



THE STATE UNIVERSITY OF ZANZIBAR

SCHOOL OF NATURAL AND SOCIAL SCIENCE

DEPARTMENT OF COMPUTER SCIENCE AND

INFORMATION TECHNOLOGY

Course Code-Name: CS/INF 2215- Web Technologies

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First Review-I

**Project Title: SUZAMarketPlace
(Student to Student ecommerce system)**

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CHAPTER 1

INTRODUCTION

1.1 Background

There is a growing interest on entrepreneurship among students at the state university of Zanzibar. This has been due to the introduction of entrepreneurship courses and difficulty in getting white collar Jobs. Therefore students create their products and try to sell to their fellow student.

1.2 Purpose of this document title

The purpose of this document is to provide the stakeholders of the proposed system which is to be named SUZAMarketPlace and its other complementing subsystems such as students' shelf/order/and delivery offer alerts.

1.3 Problem Statement

- Students fail to reach a wider customer base and end up selling to just the people that they know and not a large network of campuses that SUZA has.

1.4 Proposed Solution and expected Outcome

As proposed web database application ,called SUZAMarketPlace, this is a C2C e-commerce application, where students list things that they are selling. Be it new or old, and the customers(students) can order and buy these products. is expected to try to close in the gap between student who want to sell new and/or used items and those who want to buy from students.

Structure of document and reading suggestion

It has used the flow of the mainframe works of report writing and requirement specification document provided during.

The report contains four chapters which explain different related things about the proposed system these chapters including;

Chapter one that hold an Introduction part together with background, Problem statement which explain the main problem that is being addressed, Project main aims and Project specific objectives, expected results are expected after accomplishment of the project, Literature review which talks about the theoretical review and operational review and Report layout.

Chapter two is the second chapter in this report which contains the Study area that involve the place where the project requirement was collected, Feasibility study, Requirement elicitation which describe the possible ways used to collect data for the project, Requirement specification and Analysis.

Chapter three is the third chapter in this report which contains Design and Implementation artifacts and constraints of the project, Methodology that will be used for the implementation of the project, Architecture of the project, Database design and Processes design.

1.5 Main objective

The main objective of the system is to create a ready application which can help the students use along their entrepreneurship studies, momentum and

- Encourage students to create their own products that people will know that they can get from SUZAMarketplace for example snacks and beverages.
- Support the effort of inducing students with entrepreneurial mindset as the ongoing curriculum.

Scope of the Project

For now the scope of the project is aimed at exploring the current move and paradigm shift into Javascript development.

Also in later stages, to experiment on API calling services, for instance a student can use only their registration number to have all their personal details.

In addition to that, the project is aimed at experimenting deploying javascript based application on the web.

Data Collection and Literature review

We have used several resources to familiarize ourselves with the concept behind Ecommerce. We also tried to interview some students if it would be helpful and hopefully productive if they had the access to buy and reach out to any or every student if they want to sell something. The below is an extract from a web source (<https://www.forbes.com/sites/bernhardschroeder/2019/04/29/entrepreneurs-forget-b2c-and-b2b-build-a-c2c-e-commerce-platform-and-disrupt-or-grow-an-industry/#42c25536518e>)

With the continued rise of product or service ecommerce, companies are leveraging things or places that people have and have created marketplaces for consumers to do business with each other. Platforms like AirBnb, Etsy, eBay, and others have exploded this industry. You could claim Amazon is becoming a C2C platform as it is increasingly creating and selling its own products. Why the rise of C2C?

C2C businesses are a new type of business model, sometimes disruptive, that have emerged with ecommerce technology and the sharing economy. The advantage for customers is that they benefit from the competition for products and often find items that are difficult to locate elsewhere. In addition, margins can be higher than traditional pricing methods for sellers because there are minimal costs due to the absence of retailers or wholesalers. C2C websites or even applications are convenient because there is no need to visit a brick-and-mortar store. Sellers simply list their products or services online or via an application, and the buyers come to them.

This business model still allows the companies that build and launch these C2C platforms to make money from the fees charged to sellers for listing items for sale, adding on promotional features and facilitating payment transactions. The C2C market is projected to grow in the future because of its cost-effectiveness. The cost of using third parties is declining, and the amount of products for sale by consumers is steadily rising. Consumers consider it to be an important business model because of the popularity of social media and other online channels. These channels showcase specific products already owned by consumers and increases demand, which drives increased online traffic to C2C platforms.

The C2C marketplace is continuing to grow, as more startups have entered the space to facilitate C2C transactions. Many companies target niche markets and list specific products to attract unique consumers. For example, Tokopedia, one of Indonesia's largest online marketplaces, is a C2C retailer that provides a platform on which entrepreneurs can open small and midsize C2C enterprises for free. As of May 2018, this leading retailer had approximately 143.1 million visitors. Another would be the rise of apps like Letgo and Offerup that allow consumers to sell to their neighbors. Letgo boasts 100 million downloads and 400 million listings since 2015.

CHAPTER 2

Requirement and Feasibility Analysis

Technical feasibility

With discussions and available resources, we saw that the project was feasible in technical aspect, however it will require a long learning curve.

Schedule feasibility

The project schedule is accepted by the client and the team is working as planned in order to conform with the delivery date which will be two months after the payment from the client

Operational feasibility

Due to low if not unsuccessful usage of some existing platforms, such as the online learning system. Usage of this proposed solution is not guaranteed. However, there is some promising interest in some of the students that

Requirement elicitation

Functional Requirement

1. Student Customer should see the home page of the application should display available products whose quantity is not less than one.
2. Student Customer should be able to add products to a shopping cart.
3. Student Customer should be able to view products in the shopping cart.
4. Student Customer should be able to update product quantity in the cart.

5. Student Customer should be able to remove any product from the cart.
6. Student Customer should be able to empty all the products in the cart.
7. Customers should be able to view order confirmation after a successful order completion.
8. The admin should be authenticated in order to have access to the admin page of the application to perform any administrative task.
9. The student seller should be able to manage (add, update and delete) products and their categories.
10. The student seller should be able to view the lists of products and categories.
11. The student seller should be able to view the email subscribers' list.
12. The student seller should be able to view payment and order details.
13. The student seller should be able to update order status.
14. The application should save all customer, product, order, payment and admin data on MySQL/MongoDB database

Non-Functional Requirement

- **Availability:** WebApp will not be Publicly available for initial phases but we expect to Host it the internet after the first stable release.
- **Extendibility:** After the implementation and meeting first version requirement, we expect to extend, the project to a dedicated Online Server for a few months to analyze the practical feasibility of the concept.
- **Maintainability:** We expect to maintain and add features based on the feedback we will get from the supervisor and early users.

CHAPTER 3

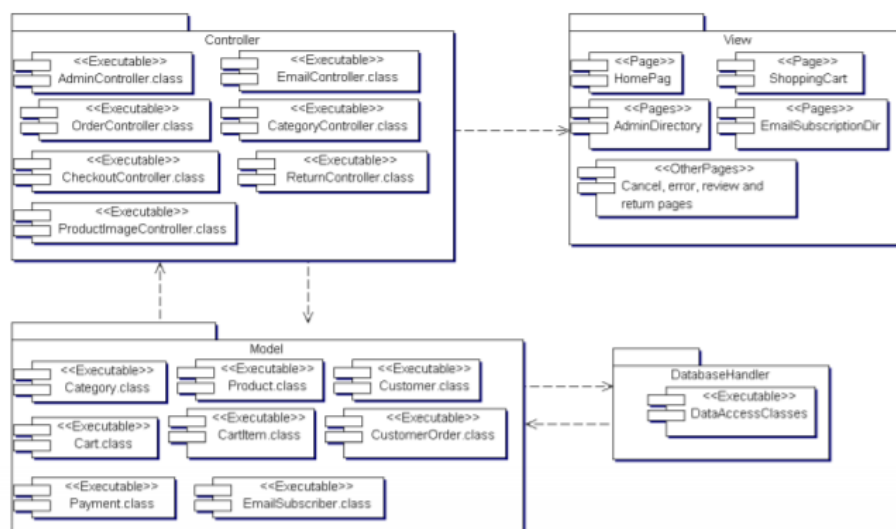
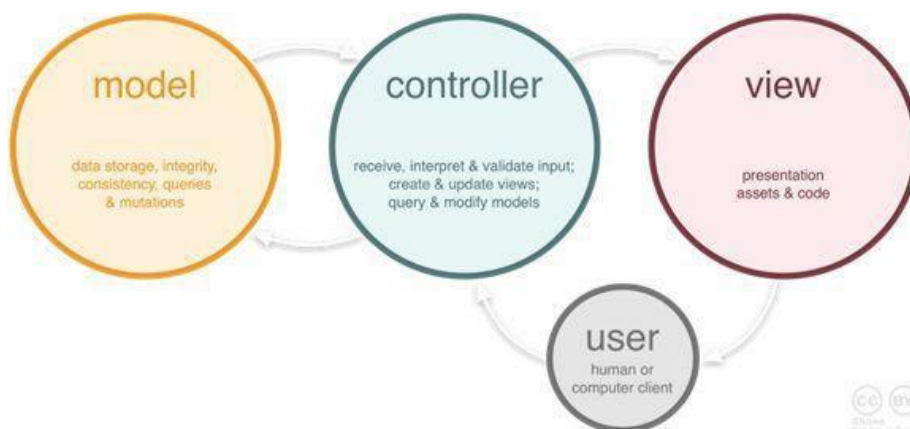
System architecture and Module description

Methodology

The methodology used is Object-Oriented Programming, this a software development technique that uses classes and objects. It's very effective technique because it helps in code re-use, and maintainability.

Architecture

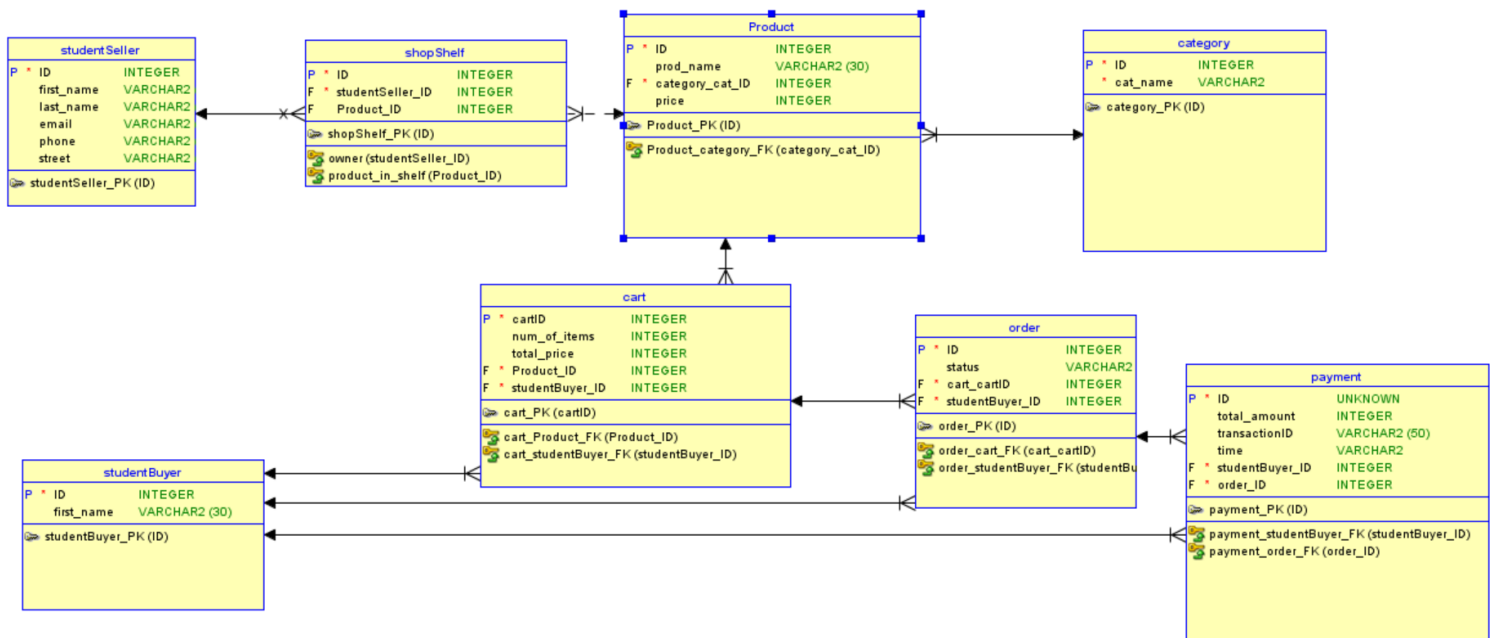
The architecture used in implementing the project was that of MVC, Meaning Models-Views-Controllers



Database Design

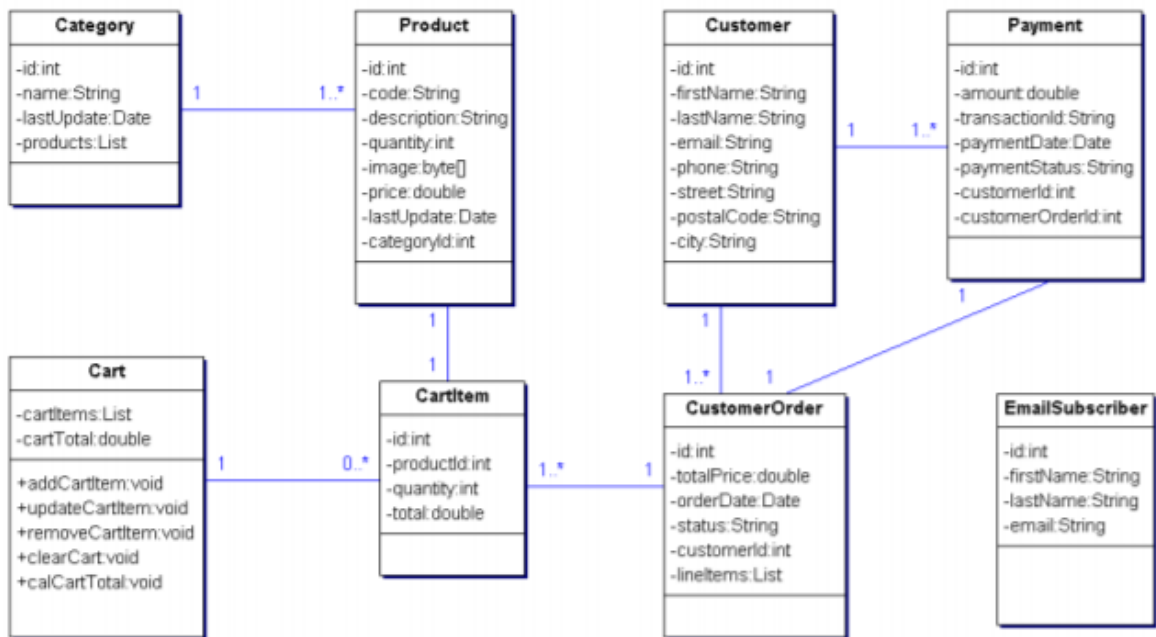
In this project we are going to use the **MySQL/MongoDB** Database for app testing and later migrate it to Firebase.

Also we are going to use the Oracle Data modeler to design the ER model and the Relational model.



4.1.2 CLASS DIAGRAM:

The following class diagram shows the illustration of the relationships and source code dependencies among classes in the Unified Modeling Language (UML).



Software requirement

We expect to use the MEAN stack which is mainly comprised with the javascript technology.

MongoDB,

Express.js

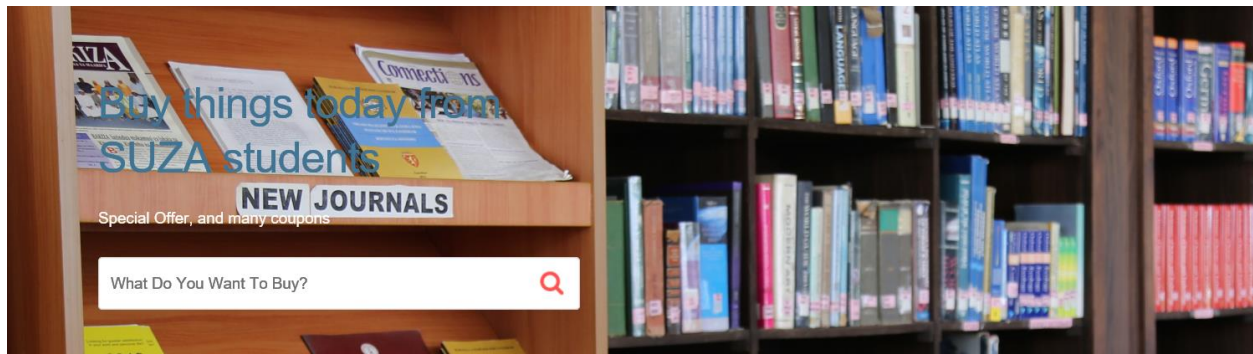
Angular.js/jQuery

Node.js

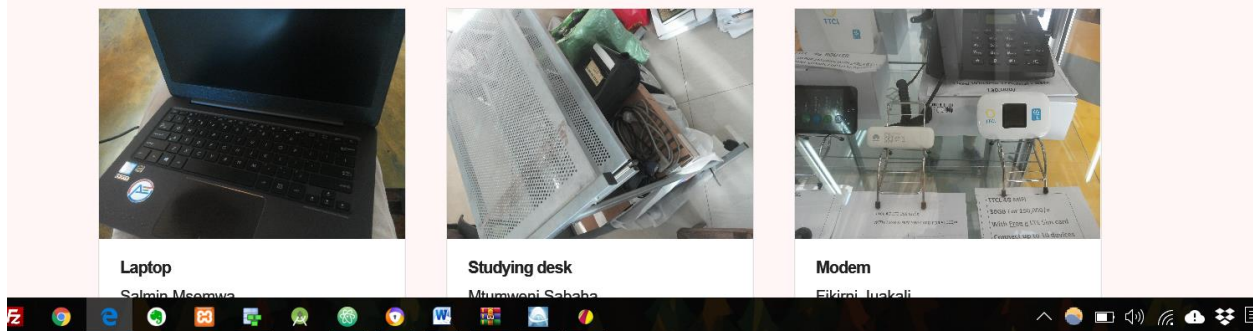
Hardware requirement

Processor: Intel Core i5 and above Ram: 4 GB and above. Hard disk: 500GB and above.

Implementation



Products in Stock



Note:Sourcecode in repository

[Github.com/abduleimakuya/cs-web-project](https://github.com/abduleimakuya/cs-web-project)

References

<https://www.clarity-ventures.com/articles/what-is-consumer-to-consumer-ecommerce>

<https://vexxhost.com/resources/tutorials/getting-started-with-mean-stack/>

<https://www.ibm.com/cloud/learn/mean-stack-explained>

<http://meanjs.org/>

<https://angular-templates.io/tutorials/about/learn-how-to-build-a-mean-stack-application>