

**National University of Computer & Emerging Sciences**  
**Karachi Campus**



**Hospital Management System**

**Report**

**Programming Fundamentals**

**Section: E**

**Group Members:**

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## **INTRODUCTION**

Hospital management system is a system in which admin can add patient's records, also he/she can make changes in it like search for a record or edit a record or see the list of records and delete the records of the patients who are discharged.

## **BACKGROUND**

This project is based on a console application developed on C language in which we have done filing for managing records of patients. We have covered almost all the topics taught to us i.e. structures, filing, pointers, conditional statements, function recursion and many more.

## **PROJECT SPECIFICATION**

First user will be asked:

### **1. Sign Up:**

Here user will sign up if he doesn't want to login with the default username and password of the management system.

### **2. Log in:**

If user selects log in then he will be asked to enter the default username and password. He will be given three chances to enter correct username and password if he enters wrong username or password more than three times the program will be ended.

After logging in to the management system, a **choice screen** is displayed giving user 6 choices.

- **Add Record.**
- **Edit record.**
- **List record.**

- **Delete record.**
- **Search record.**
- **Exit.**

## **PROBLEM ANALYSIS**

We have gone through many hospital management systems and found that the major issues in the management systems were as follows:

- **Security issues:**

We have created a login and signup page for the user so that he/she can register his/her hospital and clinic first. The password given by user on sign up page will be **encrypted** and saved in the file so that no one will be able to see the password.

- **Searching for the record:**

In many management systems, we have seen that there was no search function so if the user want to search one record out of thousands much time was taken. We have created a search a function in which a user is asked for first name of patient and the fuction will fetch the whole record of patient.

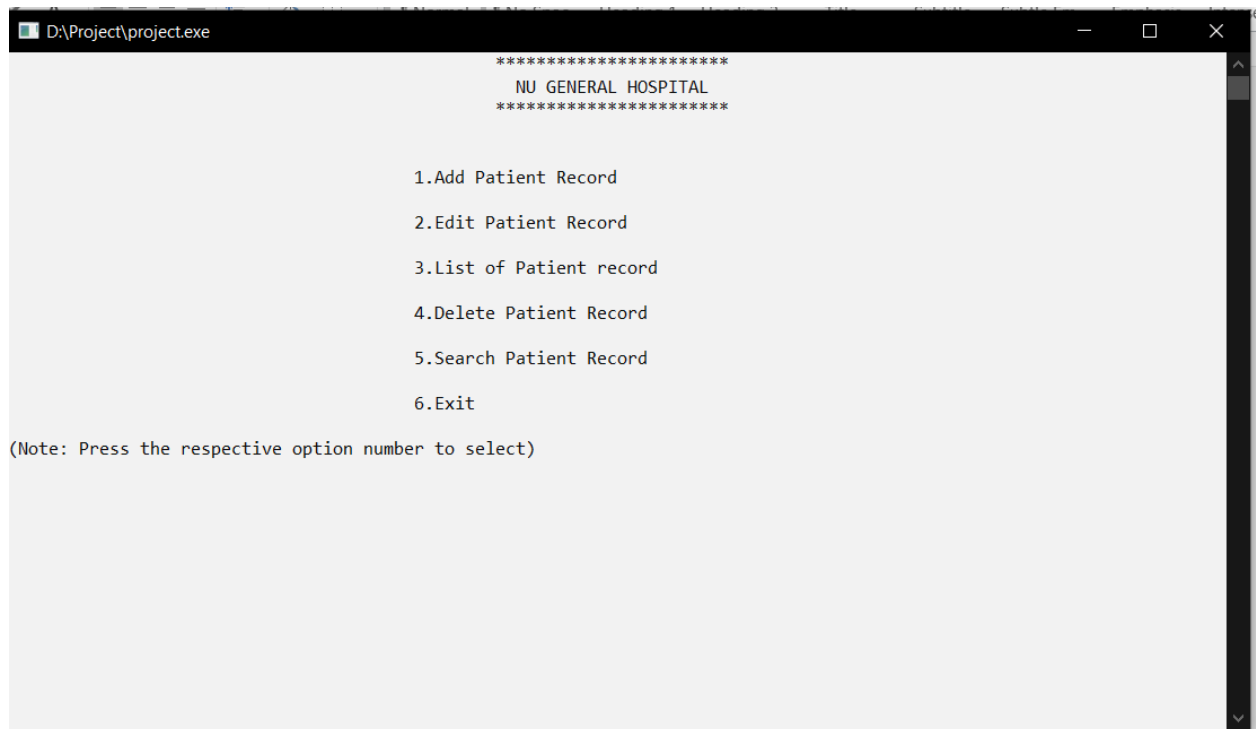
- **Editing the record:**

There was no editing function in management systems so we have added a function in our program, which will ask user the first name of patient, and then he will be able to update/renew the specific record.

# **SOLUTION DESIGN (Project Details, Functionality & Methodology)**

## **Project Details**

The project is a hospital management system in which the admin will first sign up. Once he have registered himself he can now log in to the system directly, where he can add patients record, view the records, delete the records, edit the records, and search for the specific record.



## **Functionality**

In the add function the admin will be asked to enter first name of patient, his last name, age, address, gender, email id, prescribed doctor, and the problem faced by patient.

In edit function, the admin can update the specific record by giving the first name of the patient, which he want to edit.

In delete function, the admin will be asked for the first name of the patient whose record he wants to delete.

In list function, the admin will be able to see the records of patient.

In search function, the admin will be able to search the specific record of patient.

## **Methodology**

### **Libraries:**

```
#include <stdio.h>
```

```
#include <conio.h>
```

```
#include <string.h>
```

```
#include <stdlib.h>
```

```
#include <windows.h>
```

### **Structures:**

There are two structures in our program namely patient and account. The structure of patient contains name, age, address, email, prescribed doctor, problem in their respective data type. While account structure contain username and password in string data type.

### **Functions:**

- void title():  
It contains the heading which is shown on all pages
- void welcomscreen():  
It contains the welcome screen.
- void signup():  
It contains sign up page in which admin can register himself
- void loginscreen():  
It contains the login system of management.
- void choice():  
It contains the page which asks the user what task he want to perform.

- void add():  
It takes the details of patients.
- void edit():  
It shows the page on which we can edit the specific record.
- void del():  
It shows the page on which we can delete the specific record.
- void view():  
This function gives all the records of patients.
- void search():  
It shows the page on where we can search the specific record.
- void exitme();  
It exits the management system.

## **IMPLEMENTATION**

The designed system implementation was done to replace a manual system with the computerized one. The objective was to put the tested system in to operation. Critical aspects of conversion are not disrupting the functioning of the organization. This phase gives us the clear pictures of our new system and all the points that have been carefully looked in when designing the computerized system.

Sincere efforts were taken for the implementation of the following goals.

- Maximizing the output reliability
- Maximizing the source test readability
- Minimizing the development time

## Results:

```
D:\Project\project.exe
OTE: Default Username is (Fast) and Password is (NUCES) if you want to change it go for sign up

*****
Developed By
Ishaquillah Siddiqui_20K-0148(Group Leader)
Sarim Latif Khan_20K-1644(Group Member)
*****

*****
#           WELCOME TO           #
#           NU GENERAL HOSPITAL   #
*****

For Sign up press 1
For Login press 2
```

```
*****
NU GENERAL HOSPITAL
*****

!!!!!!!!!!!!!! Add Patients Record !!!!!!!!!!!!!!!

Enter the first name: Ahsan

Enter the last name: Alam

Enter the gender (M for male) & (F for female): M

Enter the age: 24

Enter the address: Sector-10

Enter the contact number: 03336587459

Enter email: _
```

*****							
NU GENERAL HOSPITAL							
*****							
!!!!!!!!!!!!!! List of Patients Record !!!!!!!!!!!!!!!							
Full name	Gender	Age	Address	Contact-no	Email	Problem	Doctor
=====							
Ishaq Siddiqui	M	19	Sector-11A,NK	03352573936	k200148@nu.edu.pk	Fever	Dr.Saif
Sarim Latif	M	19	Gulberg	03331354869	k201644@nu.edu.pk	Flu	Dr.Arif
Sudais Asif	M	18	Bufferzone	03332456987	k201072@nu.edu.pk	TB	Dr.Asif
Faheem Ahmed	M	18	Nazimabad	03353033654	k201073@nu.edu.pk	Eyesight	Dr.Hamid
Ali Khan	M	26	DHA	03342568796	ali@gmail.com	TB	Dr.Ikram
Ahsan Alam	M	24	Sector-10	03336587459	ahsan@gmail.com	Allergy	Dr.Zubair
do you want to proceed (Y/N)							

## Conclusions:

We can hereby conclude that:

- The system effectively automated the functions involved in the processes being handled manually before.
- The system is secure & scalable. The system design has been done keeping user-friendliness and efficiency in mind.