**1. INTRODUCTION**

**1.1 Problem Statement**

Every year thousands of student enroll in Kathmandu University and thousands of student graduate from KU. For the student to settle in or move out from KU is very hectic time ,there are a lot of things that are unnecessary for the students who are moving out but the same thing can be useful for new comers. Due to lack of platform to sell/buy such goods the third party is making a huge sum of money by buying the goods at low cost and selling it to new students at high price. It is loss for the students at both end.

**1.2 Purpose**

The purpose of the KUMART is to provide an online platform where students can buy and sell their goods at reasonable price as well as to sell new goods and accessories like custom t-shirts, electronic gadget’s etc. This platform will make the settling process for students a lot easier and seniors can also sell their books/notes to juniors at reasonable cost. This decreases the involvement of the third party that are making large sum of money through students.

**1.3 Scope of the project**

This platform has a huge scope within the KU and can be extended to other universities for the benefit of the students. Implementation of this system wil be beneficial for students. Also the residential people around Kathmandu University can put up advertisement of rooms and any other things. This website can be further extended into larger area serving more numbers of users to get benefited by Ku-Mart.

# 1.4 Objectives

The idea of making a website for ecommerce purpose as the student coming to KU for studying does not have any idea about the market around here and they have to buy all sorts of goods like bed, furniture and all other things needed for daily use for a very expensive Sum of money. And after graduating at the time of leaving they have to sell those same things for almost the minimum price as they could get and this cycle continues for again new students, so to overcome this problem if they upload their products to our website new student who need to buy those products can buy it in a reasonable price in our website. So our website can be beneficial to both the seller and buyer as they can contact each other directly and there are no brokers in between to cut the commission from either party.

**1.5 Case Study**

KUMART was developed to provide a simple and easy platform to buy and sell used goods as well as new goods which would be beneficial for students as well as local people. KUMART was inspired from some of these online shopping web platform given below:

* **Hamrobajar:**

**Hamrobazar.com** is FREE online classified which enables individuals as well as companies to list wide variety of new or used product online. We at hamrobazar.com believe that Internet is a great promotional vehicle as well as communication channel for connecting buyers and sellers. Hamrobazar.com is perfect solution which helps to list your products for free.

* **eBay Inc**.

**eBay Inc** is a [multinational](https://en.wikipedia.org/wiki/Multinational_corporation) [e-commerce](https://en.wikipedia.org/wiki/E-commerce) corporation hat facilitates [consumer-to-consumer](https://en.wikipedia.org/wiki/Consumer_to_consumer) and [business-to-consumer](https://en.wikipedia.org/wiki/Business_to_consumer) sales through its website. eBay was founded by [Pierre Omidyar](https://en.wikipedia.org/wiki/Pierre_Omidyar) in 1995, and became a notable success story of the [dot-com bubble](https://en.wikipedia.org/wiki/Dot-com_bubble). Today, eBay is a multi-billion-dollar business with operations in about 30 countries. The company manages eBay.com, an [online auction](https://en.wikipedia.org/wiki/Online_auction) and shopping website in which people and businesses buy and sell a wide variety of [goods and services](https://en.wikipedia.org/wiki/Goods_and_services) worldwide. The website is free to use for buyers, but sellers are charged fees for listing items after a limited number of free listings, and again when those items are sold

**1.6 Targeted Users**

**1.61 Students**

The students of Kathmandu University may use this application to access information regarding various sales and post their goods for the sell. They can also order and purchase various goods online.

**1.6.2 Local People**

Local people can also use the platform to post the advertisement about their rooms available for rent, advertise their business online so many students can know about them.

**1.7 Overview of Document**

The next section contains the acronym, abbreviations and definitions used in the document. This section can be read thoroughly by any of the reader who is involved in the system directly or indirectly. The third section describes the system models of this application. The fourth chapter describes functional requirements of the project. The fifth section defines the non-functional requirements of the application. The sixth section describes the features that can be extended in the future version of the system. The seventh section describes about the requirement specification of the system.

**2. GLOSSARY**

**Acronyms and Abbreviations**

* KUMART: Kathmandu University Market
* HTML/CSS/JS: Hyper Text Markup Language/ Cascading Style Sheet/ Java Script
* SQL: Structured Query Language
* IDE: Integrated Development Environment
* SDK: Software Development Kit
* API: Application Program Interface
* ER Diagram: Entity Relationship Diagram
* DFD: Data Flow Diagram

**3. SYSTEM MODELS**

**3.1 System Overview**

KUMART is an ecommerce website that provides simple and easy platform for the students and locals around KU to buy and sell goods and products. KUMART has a login section, categories section, search section, toolbar section and display section of the items on the homepage.

4. Functional Requirement

Functional Requirements is a description of the facility or feature required. Functional requirements deal with what the system should do or provide for users. They include description of the required functions, outlines of associated reports or online queries, and details of data to be held in the system. The major system requirement of this system are:

4.1. Login Section

This is the initial stage or home screen, where the user is directed to at the first visit. From there the users can choose what to do next. Whether they simply want to view the products that are on the market or Sign Up and Login into the system so as to comment or insert products into the market. They also can create new user from the sign up system which is in the same page. Similarly the login process determines whether the user is admin or a normal user.

4.2. Search Section

Search section allows users to search for the products they wish to buy. They are provided with text input field. The fields that are provided for searching products include product names, keywords, categories and brands. This helps the user to get their desired item in short period of time.

4.3 Toolbar Section

On this section users can insert and modify details about the products. The details include title, price, description, product photo. There is a go back button on this page that redirects us to the homepage and also Order button so as the buyer can order the product. There is a comment section so that the users can ask anything that they are unsure of. Similarly the seller can insert product so as to sell on the market. All the required information must be inserted in order to insert the product. Also the user can login into the system so as to comment or insert products into the market. They also can create new user from the sign up system which is in the same page.

4.4 View Sales Section

On this section the user can view all the products they have ordered including the total price and the quantity. Also this section is like a profile of the user. They can view what they have sold on the market and what they have bought.

5. NON-FUNCTIONAL REQUIREMENT

5.1 Performance

* Response Time

The user might request to buy certain item at given date. The time for this purpose totally depends on the network company’s response. Besides this, the system shall provide good response and the information user needs.

* User Interface

User Interface scenario shall respond within minimum time as possible.

5.2 Usability

KUMART should provide very easy and comfortable user interface so that the users can access to the system quickly and don’t get any difficulties whiles using the system. If any error occurs then the proper message for reason for occurring that errors should be provided.

5.2 Reliability

KUMART should reduce the impact of power failure, hardware failure by building redundancies in order to prevent the database. It should ensure the users to completely reply on the system.

5.3 Efficiency

The system should provide the accurate details about the available items to the users in such a way that the users can archive the information easily, which makes it more efficient system for the users prospective.

5.4 Security

The accounts of the users should be secured so that no any misbehave regarding the information and transactions of the items occurs. The account status of the users should be checked frequently.

5.5 Maintainability

There should be no need of maintenance of this system after its deployment. Any problems or bugs, if reported, will be fixed by the developers of this system. The servers of this system will also be supervised by the developing parties.

5.6 Integrity

There should be consistency of the database, actions, etc in our system. For the purpose of integrity, all the rights and responsible of the database should be given to the admins and developers. The system should be secure and encryption should be done to protect the database from outside hackers.

6. SYSTEM EVOLUTION

Taking in concern to how the system works currently in its development phase, this system can be upgraded to next level. As this system is a core website, it is never fully completed. There are a lot of things to add up and modify in the website. For the project purpose, most of the listed objectives are met. But some of more features can be still upgraded, which are mentioned below:

* The operation of online payments can be mentioned in the system in order to make the transaction process easier.
* The Graphics, Security, etc. are to be added up strongly in order to make the system more enhanced and efficient.
* Major future task is extending the facility by launching an application for smart phones.
* Inform the user about the availability of their interested category items.

7. REQUIREMENT SPECIFICATION

It is a structured document which sets out the system services in detail. This document is also known as functional specification. Thus, it should mention the functions of the system. The requirement specification is the agreement between the buyer and the developer. Requirement specification for a software system is a complete description of the behavior of a system to be developed and may include a set of use case that describe interactions the users will have with the software. In addition it also contains non-functional requirements that impose constraints on the design or implementation, since this is functional specification, so it should be targeted to the technical staffs and project managers of the company. As, we are defining the requirement specification for KUMART, following are the descriptions for this:-

7.1 Hardware Requirement Specifications

* Browser on computer and android
* 1024x768 resolution or higher
* Processor : Dual Core 1.6GHz
* RAM: 1 gigabyte (GB) (32-bit) or 2 GB(64 bit)

7.2 Detail Requirement Specification

The functional requirements of KUMART are categorized into three modules

7.2.1 Login Section

* Description

The primary function of the login section is to identify the user identity and give access according to the user type.

* Actor and their Role

1. User : Access to read
2. Admin : Access to modify

* Main Flow

1. The normal user login into the system and view the items on the market and make any transactions if needed.
2. The admin login into the system and organizes the all the users and details of the available items.
3. The admin validates the users and allow them to the market.

7.2.2 Search Section

* Description

The primary function of the search section is to provide detail about the searched item by the user.

* Actor and their Role

1. All user : Access to read

* Main Flow

1. The user enters the keyword of the item which they want to get detail about in the form of text input.
2. The fields that are provided for searching products include product names, keywords, categories and brands.
3. Admin can search the details related to other users in order to modify the user or their detail.

7.2.3 Toolbar Section

* Description: The primary function of this section is to insert product detail by the seller and acquire the product detail of their interest.
* Actor and their Role

1. Seller : Access to modify
2. Buyer : Access to read

* Main Flow

1. The Seller inserts the product details which they want to sell.
2. The product detail provided by the seller is approved by the admin.
3. The Buyer views the details of the product and leaves comment if interested to buy.

7.2.4 View Sales Section

* Description

The primary function of this section is to provide information regarding any part of system.

* Actor and their Role

1. All users : Access to read.

* Main Flow

1. The user can view all the products they have ordered including the total price and the quantity.
2. They can view what they have sold on the market and what they have bought.