

THE ASSISTED HEALTHCARE SYSTEM (AHS)

Under the supervision of DR. Islam Elgedawy

Project description:

Our system is about health care and medical care using virtual reality (VR), Artificial intelligence (AI), databases, and Big data analysis.

List of names:

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CUSTOMER REQUIREMENTS:

1. Smart device anyone can buy connected to the system that can send the location to the hospital to send an ambulance if there is any accident happens.
2. Rabid and easy communication with the client.
3. The user should enter his personal data and save it in database.
4. System should analyze data entered and make plans to help the user.
5. Send Alert to his emergency contacts before any problems or complications occur.
6. The device checks the nearest hospital to patient.
7. Periodic follow-up on Vital signs , such as blood pressure or heart rate readings.
8. Create empathetic interaction using voice feedback.
9. Properly document patient note.
10. Giving recommendation about doctors information to the patient.
11. Make an appointment with Virtual doctor
12. Patient needs a medication schedule or planner to remind him to take his medicine on time.
13. The latest news about preventative care.
14. Increase the accuracy by granting an AI that can check if there is interaction that may occur between

the drugs used or if the patient have an allergy to specific medication.

15. Psychological support for the patient and his family
16. To make the patient aware of his state of health to enable him to participate in decisions related to his treatment.
17. Customers expect healthcare services to be personalized to their specific needs.
18. Maintain confidentiality of the patient's condition.
19. System help to implement appropriate measures to prevent the spread of infections and other hazards to patients, staff, and visitors
20. The System manage your daily meals according his health condition.
21. system calculate the perfect weight.
22. system calculate the patient calories consuming during the day
23. the system figures the patient sleeping time and warn him if he get less time than his needs according to data base system
24. the system suggest apps for workout time according to the patient health condition.
25. Minimizing of errors and adverse events.

26. Increased quality of care and enhance healthcare outcomes
27. Improve provider and patient satisfaction through our software and if it necessary can use technical support.
28. The system will generate a diagram monthly to covered distance state.
29. Electronic questionnaire survey will be published monthly on the app for Comments and Complaints.
30. Facilitate payment methods via (Visa, Fawry Pay, Master Card, and Vodafone Cash)

Subsystems names & functions:

1. Registration which get from the patient all the data about national id, his phone number and also get his emergency contacts and maintaining confidentiality of data.
2. collecting patient data on a data base system and the diseases he suffers from and his health conditions .
3. AI suggest the suitable doctor according to the patient's health condition.
4. Patient that has chronic disease use a smart device to follow-up his health condition and if there any bad record the patient and his emergency contact will receive alert.

5. Medical consultation with bots using artificial intelligence to ask them and take advice from them for treatment, and if the bot cannot understand the situation, then the medical consultation becomes with a real doctor online, or he can book appointment in the hospital.
6. The system checks if the medicines that will be taken in the same time, doesn't have harmful effects on patient, if medicine will have harmful effect, system refuses to dispense medicine .
7. If the patient is allergic to the medicine and the doctor did not pay attention and made a request for the medicine, the system rejects the request.
8. The system reminds you of medication times ,sleeping time and workout time
9. The device checks the amount of the medicine and make alert before the end of medicine.
10. The system will provided with language translation to communicate with patients who speak different languages
11. Bots using AI with the help of doctor and the properly notes suggest the latest news about preventative care.

12. Calculate user weight periodically to detect any change in the weight
13. system detect the steps and the distance covered by the patient to calculate his calories consuming during the day
14. Survey system which rate the survey and connected with the technical support team
15. Payment method which facilitate the way of payment

Traceability Matrix:

CUSTOMER REQUIREMENTS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
2	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0
3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
5	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
6	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
10	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
12	0	0	0	1	0	1	0	1	1	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
14	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	1	1	1	0	1	0	1	0	0	0	0
17	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
18	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
21	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0
22	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0
23	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
25	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0
26	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0
27	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
28	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1