Project Proposal on

Online Pharmacy Application

Module : STW304CEM: Web API Development

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# Introduction

## Background

Online pharmacy is online medical ordering application. The app helps to order medicine remotely via web api.

The need of app come with increasing medical emergency and range of people consuming medicine everyday. some of the medical problem requires medicine for lifetime or for a long range of time. people consuming medicine reqularly are rapidly increasing mostly on third world countries. And unavaiability of those medicine on time may cause serious emergency. In developing country like Nepal often one member in every family require regular medication.  
As medicine is topic of life or death, the proposed systems will help to order medicine from anywhere.

## Features

1. **Login / Register**

User can register and login to app.

1. **User can Order Medicine**

App will allow user to order medicines.

**Cancel Order**

User can cancel order they made.

1. **Admin Can add medicine**

Admin can add medicine on stock.

1. **Admin can process Order**

admin can change order status of any orders.

# Aim and Objectives

Aim

To Develop Pharmacy application that help its customers to order medicines.

Objectives

**Analyze Requirements**

* MoSCoW Analysis
* Risk Analysis
* Develop Use Case

**Design UML**

* Design Data Flow Diagram
* Design Class Diagram

**Develop App**

* Make Models
* Develop Routers
* Request with Postman
* Develop Frontend

**Test App**

* Write Test Cases
* Peform Test
* Check Usability

# Development Methodlogy

## Development Life Cycle

**Waterfall Technique**

Waterfall technique is SDLC(software development life cycle) that supports step by step execution by achieving its milestones one by another.

The reason i choose this methodology is by analyzing its requirements type. The development process is pretty straight forward towards its aim by achieving one by another objectives step by step.

Although waterfall method is choosen the process will involve test driven development and peform test regularly.

## Design Pattern

**Model View \***

This Design Pattern allow to develop model and view on different server which makes App scalable. And make it easy for further development and manages great configuration.

## Tools and Technology

**MONGO DB - Database**

This is NoSql database easy to implement and works great with Node js.

**Node JS - Server Side Javascript for API Development**

this is server side javascript scriptting library which is great on API Development and works great with real time app development making it more faster on performance.

**Express**

This is Javascript framework works top on node js making it easy to implement.

**React JS - Front End Javascript**

It is Javascript library for front end development which helps to make single page application which works without refreshing webpage while navigating.

**Bootstrap 4**

This is HTML/ CSS library which make easy front end implementation and good UI development.

# Conclusion

As per requirements Online pharmacy will help medical users to make order online. The process of achieving goal gonna be step by step as waterfall technique. Devlopment approach is mostly object oriented and implement MV\* framework for better modularity. The app will be developed with Express framework and node server on backend and react js on front end. And will try to achieve accessibility and avaibility across all devices.