



Software Design

Software Documentation Specifications

Team Members

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1 Functional requirements ("shall lists")

1.1 Medical Practitioner Dashboard (login access required)

The doctor/nurse should be able to update the patients information who is consulting at that time of consultation. The dashboard will also have the following functionalities:

1.1.1 Patient Profile

- Patient name
- Patient Surname
- Patient Identification Number (Primary search key)
- Patient Address
- Patient Next of Kin Contact details
- Patient details
- Patient Employment status
- Patient Marital Status
- Practitioner visited history
- Patient payment history
- Patient payment method (e.g medical aid)
- Patient illness

- Patient diagnosis
- Patient Prescription
- Patient previous prescriptions from other practitioners (valid for a certain period)
- Medication given to patient
- Patient allergies

1.1.2 Practice Profile

- Doctor / Nurse (User Authentication - Required)
- Practice name
- Practice number
- Practice address
- Practice operating hours
- Inventory available (System should be able to alert if suppliers are low)

1.2 Systems Admin Dashboard

It should have all of the functionalities mentioned above and the following functionalities:

1.2.1 Doctor/Nurse Profile (Systems Admin authentication)

We need this to keep track of which doctor makes changes to the database.

- Doctor Name
- Doctor Surname
- Doctor ID number
- Doctor practice number
- Doctor contact details
- Doctor Practice history

2 Nonfunctional requirements

2.1 Usability

2.2 Reliability

2.3 Performance

2.4 Supportability

2.5 Implementation

2.6 Interface

2.7 Packaging

2.8 Legal

3 Input Requirements

3.1 Patient identifier key - ID number

3.2 Doctor/Nurse identifier key and user access - Practice Number

3.3 System identifier key and user access - ID number

4 Process Requirements

4.1 Database transaction

The system must be able to send, receive and trigger transaction to database system.

4.2 Data integrity

Commit transactions that are completed and/or rollback unfinished or time-out transactions.

4.3 Data validation

Data error from the users end and from the back-end database-processing end must be gracefully handled. There will be data validation and error-handling routines as part of the patient registration system.

4.4 Performance

Must resolve locking issues and must not allow concurrent access to patient information. Send, receive and display user messages to assist the over-all user experience.

4.5 Data repository

The system will maintain the existing patient information on the database as the main repository of data.

5 Output Requirements

5.1 Transaction summary and confirmation

5.2 Exception reports

System exception reports must be consolidated to record special patient records or special conditions not normally handled .Examples are diabetics, high/low blood pateients, epileptic.

5.3 Registration Reports and summaries

System adminstartor and Doctors/nurses must be able to extract summarized and rolled-up data into meaningful information. All records will be archived but accessible on demand.

6 Software Requirements

6.1 Client Operating Systems

Windows, Android