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| *Course Title and Term* | CEN 4010 Principles of Software Engineering, Spring 2018 | |
| *Document Name* | Milestone 1 Project Proposal and High-level description | |
| *Team Name/Project Name* | Group 7 - Web Store for Electronic Lab at College of Engineering | |
| *Team Number* | Group 7 | |
| *Names of Students* | Ayah Elshaikh – aelshaikh2015@fau.edu  M. Kaan Tasbas  Taylor Tanksley  Brian Beltran | |
| *Date* | 19 February 2018 | |
| *History Table* | **Date** | **Activity** |
|  | 2/15/2018 | Edited executive summary, adding more information from notes taken after meeting Perry |
| 2/17/2018 | Completed competitive analysis and high-level functional requirements |
| 2/18/2018 | Completed data definition and edited non-functional requirements |

# Executive Summary

## Product Name: E-Lab Service Request App

E-Lab is a reinvented version of the CEECS Lab Services request form. It allows the user to navigate through parts, sorted by a variety of categories, and makes it easier for them to find what they’re looking for. The webstore also allows the user to reserve the parts they need and save them in a cart. If an item is currently unavailable, E-lab will allow the user to place a request for it and will notify them once it is available. If the user needs to rent an item, a check-out and check-in transaction will be completed. The condition of the item will be evaluated before and after it’s checked out. Once the user completes their request, they will be directed to a checkout page and given a verification number.

To access the webstore, the user must create an account, then must use his or her FAU username and password to log in. Upon login, the user will be directed to the OIT (office of information technology) verification page and redirected back to the webstore. Those who are not CEECS students will need to be granted permission to access the webstore.

One of the webstore’s key advantages is the ability to search and locate needed parts and read a description about the parts. It also allows the user to know if an item is available or not, and if it’s not available, the user may upload a picture of the part and request it to be ordered. The webstore also includes prices of items so that the user knows how much their items is costing Perry.

# Competitive Analysis

|  |  |
| --- | --- |
| E-Lab Features | Competitor Features |
| Equipment Loan/Repair | Equipment Loan/Repair |
| File Upload | File Upload |
| Availability Status | Priority Level |
| Invoice with Part ID Number | Confirmation Email |
| Part Search |  |
| Part Description |  |

E-Lab allows the user to checkout multiple items, rather than one at a time. It also provides the user with the availability status of an item. If an item is currently unavailable, the user is able to request it and will be notified when it is once again available. E-Lab also to upload files for specific services, such as 3D printing and PCB milling. It also provides them with a reference number for their requests, which they can refer to if there is any mix-up. E-Lab also provides the user with the ability to search for an item, and will provide a short description for each part.

# Data Definition

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| --- | --- |
| Name | Usage |
| partID | Part ID variable – allows for the storage of the unique ID code for the parts |
| partName | Name variable – allows for the storage of the name of the specific parts |
| partCategory | Category variable – allows for the storage of the category in which each part belongs to |
| partDescription | Description variable – holds the description of each part |
| serviceID | Service ID variable – allows for the storage of a unique ID number for each service |
| ticketID | Ticket ID variable – holds the number of the ticket that user fills out for part requests |
| transactionID | Transaction variable – holds a unique number for the transaction that the user completes |
| inventoryStatus | Inventory Status variable – stores the availability status of the parts |
| amountLeft | Amount variable – holds the number of available parts when it is less than 10 items |
| partPrice | Prince variable – used to show the prices of the items listed in the webstore |
| permissionType | Permissions variable – controls the type of access different users get (staff, students, etc.) |
| studentID | ID variable – stores the user’s Z-number |
| studentName | Name variable – stores the name of the users of the webstore |
| classID | Class variable – stores the code of the class that the user requires a part for |
| collegeID | College variable – holds the name of the college the user belongs to |

# Overview, Scenarios, and Use Cases

# High-Level Functional Requirements

* The user will be able to search for specific parts through the webstore
* The user will be able to upload images of parts and files for 3D printing
* Every item in the store will be allocated a unique ID number
* The system will allow users to create a new account, and send a verification email
* Upon checkout, the user will receive an invoice

# Non-Functional Requirements

* Performance: Quick page load (within 2 seconds)
* Usability: The webstore’s functionalities can be learned in under 10 minutes
* Accessibility: The website does not translate to other languages and does not have any accommodation for the visually impaired
* Expected Load: 100 students per day
* Security Requirements: CEECS, OIT
* Storage: LAMP server
* Availability: Qualified CEECS students, students from other colleges who have been granted access by Perry and his staff
* Supportability: system maintenance is cost-effective (within the product owner’s budget)

# High-Level System Architecture

* Back-End: Java, MySQL
* Front-End: HTML, CSS, JavaScript, Python
* Supported Browsers: Google Chrome, Internet Explorer/Microsoft Edge

# Team

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| --- | --- |
| Name | Title |
| C. Perry Weinthal | Product Owner |
| Ayah Elshaikh | Front-End Lead |
| M. Kaan Tasbas | Back-End Lead |
| Taylor Tanksley | Scrum Master |
| Brian Beltran | GitHub Master |

# Checklist

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| --- | --- |
| Task | Status |
| Team decided on basic means of communications | Done |
| Team found a time slot to meet outside of the class | Done |
| Front and back end team leads chosen | Done |
| GitHub master chosen | Done |
| Team ready and able to use the chosen back and front-end frameworks | On Track |
| Skills of each team member defined and known to all | On Track |