DAEYANG UNIVERSITY

COLLEGE OF INFORMATION COMMUNICATION AND TECHNOLOGY

COURSE CODE: 413

SYSTEM REQUIREMENT AND SPECIFICATION

PRESENTED BY: BScICT/18/056

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A PROJECT SYSTEM REQUIREMENTS AND SPECIFICATION SUBMITTED TO THE FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY IN PARTIALFULFILMENT OF REQUIREMENT FOR THE DEGREE OF BACHELOR OF SCIENCE IN INFORMATION AND COMMUNICATION TECHNOLOGY

INTRODUCTION

E-procurement is a business process in which business transactions are done through electronic means, with 'e' in e-procurement standing for electronic. Business procurement requires proposal and payment processing, which usually involves several areas of the company. Procurement expenses can fall into several different categories depending on the procurement demand. Competitive bidding is usually a part of most large scale procurement process involving multiple bidders. Paper based procurement is mostly prone to human errors, it is vulnerable to insider fraud and it can also cause anger to customers and vendors. E-Procurement is a software that will be used to solve all these problems.

PURPOSE

The purpose of this software is to automate and allow streamline business processes, achieve transparency of and all spend data. To create and manage a global supply chain with optimal performance and strong vendor relationships built through strategic sourcing. It will also redefine the role of procurement as a source of value and cost savings created through actionable insights and process optimization.

SCOPE

The aim of the research is to develop a web based application for procurement system that will be implemented at Daeyang University. This system will help to keep track of all record details of all procurement process, this include product and services, information of the suppliers, purchase orders, order requests, reports and all the information will be stored in a database of the system. This research covers the planning, analyzing and designing phases of the system.

BENEFITS

- Reduced cost: this is done through preventing duplicate spending, leveraging volume buying and saving you costs associated with paper-based systems.
- Transparent spending: electronic procurement makes it easier to write and analyze reports on your systems.
- Increased productivity: it is less time consuming than traditional procurement. Having your records stored electronically makes it easier to submit reusable tenders.
- Eliminating paperwork
- Increased transaction speed

- Standardized buying
- Reduced errors

GOALS

The goals of this system are:

- Easy access to supplier catalogues and websites.
- Efficient processing of orders.
- Accurate prices.
- To achieve transparency in the procurement process.

OBJECTIVES

- To automatically send procurement proposals.
- Approve proposals
- To send tenders to the suppliers
- To view bids from different suppliers
- To easily track paid and unpaid purchases
- To track all the invoices a supplier provided

SOFTWARE REQUIREMENTS

- Database management system MSQL.
- An operating system that either windows 7, windows 8, windows 8.1, window 10, windows 11.

HARDWARE REQUIREMENTS

A phone or a laptop with the following specifications:

- Pentium 3 or any bigger computer with processor speed of at least 1.9GHz
- 1GB memory space
- Color monitor low power consumption and ups

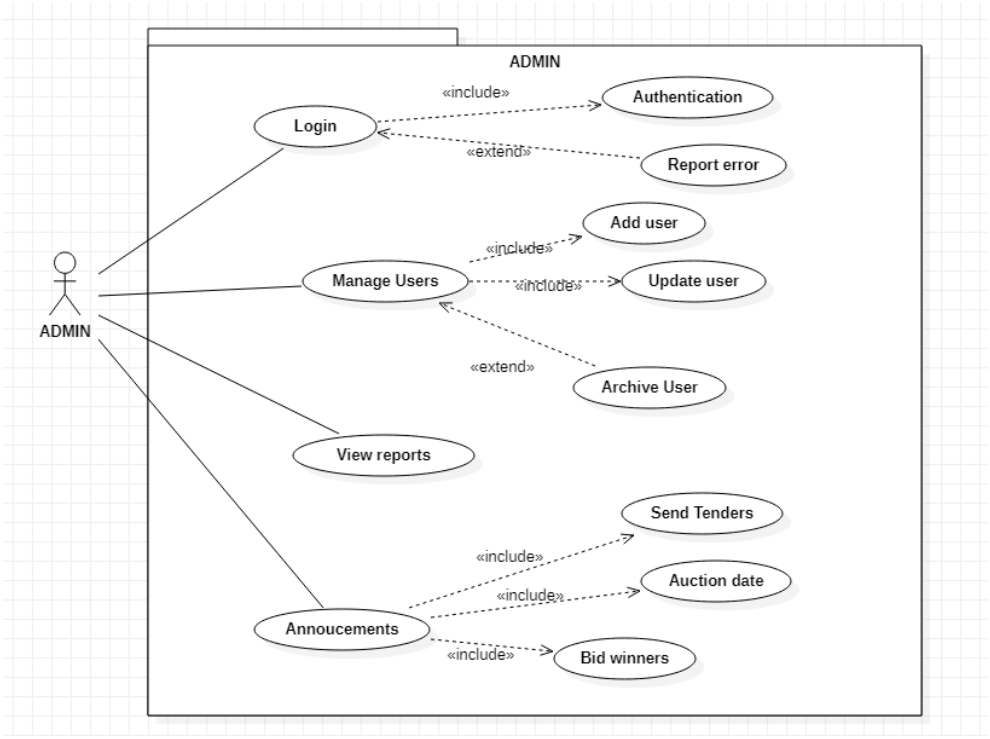
USERS

- Administrator
  The role of the administrator is to manage users, manage reports, set date for auction, announce winners of the auction, send tenders.

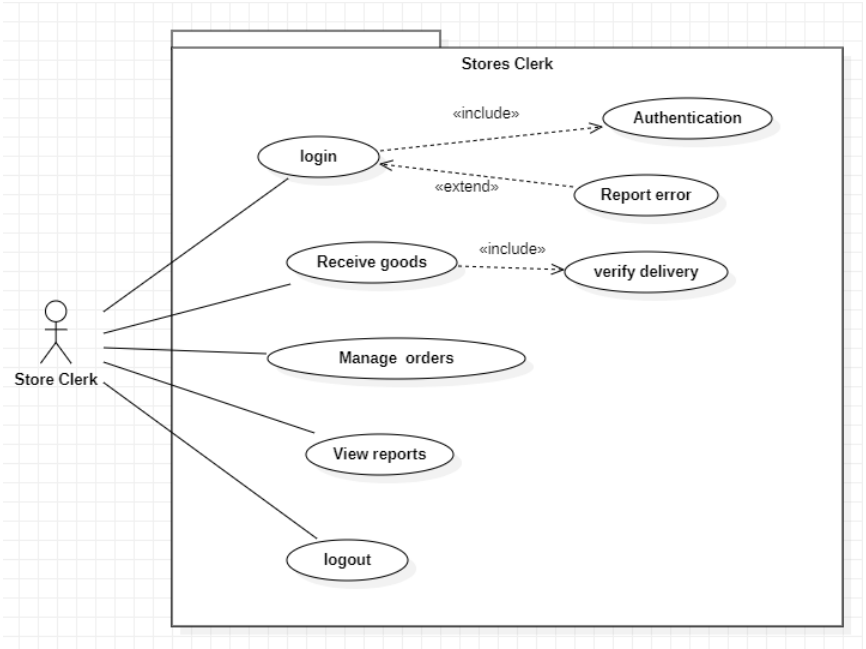
- Stores officer:
  The stores officer keeps track of all materials purchased in the company.
- Head of departments
  Deayang University has three departments. The first department is the administration, which is headed by the University Registrar, the second department is faculty of ICT which is headed by Dean of ICT, the last department is the faculty of Nursing, which is headed by Dean of Nursing. The HOD's role is to for resources when there is an order, to approve an order and also to view reports for the resources in the company.
- Accountant
  The accountant is the one who will be dealing with the financial resources of the company. The HOD checks with the accountant if there is enough fund to purchase materials that has been ordered. He/she will be making payments, receiving quotations, receiving invoices and printing invoices.
- Supplier
  The supplier is a vendor who will provide the company with the needed resources. He/she be able to secure a bond, register, participate in bidding, fulfill an order, sending quotations, sending invoices.
- Officer
  This is the person who is responsible for taking an order to the HOD. He/she is responsible for choosing items, make a purchase order, receive goods.
- Registrar
- Korean Officer

USE CASES

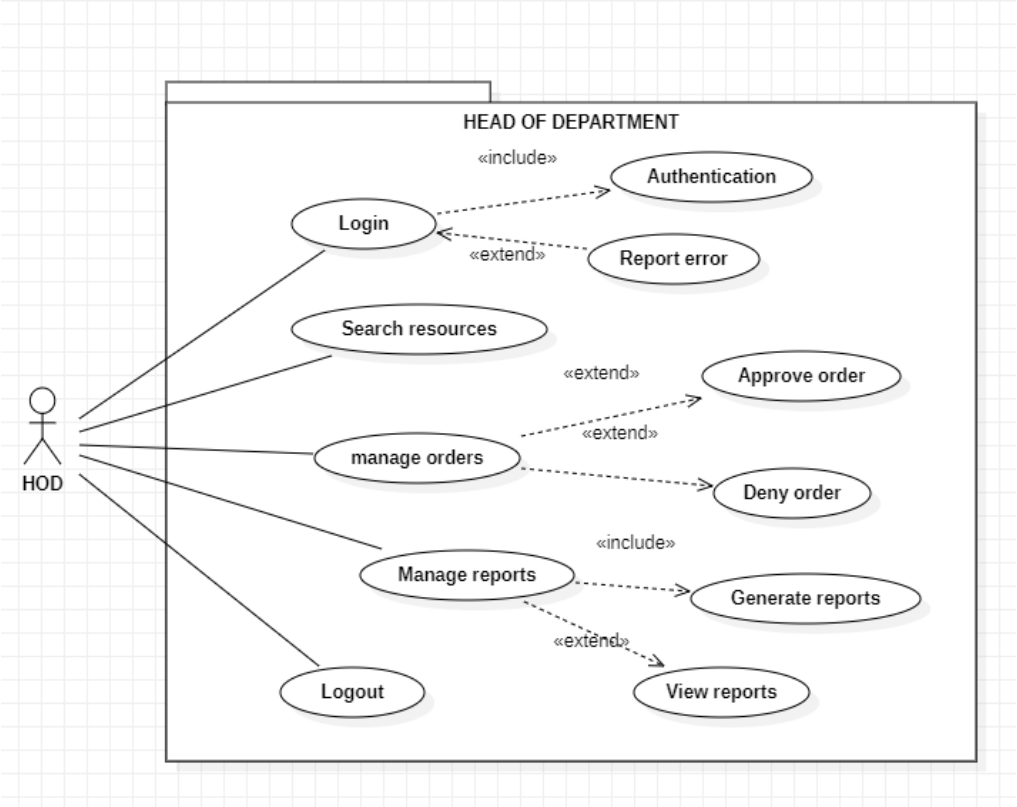
1. ADMINISTRATOR



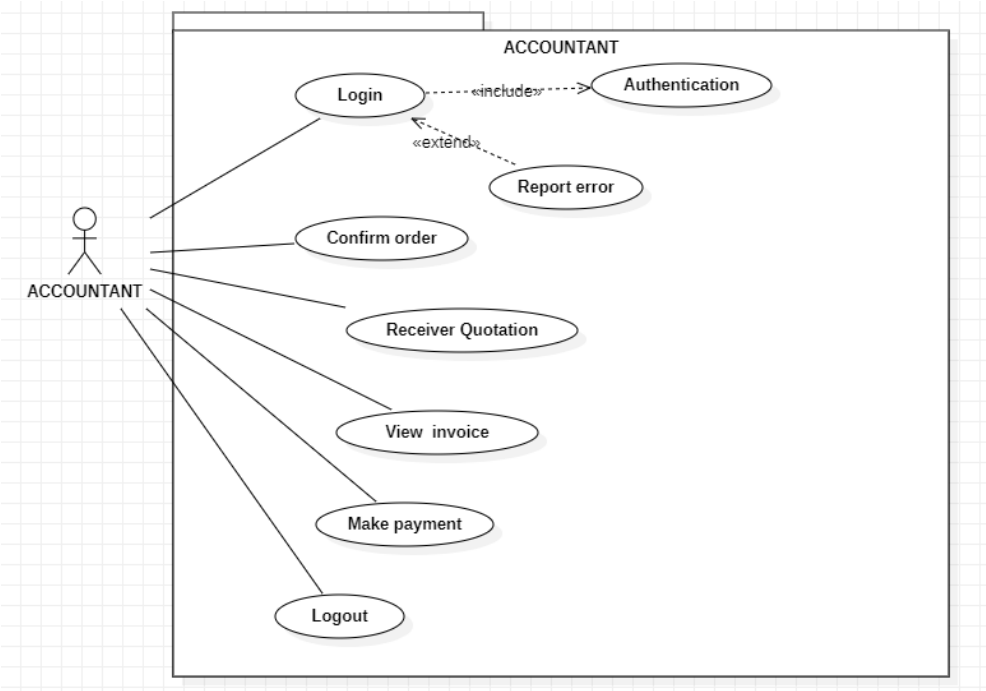
2. Store Officer



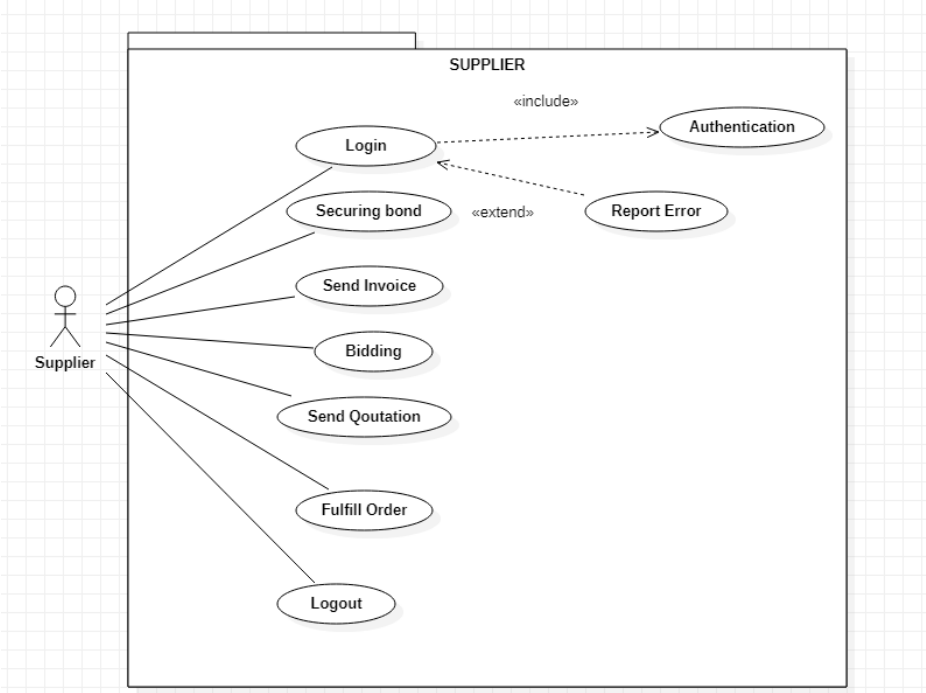
3. Head of Department



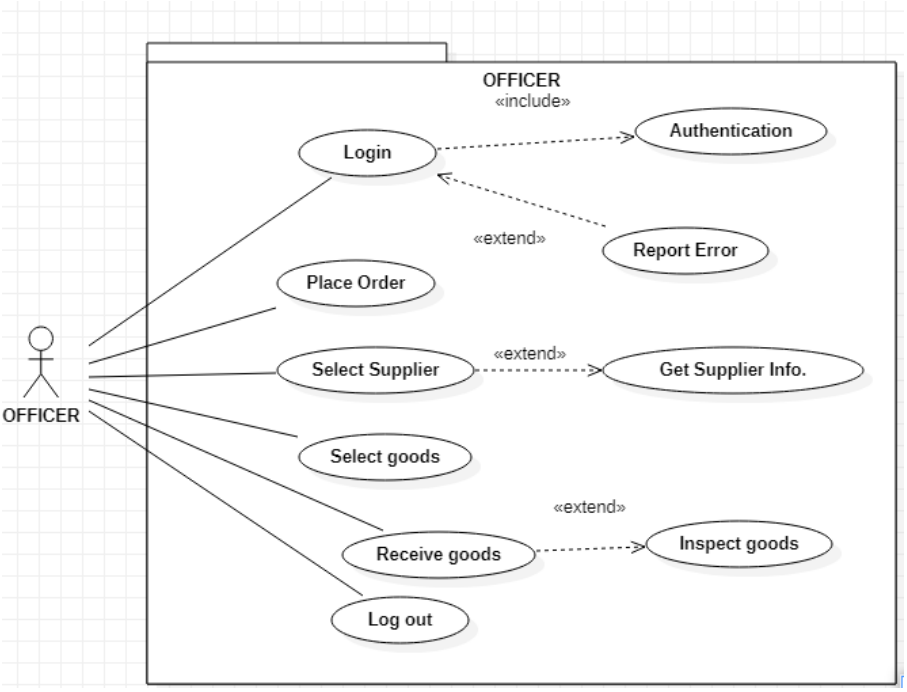
4. Accountant



5. Supplier



6. Procurement Officer



SYSTEM FEATURES

- Time-saving automation
  With e-procurement, all the required processes will be at once.
- Managing business documents
  E-procurement software should have the ability to simplify the process matching business documents, such as purchase orders, invoices and payments. Any request raised through an e-procurement system must track and reconcile the documents received against that request.
- Manage budget
  E-procurement software should have the ability to simplify the process of matching business documents, such as purchase orders, invoices, and payments. Any request raised through an e-procurement system must track and reconcile the documents received against that request.
- Multi-level approval
  E-procurement system will be highly flexible and configurable by allowing users to customize multiple levels of approval-flow based on the organizational hierarchy.
- Vendor management
  E-procurement software should also be flexible enough to categorize vendors according to cost centers, each of which can have multiple vendors with different tax and discount rates. Vendors can be grouped and managed according to the prices of the products.
- Catalog management
  E-procurement software must allow users to organize the products in a specific way to ensure consistent and high-quality data across all sales channels. A catalog can contain details like product names, description, hierarchy, price, vendor and other related details.

FUNCTIONAL REQUIREMENT

REQUIREMENT	DESCRIPTION
Register users	The IPC chairman will approve registration by giving password to the users which can be updated by respective users for security
Authenticating users	Users will access the services provided by the system if and only they have entered the right credentials and if their

	credentials allow them access the services they have requested.
The system is allowing stores clerk to send required list of materials to procurement officer	The system will have an interface where the stores clerk will be able to fill in the required materials with the quantity of the materials.
The system will allow the admin to add suppliers details and store the details in the database.	Every detail of the supplier will be stored, this will include, contact details, location, and agreement of terms.
The system will allow the procurement officer to send order to suppliers	The officer will be able to send to all suppliers in the system without the supplier knowing that there other multiple suppliers.
The system will allow the user to acknowledge receiving of goods	The officer will acknowledge whenever he/she has received the goods procured
The system will be able to notify the supplier of their bid details	The system will be able to send a message to the supplier if he/she has been selected to supply the goods and also if they have not been selected.
The system will be able to remove a supplier	The system will allow the admin to delete the supplier account if needed.
The system will be to generate reports	The system will be to give out reports (orders, quotation details, invoice details, user history) in a form of a pdf.
User dashboard	This will give the statistical updates of the whole system.

NON FUNCTIONAL REQUIREMENTS

REQUIREMENT	DESCRIPTION
Performance	Information will be refreshed depending on whether some updates have occurred or not in the application. The system shall respond to the member in not less than seconds from the time of request.

Accuracy	The system shall accurately provide real time information as provided by the administrator taking into consideration various concurrency issues
Reliability	The system will not be able to connect to the centralized database in the event that the organization LAN fails or in the event of server being offline due to failure.
Security	The system will only be accessed by registered members only. Only the administrator will have the privilege to create new accounts and passwords.
Robustness	If a network connection is lost during a transaction, the system will allow the user to perform the transaction at a later time.
Portability	The system will be a web based application, therefore it can run on nearly all operating systems.
Correctness	The system will provide a platform where users will be able to edit information in case wring data has been submitted.
Privacy	The system will provide a platform whereby each and every member will only have access to information which will be attached to their login credentials.
Modifiability and extensibility	The system will be developed in a such a way that it will provide room for updates depending on the functionality of the organization.

CONCLUSION

When the system is completed, it will be implemented at Daeyang University to improve transparency and to fasten the whole procurement process at the university.

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