**KATHFORD INTERNATIONAL COLLEGE OF ENGINEERING AND MANAGEMENT**

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A

Major Project Proposal

on

**“Online Warehouse with Security”**

[Subject Code: CT755]

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## ABSTRACT

“Online Warehouse with Security” is the web application that connects employees of different branch of a shopping store to manage good items, analyze mostly sold and recently added items and hence generate invoice and statement on daily/weekly/monthly basis of net profit or loss for the store. It is an innovative approach towards securing and managing the stock items in the store. It also provide the feature of digital attendance system using face recognition for attendance purpose within the employees inside the store. Our project also features human detection in order to target in parts where unauthorized personnel try to reach out to our store without any permission by the admin. The web application also visualizes the data in depository by maintaining the “Bar Graph” and “Pie Chart” for the transactions and records.

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# CHAPTER ONE: INTRODUCTION

## BACKGROUND

The “Online Warehouse with Security” is the innovative approach of helping the peoples in the business sectors to manage the stock items. The web application specially targets the employees working in the warehouse or shopping complex. It helps the users to add the items based on category with respective buying price, selling price and quantity. It allows the required items to be updated on the basis of available number of good and items. With this the particular person can generate the report of corresponding items sold in the given day with corresponding profit. Also using face recognition tool to provide automatic attendance for the employees. The real time webcam security using tensor flow helps to prevent the shop from thief and robbery.

## PROBLEM STATEMENTS

* Difficulty in proper management and categorization of stock items and their records systematically.
* Tedious and more time consuming situation in doing attendance in the organization.
* Confidential data might be accessed by unauthorized person and data leakage may occur even though webcam and cc-tv footage systems are being installed in the shop for security purposes.

## OBJECTIVE

The objectives of the project are divided into main and specific objective and shown below as:

**Main Objective**

The main objective of this project is to make more secured online depository: virtual storehouse web application.

**Specific Objective**

The specific objectives of this project are:

* To provide security to the store information from unauthorized user using “Tensor flow object” detection.
* To perform digital attendance system of employee using face recognition with the help of open CV.
* To provide user to perform inventory activities.
* To visualize the record of store items in form of bar graph and pie charts.

# CHAPTER TWO: LITERATURE REVIEW

Various Works are performed in the management of stock items in the warehouse. Nowadays, shopping malls and complexes like Bhatbhateni and E-commerce websites like Daraz, ESewa, Khalti etc. are implementing such for keeping and securing their business. It is also one of the most essential components for their business. “SalesBinder” is one of the web applications providing such service. It is an online inventory management system which also combines your customers, sales leads, purchase orders, estimates, and invoices into one globally accessible place [1]. So for helping to keep and manage the record of stock items as well as provide security, this is our small approach to deal with the problems.

There are different types of web applications in Nepal which can be used to provide this types of services like in Online Shopping Stores, Bhatbhateni etc. “The Canvas” and “Zoho” are also other web applications providing such services in Bank, Saloon, Coffee, Pharmacy, Market etc. In Nepal such types of web application is becoming more popular to sustain their business and make better profit and management.

Bhatbhateni Store is one of the leading supermarket stores in Nepal. The system for the organization is built by “IMS Himalayan Sangrila Pvt. Ltd”. The record generally is categorized according to the supplier and then by the product information. Each item in the store has to be labeled and recorded for it to be distributed to branches and to stores. The Inventory Control System uses the data received from all the branches and determines the demanding products. It also monitors the amount of stock and provides information accordingly. The billing system is another sensitive part of the Departmental IS. It has a centralized server in each branch and several Points of sales (POS) throughout the entire building. The customers pay through the POS, and the information is directly stored to the server. The reports generated from these transactions are however transferred to the head office for further analysis. All these separate IS run under a common platform as bundled. Single software handles entire database, there is biometric fingerprint system for attendance of the staff members. Each branch has its own server and software, there is no any synchronization between branches or head office. There are cc-cameras for security of the superstore [2]. However, such types of systems are limited to bind in certain level in providing certain features and webcam security as mentioned in our project. So, this project emphasis on the security of the records in online depository and digital attendance using facial recognition.

# CHAPTER THREE: FEASIBILITY STUDY

This project is highly feasible to the real world and can be realistically accomplished. The different types of feasibility studies that were analyzed before moving to the project are discussed below:

## FINANCIAL FEASIBILITY

This system is software-based system so it is financially feasible. It is cheaper in comparision to other hardware related systems.

## TECHNICAL FEASIBILITY

The technical resources are not difficult to acquire so this application is also technically feasible.

## SCHEDULE FEASIBILITY

The minimum time for the completion of this project is about six to seven month whereas the maintenance and upgrades can take a month. Thus this system can be developed in the specified time.

## OPERATIONAL FEASIBILITY

This system is distributed and since it will be only used in business organizations dealing with sales and stocks, it will be easier and feasible to operate the system.

## RESOURCE FEASIBILITY

Since all the resources in this project are easily available, this project is feasible in terms of resources**.**

# CHAPTER FOUR: PROJECT METHODOLOGY

## BLOCK DIAGRAM OF PROPOSED SYSYTEM



Figure 1 Block Diagram

## DEVELOPMENT MODEL

For this project, we have used the Incremental Model of Software Process Model. This model combines linear sequential model with the iterative prototype model. When an incremental model is used, the first increment is a “core product”. The plan addresses the modification of the core product to meet the needs of the customer and the delivery of additional features and functionality. Each linear sequence produces a deliverable “increment” of the software.



Figure 2 Incremental model

# CHAPTER FIVE: IMPLEMENTATION PLAN

## SCHEDULE



Figure 3 Gantt Chart

## HARDWARE AND SOFTWARE REQUIREMENTS

**Software:**

1. MYSQL DATABASE: It is used for complete backend database of a webpage.
2. PHP: It is used for web programming.
3. CSS, BOOTSTRAP: They are used for web design.
4. JavaScript, Ajax, JQuery: They are used for web programming, real-time database handling and developing web page.
5. OpenCV: It is used for face recognition.
6. Tensor flow: It is used for object detection.

# CHAPTER SIX: EXPECTED OUTCOME

“Online Warehouse with Security” is an application that will provide a platform for different employees in a store to perform inventory activities. Also, the application will provide a real-time webcam security and automatic attendance of employees using face-recognition technology.

# References

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| [1] | "salesbinder," 2011. [Online]. Available: https://www.linkedin.com/company/salesbinder. [Accessed 23 December 2018]. |
| [2] | "scribd," [Online]. Available: https://www.scribd.com/document/101548793/Bhatbhateni-Supermarket-is-Report. [Accessed 24 December 2018]. |