Shift Handover Application for Nurses

Submitted in partial fulfillment of the requirements of the degree

**BACHELOR OF ENGINEERING IN INFORMATION TECHNOLOGY**

By

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**(AY 2020-21)**

# **CERTIFICATE**

This is to certify that the Project entitled “Shift Handover Application for Nurses” is a bonafide work of **Pawar Herschel Pravin (36), Prabhu Yash Rathod (39), Gajakosh Devdatta Ashok (9), Mourya Ayush Dilip (28)** submitted to the University of Mumbai in partial fulfillment of the requirement for the award of the degree of “Bachelor of Engineering” in “Information Technology”

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Supervisor

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# **PROJECT APPROVAL**

This Project entitled “Shift Handover Application for Nurses” by **Pawar Herschel Pravin (36), Prabhu Yash Rathod (39), Gajakosh Devdatta Ashok (9), Mourya Ayush Dilip (28)** is approved for the degree of Bachelor of Engineering in Information Technology.

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# **ACKNOWLEDGEMENT**

The success and final outcome of this project required a lot of guidance and assistance from many people and we are extremely fortunate to have got this all along the completion of our project work. Whatever we have done is only due to such guidance and assistance and we would not forget to thank them.

It is matter of great pleasure for us to submit the project report on “Shift Handover Application for Nurses”, as a part of our curriculum.

First and foremost, we would like to thank to our Director **Dr. Geeta S. Latkar**, for giving us an opportunity to do the project work. We would like to thank our H.O.D. and teachers for the valuable guidance and advice. They inspired us greatly to work in this project. Their willingness to motivate us contributed tremendously to our project.

And last but not the least a special thanks goes to my team members, who helped me to assemble the information and gave suggestions to complete our project.

# ABSTRACT

Shift Handover Application for Nurses is a JavaScript-based tool. This project divides its user types primarily into two groups: nurses and administrators. This initiative will assist nurses in saving energy and time when changing shifts. The data is automatically saved and retrieved, eliminating the need for nurses to spend extra time discussing patient changes.

# **LIST OF TABLES**

## Introduction

### SYSTEM PURPOSE

Our software's objective is to save data (for example, patient details, vital signs, rhythm, and so on) and then provide it to the nurse and doctor. This not only saves time by not having to perform all of the work manually, but it also makes it easier because the data is saved with timestamps and the nurse's details. Instead of keeping notes, nurses may focus on working hard and providing excellent care to their patients. Our program reduces the amount of communication required while changing shifts.

### SCOPE

This project's scope is fairly broad since a similar system may be utilized for other wards and data recording as well. Among them are:

* It is simple to use in prosthetics training for measuring progress.
* It employs safe techniques of storing and retrieving passwords and is faster than spoken communication.
* It is more precise since it uses timestamps.

### FEATURES

* safe
* simple to use
* dependable
* data exportable

## OVERVIEW

The following user kinds and functionalities are accessible in the software.

* Superadmin
  + Administrators are added by the Superadmin
* Admin
  + Administrators add nurses
* Nurse
  + Enter patient information
  + Access patient details
  + Edit patient details

## TECHNOLOGIES USED

* backend
  + - bcryptjs
      * + storing and retrieving passwords
    - cookie-parser
      * + Parsing cookies
    - cors
      * + Cross-Origin Resource Sharing
    - dotenv
      * + load environment variables from `.env` file
    - express
      * + node js web application framework that provides broad features for building web and mobile applications
    - mongoose
      * + manipulates the documents of the collection of the MongoDB database
    - swagger-ui-express
      * + generate API docs
    - yamljs
      * + YAML parser and encoder
* frontend
  + - react
      * + component-based front-end library responsible for the view layer of the application
    - react-bootstrap
      * + CSS styling library used for react
    - react-router-dom
      * + routing pages properly
    - react-redux
      * + used for building the user interface
    - axios
      * + promise based HTTP client for the browser and Node.js
* MongoDB
  + - Database for storing all the information

## EXISTING SYSTEM

You may do it the old-fashioned way with paper and ink, or you can create specialized software for each facility. Some large hospitals are already in the process of digitizing their systems.

## DISADVANTAGES OF CURRENT SYSTEM

1. The existing system is time-consuming and inefficient.
2. It necessitates the nurse physically recalling all of the patients' information and relaying it to the other nurse.
3. They can forget some little facts, which could lead to issues later on.

## CHARACTERISTICS OF THE PROPOSED SYSTEM

Our program outperforms the present system in the following ways.

1. It takes less time.
2. The nurses merely need to enter the information by phone or computer.
3. It is quite effective.
4. If you use the website, you do not need to install anything.

# **FLOWCHART**

Figure 1: Main Process

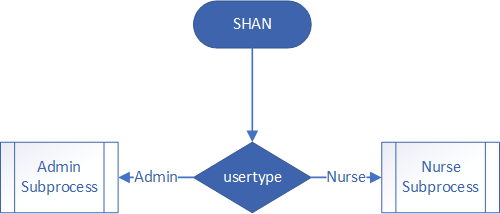
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Figure 2: Admin Subprocess

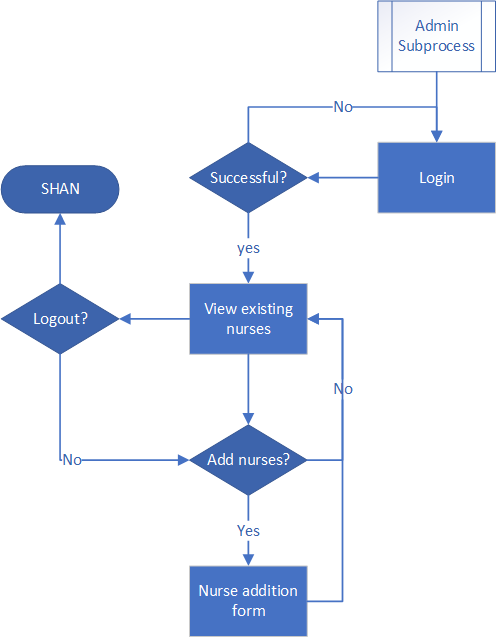
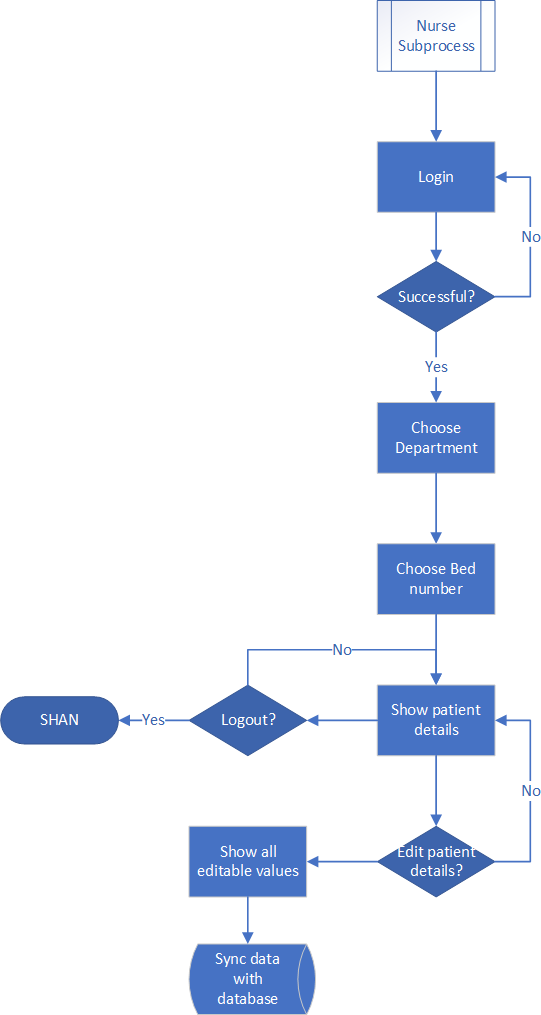
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Figure 3: Nurse Subprocess

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# **ER DIAGRAM**

# **SCREENSHOTS**

# **CONCLUSION**

The Shift Handover Application for Nurses is written in JavaScript and fits the requirements of the system for which it was designed. The system has achieved a stable state in which all bugs have been eliminated. The system runs at a high degree of efficiency, and all teachers and users are aware of its benefits. The system addresses the challenges it was designed to solve for the needed specification.

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# **FUTURE SCOPE**

Our project can be expanded in multiple ways like

1. We would like to add visual representation of data like pie charts and bar graphs for match stats and lifetime stats.
2. We would also like to add the ability for the user to change their profile picture.
3. The program should be able to sync across multiple devices
4. It should be usable as an API for websites and official tournaments
5. The security should be increased further by using hashing the passwords and adding conditions for the password
6. It would be useful if we could send email and an SMS for events like being invited to a team, verification being accepted/denied, 24 hours before a match, etc.
7. The ability to store more types of sports like basketball, hockey, table tennis, etc.