

Introduction to Systems Analysis, CSC 375

Requirements Document

Project Title	Remote Patient Monitor
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Group #	Group 6

Type of Requirements	Requirements		
Business Requirements	1	Requirement:	The system should improve patient health outcomes and satisfaction..
		User Story:	As a hospital administrator, I want the system to facilitate real-time remote monitoring so that we can enhance overall patient satisfaction and health outcomes.
	2		
	3		
Business Rules	1	Requirement:	The system must comply with all relevant privacy and security regulations.
		User Story:	As a compliance officer, I want the system to adhere to regulations to ensure the privacy and security of patient data.
	2		
User Requirements	1	Requirement:	Patients and healthcare providers need to be able to easily access and use the system
		User Story:	As a patient, I want to be able to easily upload my health data through an intuitive user interface so that I can use it without needing technical knowledge.
	2	Requirement:	The system should offer multilingual support, allowing users who speak different languages to use it without language barriers.
		User Story:	As a patient with a different native language, I want the system to be available in multiple languages, so that I can easily navigate and understand my health information without language being a barrier
	3	Requirement:	The system should include educational resources about common health conditions, medications, and best practices for health

			management, enabling patients to be well-informed about their health.
		User Story:	As a patient, I want to have access to educational resources through the system, so that I can learn more about my health conditions, medications, and how to manage my health effectively, fostering a sense of empowerment and proactive health management.
Functional Requirements	1	Requirement:	Real-time alerting functionality to immediately notify healthcare providers when a patient's health condition shows signs of deterioration.
		User Story:	As a doctor, I want to receive immediate alerts when a patient's vital sign readings show anomalies so that I can take swift action.
	2	Requirement:	Data visualization tools to help healthcare providers interpret patient data more easily.
		User Story:	As a doctor, I want the system to provide a dashboard that displays a patient's historical and current health data so that I can more easily identify trends and potential issues.
	3	Requirement:	
		User Story:	
Non-Functional Requirements	1	Requirement:	The system must have high availability and reliability.
		User Story:	As a medical IT administrator, I want to ensure the system has 99.9% uptime so that it's always available in emergencies.
	2	Requirement:	The system should have robust security to prevent unauthorized access.
		User Story:	As a security analyst, I want the system to have strong security measures like multi-factor authentication to prevent data breaches.

Use Cases: (At least 2 Use Cases for your project)

Name	Real-Time Patient Monitoring
Participating Actors	Healthcare Provider
Goals	To monitor patient health data in real-time through the system, receiving alerts for any anomalies that indicate a potential health issue.
Triggers	The healthcare provider logs into the system; the system receives new health data from patients.
Pre-Condition	The healthcare provider has access to the system; patients have consented to remote monitoring; the system is operational.

Post-Condition	Healthcare providers are informed of patient health status; necessary actions are taken in response to health data.
Basic Flow	<ol style="list-style-type: none"> 1. Healthcare provider logs into the system. 2. The system displays the latest health data from patients. 3. If an anomaly is detected, the system alerts the healthcare provider. 4. The healthcare provider reviews the alert and decides on the next steps. 5. The healthcare provider contacts the patient if necessary.
Alternate Flows	<ol style="list-style-type: none"> 1. Healthcare provider notices the absence of recent data updates for a specific patient. 2. Healthcare provider initiates a data update request. 3. The system attempts to retrieve the latest data. 4. The system provides feedback on the status of the request 5. Healthcare provider takes appropriate action based on the status of the request. 6. The system logs the actions taken by the healthcare provider for future reference and auditing.
Exceptions	System downtime: Alerts are queued and sent after the system is back online.
Qualities	

Name	Multilingual Support
Participating Actors	Patient
Goals	The system interface and educational resources are available in multiple languages, allowing non-native speakers to easily navigate and understand their health information.
Triggers	The patient logs into the system; the patient requests information or resources.
Pre-Condition	The patient has access to the system; the system supports multiple languages.
Post-Condition	The patient receives information in their selected language; patient comprehension and satisfaction are improved.
Basic Flow	<p>The patient logs into the system.</p> <p>The patient selects their preferred language.</p> <p>The system displays the interface and resources in the selected language.</p>

	The patient navigates the system and accesses health information or resources.
Alternate Flows	<ol style="list-style-type: none"> 1. The patient attempts to select their preferred language. 2. The system detects that the requested language is not available. 3. The system notifies the patient that their preferred language is not available. 4. The system suggests the other language option or the default language. 5. The patient decides whether to continue with the suggested language or try another option. 6. The system confirms the patient's selection and updates the interface and resources accordingly. 7. The system logs this incident for future improvement.
Exceptions	System error prevents language setting: The system reverts to a default language.
Qualities	