Technological Revolution: Private Nurse(DoDo) – to Support Nursing Work

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ABSTRACT

Private obligation nursing isn't very much explored in Indian history of nursing writing. While it would seem private obligation nursing framed the primary road of work for prepared medical caretakers during the initial segment of the twentieth century, this kind of nursing appears to have vanished by the mid 1970's. Private Nurse will help the patients to follow their medical course and to take care of them as it reminds them the exact timing to take up their medicine. When a guardian opts for a Private Nurse it will show all the information about the patient directly. Doctors would be able to gets a report of their patient's routine of medicine intake and give them timely updates about medical description. This paper utilized a contextual analysis acquired from an oral history undertaking to inspect potential variables adding to the eliminating of private obligation nursing.

I. INTRODUCTION

Considering that the nursing team is fundamental for the care of patients and family members, the American Academy of Nursing, initiated a force task to examine the characteristics that precluded or facilitated nurses in developing their skills. From then on, "magnetic hospitals" have appeared, providing environments that favor the development of nursing activities. Consequently, they reach better results for patients (lower mortality rate, lower incidence of pressure lesions, greater satisfaction with the care received, and the presence of a more sound culture of safety), professionals (higher level of professional satisfaction and lower level of burnout), and organizations (decreased intention of leaving the job). [1] In healthcare organizations, the nursing team is responsible for 95% of care that patients receive during their hospitalization. Thus, knowledge of the characteristics of the environment, such as the quality of the relations with the medical team, and the autonomy and control that nurses have in the resolution of problems that affect patient care, should be a priority of the managers who are concerned about the excellence of the institutional results.

The reasons for this were studied, and the likely causes of this dissatisfaction were listed. [3] The incorporation of new technologies, the increased complexity, the fragmentation of care and the inconstant presence of the medical team created a situation in which the nurse assumed new responsibilities without, however, reaching due recognition of their authority in this process.

1.1 Objectives : The main reasons why PRIVATE NURSE is implemented:

Children who live away from their parents can't physically take care of their old parents, Private Nurse would do it for them. [2] They can keep a regular check on their parents' health status and if they are taking their medicines on time not. It would be easy for doctors to monitor their patients' medical activity, that how much the patient is taking care of himself/herself.

1.2 Benefits :

It would be easy for doctors to monitor patient's health. Children would be able to take more care of their parents. Patient's would get a better caretaker

1.3 Target Audience

Here we focus on the market segmentation of the product or we can say finding out people for whom this product is really helpful. [4] Market segmentation deals with dividing of market to potential prospects into segments, by characteristics. Prospects of product would NRIs, people working in corporate sector, people living away from home, college students etc.

1.3 Proposal:

Project focuses on an IoT based device and a website, which will help elderly people to take medicines on time and doctors to monitor patient's routine remotely. The user interface of the website will be created by using HTML, CSS, PHP and Java script and a model. The data will be stored securely by using MySQL database. The details of the project members and topic uploaded will be accessible to only admin, doctor and patient's family. The main motive of this project is to provide user friendly environment for heirs and doctors so that they can monitor their parents' health. They will be able to take care of their loved ones remotely in a way that is very helpful and efficient.

1.4 Organization :

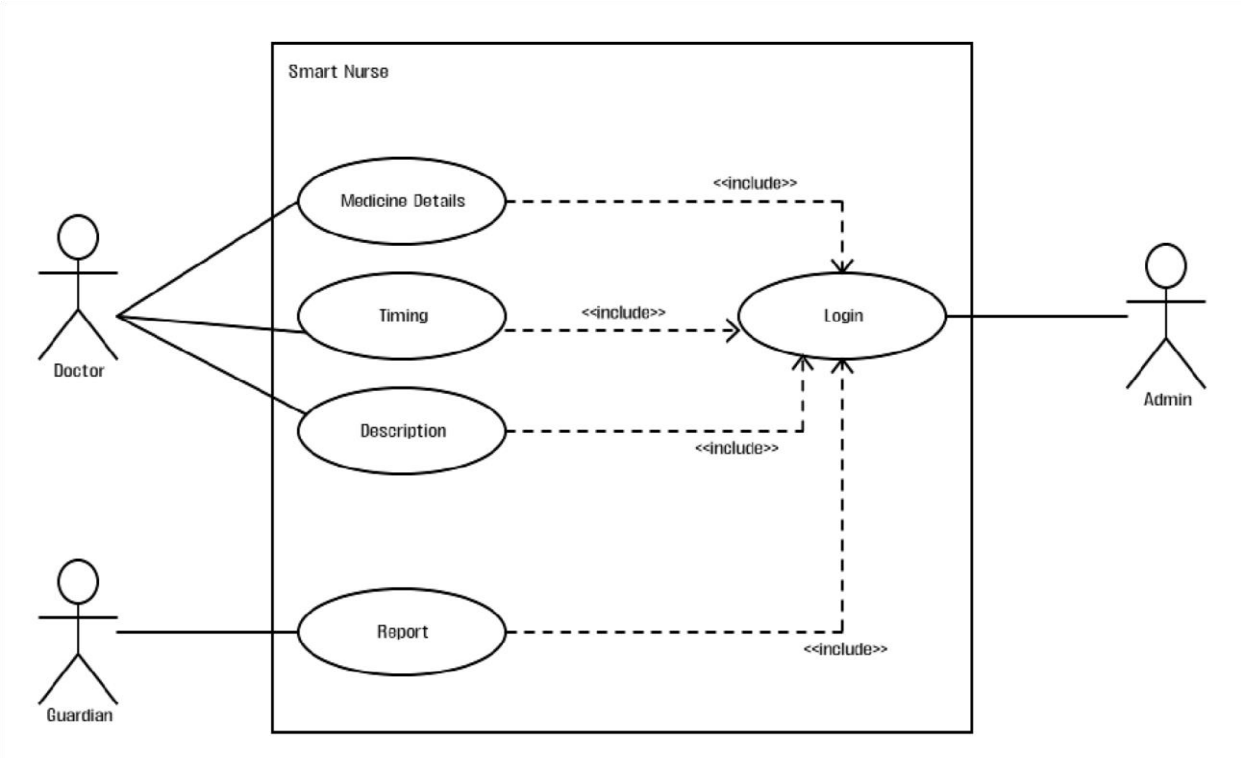
This IoT device has two type of user who have different rights and privileges. Each of the group user manage their role in an efficient way. As soon as Admin/doctor uses device he/she will be asked to login with their unique username and password. [5] Only then he/she can proceed further, then user will start and choose the operation he/she wants to perform. Doctors and Guardians will be able to search, review and feedback the patients. Admin have access to do any modifications in the interface

The admin will be responsible for all data maintenance and device maintenance. Every time when it gets a new hit for the device admin will keep a track on them. [6] Admin is the only member who is responsible for the device activity. Admin will secure the data of the patients as well as the doctors. Admin will have access to all the modules. In case of any fault to the device admin will be responsible for the maintenance.

Doctors will be responsible for upload description, medicine details, timings of intake and updating and reviewing reports. [5]

Guardians can check patient's report and timing of their medicine and can analyze their routine of medication.

II. PROPOSED DESIGN



III. PROCESSING ALGORITHM

Step 1. Doctor will need to give the prescription.

Step 2. Medicines shall be put in respective slots.

Step 3. Timer setup initialization.

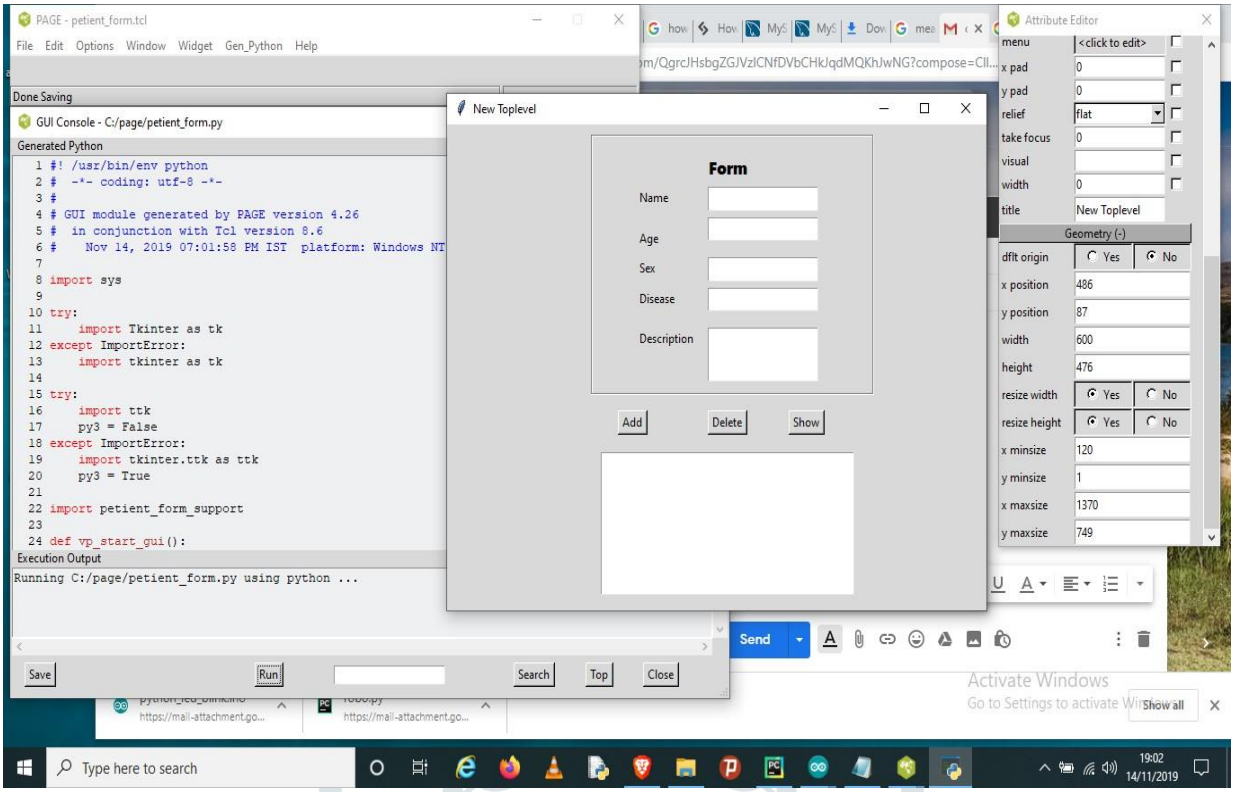
Step 4. Shall put in switch ON condition.

Step 5. Buzzer sounds and slot opens for particular medicine at specific time.

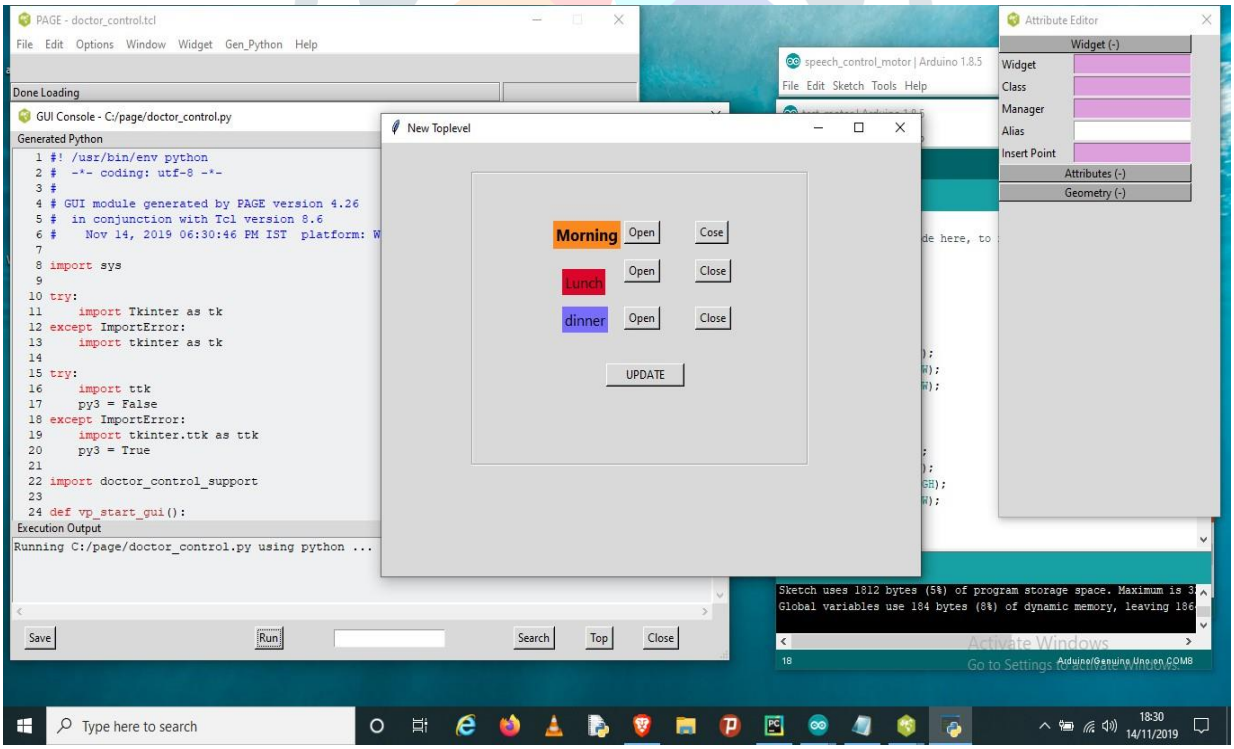
Step 6. Patient need to take the medicine and close the slot.

Step 7. Alarm goes down.

IV. PATIENT INTERFACE:



V. DEVICE INTERFACE



VI. PROPOSED PROTOTYPE:

VII. TESTING OF THE PROPOSED MODEL:

Software testing is a process to be executed for refinement of a program or application while searching for software bugs. [7]It is the process which leads to verification and validation of the software to meet the business and technical requirements of the program or application. [8] It checks whether the created project is working fine as expected or not and if there are some arising problems then how that can be dealt with proper solutions. Testing can be described into following parts:

1. **Process:** Point states that testing is a process than that of a single activity.

2. **All Life Cycle Activities:** testing works in accordance with software development life cycle. The test includes documentation like requirement gathering and design specifications of the project. [10]

3. **Static Testing:** It is responsible for testing and finding defects of the system without executing code of the project. It is performed during verification process of code. Reviewing of the documents involves this testing and also includes static analysis.[12] This is cost effective way of testing.

4. Planning: Planning is crucial stage of the project where we need to decide that what to do ahead and what we actually want from our project. [13] Here we plan activities as per our requirements and design the control for test activities.

5. Preparation: It involves designing of test cases, test conditions and also verifies what role testing can play here.

6. Evaluation: During evaluation, results are checked to verify that whether they are matching our expected outputs or not. [10] Evaluation should be done under test and completion area, which is helpful in declaring that software product has passed the tests or not.

VIII. CONCLUSION:

The final aim of this project is to provide a user-friendly device for users to manage their health and the ones they love without much hassle in an efficient way. Children who live away from their parents can't physically take care of their old parents, Private Nurse would do it for them. They can keep a regular check on their parents' health status and if they are taking their medicines on time not. It would be easy for doctors to monitor their patients' medical activity, that how much the patient is taking care of himself/herself.

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