **Wix**: Wix is an artifact used by the 1ST to host and update the current website.
- **Web Browser (Google Chrome, Safari, Firefox, Internet Explorer)**: Users and admin use a web browser to access the website.

3.1.3. **Current Business Workflow**

![Figure 3: Current Business workflow Admin](image.png)
Because the current website doesn’t have any features other than viewing the website, the business workflow is very simple. All users can do is view the different pages on the website.

### 3.2. System Objectives, Constraints and Priorities

#### 3.2.1. Capability Goals

<table>
<thead>
<tr>
<th>Capability Goals</th>
<th>Priority Level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OC-1 Sign up, Log In, Out</strong>: Users are able to sign up for an account providing their full name, email and password. After signing up for an account, users are able to log in and out using the credentials they provided during sign up.</td>
<td>10 / 10</td>
</tr>
<tr>
<td><strong>OC-2 User / Admin Commenting</strong>: After logging into their account, users are able to comment in each of the resources pages. Users may delete their own comments if wanted. Admin are also able to comment in each of the resources pages. Admin are able to delete not only their own comments but everyone one’s comments.</td>
<td>10 / 10</td>
</tr>
<tr>
<td><strong>OC-3 User Donations</strong>: Users may donate to the 1ST organization through the donations page.</td>
<td>8 / 10</td>
</tr>
</tbody>
</table>
3.2.2. Level of Service Goals

Table 3: Level of Service Goals
WinWin: http://greenbay.usc.edu:5201/project/41

<table>
<thead>
<tr>
<th>Level of Service Goals</th>
<th>Priority Level</th>
<th>Referred WinWin Agreements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability</td>
<td>Must Have</td>
<td>WC-239, WC-206</td>
</tr>
<tr>
<td>System Response Time</td>
<td>Must Have</td>
<td>WC-242, WC-241, WC-240</td>
</tr>
<tr>
<td>Information Correctness</td>
<td>Must Have</td>
<td>WC-207, WC-272, WC-271</td>
</tr>
</tbody>
</table>

3.2.3. Organizational Goals

OG-1: Give users a professional website with more friendly UI/UX
OG-2: Give admin the ability to easily edit website without having to code
OG-3: Simplify the process of communicating with admin
OG-4: Simplify the process for users searching for resources

3.2.4. Constraints

CO-1: Mobile and Computer Browser Friendly: The new website must be viewable from both mobile and computer browsers. The browsers are Safari, Google Chrome, Firefox, Internet Explorer.
## 3.2.5. Relation to Current System

### Table 4: Relation to Current System

<table>
<thead>
<tr>
<th>Capabilities</th>
<th>Current System</th>
<th>New System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roles and Responsibilities</td>
<td>- Available through the web</td>
<td>- Available through the web</td>
</tr>
<tr>
<td></td>
<td>- No Resources available</td>
<td>- Resources available</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Search for resources</td>
</tr>
<tr>
<td>User Interactions</td>
<td>- Less user friendly</td>
<td>- Friendly UI/UX</td>
</tr>
<tr>
<td></td>
<td>- No features. Only view the website.</td>
<td>- More features to interact with such as commenting, searching, viewing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>uploaded YouTube videos by admin</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>- Web based hosted on Wix</td>
<td>- Web based hosted on Firebase</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Features not restricted to ones provided by Wix</td>
</tr>
<tr>
<td>Stakeholder Essentials and</td>
<td></td>
<td>- Accessible to all users</td>
</tr>
<tr>
<td>Amenities</td>
<td></td>
<td>- Assures fast communication through instantly available comments</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Admin features only available to admin permission accounts</td>
</tr>
<tr>
<td>Future Capabilities</td>
<td>N/A</td>
<td>- Live chat with users</td>
</tr>
</tbody>
</table>
3.3. Proposed New Operational Concept

3.3.1. Element Relationship Diagram

![Element Relationship Diagram of New Website]

Figure 5: Element Relationship Diagram of New Website
3.3.2. Business Workflows

Figure 6: Business Workflow with Proposed New Website
3.4. Organizational and Operational Implications

3.4.1. Organizational Transformations

After the new website is implemented, there will need to be at least one admin from the 1ST organization to reply back to users, update resources, and content of the website. The person does not have to know how to code because through the admin feature, there will be no need to code to edit the content of the website. The content include, pictures and text in the home page, resources in all four of the resources pages, and new page.

After the new website is implemented and 1ST wants to change the design of the website that isn’t included in the admin feature, they will need to hire a developer who knows REACT, Express JS, Firebase to change the design.

3.4.2. Operational Transformations

- No need for 3rd party applications such as email for users to communicate with admin/1ST organization. They can simply use the comment sections on the respective resource page they have a question about. Also, past questions and answers will be viewable to users, so there are no repeated questions.
- 1ST does not have to use Wix to update the content of their website anymore. They can use features that the admin has on the new website to change the necessary content.