

Developer documents version1.2

Number of frontend pages needed

Because we have already done this part, I have minimized the information in this part.

1. The landing pages: must include logo, Marketing page (must be produced by the marketing and sales team)
2. Login page for both administrators/doctors, and one for the administrator, these are called access control
3. One page for the patient view
4. One page for the administrator/doctor view
5. About us page and contact information
6. Secure messaging system: we will use a microservice for this feature

Patient view

The patient view will be divided into two parts one is for displaying information and the other is for the patient to communicate with the healthcare facility

Patient can view but not change

One is for the patient history these include: patient name age sex hospital identification number

Name of patient (first name, last name)	John doe
Age	44
Sex	Male
Identification number	De01441
Contact information (phone number)	0123465938
physical address	Passau, Bayern, Germany 31 app nuberstreet

Insurance information: insurance number, name of company and type of coverage they have

insurance number	08654654864
name of insurance company	Tk insurance
Private/public insurance	Public
Type of insurance (full, partial)	Full coverage

Information for next of kin and emergency contact information: name contact information and relation to patient

Name of next of emergency contact	Jane smith
Phone number	04379879465
physical address	Passau, Bayern
Relation to patient	Wife/spouse

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Disease profile including the ICD 10 code for the disease and secondary diagnosis
common signs and symptoms

International preferred name ICD 10	Cardiac arrhythmia, unspecified.
ICD 10 code for main diagnosis	I49.9
Common signs and symptoms	Chest pain, fever, vomiting
Secondary diagnosis	Type 2 diabetes mellitus Without complications Controlled
ICD 10 code for secondary disease	E11.90
Common signs and symptoms	Frequent thirst, high blood glucose level

Medication list: including what medication they are currently taking and how to take them properly including any drug-drug or food-drug interactions

Primary Medication name	atenolol
Purpose of primary medication	Blood pressure reduction
Dosage for the particular patient	Once a day
Common side effects	dizziness lightheadedness tiredness lack of energy
Common drug-drug interactions	None
Common food-drug interactions	None
secondary Medication name	Not applicable
Purpose of primary medication	Not applicable
Dosage for the particular patient	Not applicable
Common side effects	Not applicable
Common drug-drug interactions	Not applicable
Common food-drug interactions	Not applicable

Will show the patient history this includes all the patient visits to the health care facility: these will be populated by the database

Number of visits	Date of visit	Reason for visit	Attending physician	
1	12/04/2020	Routine visit	Dr. Michael	
2	05/10/2023	Infection treatment	Dr. Claudia	

Patient can input information

Any adverse drug reaction: text box with submit and delete buttons

any new bodily changes the experience: text box with submit and delete buttons

input blood pressure and hearth rate information, ideally this is done automatically but if the technology is too difficult then manual input is used

Adverse drug reaction	[input text]	Submit
Blood pressure input	[input text]	Submit
Heart rate monitoring	[input text]	Submit
Oxygen saturation	[input text]	Submit

Medication and monitoring reminders

The medication reminder is a calendar feature with in the software that has notifications when the patient should take their medication and when they should monitor their heart rate and blood pressure

Administrator/Doctor view

Main point of this view is to update the database and database management.

Patient personal information: demographic information, insurance information

Medical history of the patient: diagnostic information, medication information

Patient information:

Name of patient (first name, last name)	[input text]
Age	[input text]
Sex	[input text]
Identification number	[input text]
Contact information (phone number)	[input text]
physical address	[input text]
	[input text]

Insurance information:

insurance number	[input text]
name of insurance company	[input text]
Private/public insurance	[input text]
Type of insurance (full, partial)	[input text]

History of diagnosis:

International preferred name ICD 10	[input text]
ICD 10 code for main diagnosis	[input text]
Common signs and symptoms	[input text]
Secondary diagnosis	[input text]
ICD 10 code for secondary disease	[input text]

Common signs and symptoms	[input text]
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Medication list:

Primary Medication name	[input text]
Purpose of primary medication	[input text]
Dosage for the particular patient	[input text]
Common side effects	[input text]
Common drug-drug interactions	[input text]
Common food-drug interactions	[input text]
secondary Medication name	[input text]
Purpose of secondary medication	[input text]
Dosage for the particular patient	[input text]
Common side effects	[input text]
Common drug-drug interactions	[input text]
Common food-drug interactions	[input text]

The patient visit history:

Number of visits	Date of visit	Reason for visit	Attending physician	
1	[input text]	[input text]	[input text]	
2	[input text]	[input text]	[input text]	

Database design

A database that is empty but that will be either populated by an EMR plugin or manual input from an administrator. I have asked my friends about this, this is the only good solution Relational Databases (e.g., MySQL, PostgreSQL) will be used.

The database should have three separate tables: one is for the patient information and one is for the patient education material.

Table one columns:

1. Name of patient (first name, last name)
2. Age
3. Sex
4. Identification number
5. Contact information (phone number)
6. physical address
7. insurance number
8. name of insurance company
9. Private/public insurance

10. Type of insurance (full, partial)
11. International preferred name ICD 10
12. ICD 10 code for main diagnosis
13. Common signs and symptoms
14. Primary Medication name
15. Purpose of primary medication
16. Dosage for the particular patient
17. Common side effects

Table two columns: The patient visit history

1. Number of visits
2. Date of visit
3. Reason for visit
4. Attending physician

Table three columns: Information that the patient inputs

1. Adverse drug reaction
2. Blood pressure input
3. Heart rate monitoring
4. Oxygen saturation