* Functional Requirements
  + The system shall show a doctor’s current patients
  + The system shall allow a doctor to view patient prescriptions
  + The system shall generate a monthly report listing each clinic and the number of patients treated by each doctor
  + The system shall check dosage of prescribed medications to prevent overmedication
  + Structured:
    - Function: Add patients to database
    - Description: Allow receptionist to add patients to database
    - Inputs: Patient name, address, phone number, emergency contact, etc
    - Source: User input from receptionist
    - Outputs: Confirmation of data, error for repeat data.
    - Destination: Secure Database
    - Action: Sanitize data, check for duplicate data, add to database
    - Requirements: Receptionist login, patient info
    - Precondition: Database exists
    - Post-condition: user in database
    - Side effects: none

|  |  |
| --- | --- |
| Condition | Action |
| Patient Exists | Ask for confirmation to update data |
| Patient doesn’t exist | Sanitize and Add to database |

* + Structured 2:
    - Function: Search for patients
    - Description: Allows doctors, nurses and receptionists to view patient data
    - Inputs: patient name, doctor, or clinic
    - Source: input from user, Database
    - Outputs: Patient data, error for patient not found
    - Destination: to screen/printout
    - Action: Take user input (patient name and/or clinic and/or doctor), search database for criteria matching input. If none found, display error. If found display data.
    - Requirements: Populated database, User input, login
    - Pre-condition: Login
    - Post-condition: none
    - Side effects: none
  + Structured 3:
    - Function: edit Data
    - Description:The system shall allow a nurse or doctor to edit patient Data
    - Input: Patient name, current information, new information
    - Source: user input, database
    - Output: confirmation of new information
    - Destination: database
    - Action: Take patient name from user, lookup current information from database. Take updated information in each field to be change, sanitize data, store in database
    - Requirements: Database, patient exists, login, user input
    - Pre-condition: login, patient exists
    - Post-condition: patient data is overwritten with new data
    - Side effects: none
* Non-functional Requirements
  + Database will be secure, prevent unauthorized access.
    - Authorized personnel include: Doctor, nurse, Receptionist, managers
    - Password protected database
    - Safety/security requirements
  + Medical staff shall be able to use all the system functions after four hours of training. After this training, the average number of errors made by experienced users shall not exceed two per hour of system use.
    - Usability Requirements
  + Database lookup should be quick
    - Less than 10 seconds between search and display of relevant information
    - Performance Requirements
* Requirements discovery
  + Interview
    - Learn reasons for each action
    - General overview of tasks
    - Priority definition
    - Improving ease of use
  + Ethnography
    - Step by step
    - No missing information about current routine
  + By using both you could use ethnography to monitor the current software and workflow, getting an idea for how the current software works and afterward you could have an interview where you go through the recorded data and discuss improvements, quality of life changes, and any questions.