

## Semester IV Software Engineering Project

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**Topic:** Medicine Database and Automated Prescription Printing

### Problem definition:

The software enables efficient cataloguing of prescriptions by a doctor by providing them a platform to choose from all the medicines, their doses, write personal advice, etc. The personalized prescription can then be printed and given to the patient. The patient details are also recorded in the prescription and stored for easy future access.

### Modules:

1. **Authentication Module** – The doctor needs to login to access his patient records, or can use the application in guest mode.
2. **Prescription Editor** – Edit all the fields of the prescription, eg patient details, medicines prescribed, dosage, misc details, doctor's advice, etc
3. **Medicine search** – Search from a wide database of medicines and choose the medicine to prescribe
4. **Procedure Search** – Search from a wide database of medical procedures to be advised/prescribed to the patient
5. **Printing Module** – Print the finished prescription through a connected printer.
6. **Patient History** – Show previous prescriptions to patients, search through name, age, etc.

### Existing system:

In the existing system the doctors write the prescription manually. This may be hard to understand for the patients and also the doctor needs to remember the medicine's name and the dosages for each patient when prescribed. Any misinterpretation by the patient or pharmacy may lead to catastrophic effects on the patient's health.

### Problems in existing system:

1. Hard to understand the manually written prescription.
2. The patients may unknowingly get some other dosage of the medicine due to misreading.
3. Doctors may face difficulty in remembering the names of the medicine and the dosage.
4. Manually written prescription may be lost but it can be saved in the software.

### Proposed system:

The proposed solution digitizes the prescription composing and printing process, making it resilient to misinterpretation and physical damage. The prescription backup along with the patient details ensures the doctor can look up the previous medical history of their patients when required without any guesswork required.

### The Medicine Database and Automated Prescription Printing has following advantages:

1. Doctors can easily enter the details of the patient and the medicine's prescribed to them by accessing the database in the software.
2. This prescription can be saved in the software and It is easy to access the details when required.
3. Reduces paper work and saves time.
4. It provides an option to edit any prescription if required.
5. All the details are secure as there is a login module.