Project: Streamlining Hospital Operations through Business Analysis

Solution

Note: The deliverables depicted here are a sample solution. Use this solution as a guide and means to compare your solution.

1. Business Requirements Document (BRD)

Description: The BRD is a formal document that outlines the business requirements and the proposed solution to address the hospital's operational challenges. It details the needs of the hospital's stakeholders, the scope of the project, and the functional and non-functional requirements.

Structure:
Introduction: A brief overview of the project, including the project name, description, and objectives (for example, improve patient management, reduce communication delays, and enhance hospital operations).

Project Scope: Define what is included and excluded in the project scope. For example:

- In-scope: Implementation of an electronic medical records (EMR) system and inter-department communication tools
- Out-of-scope: Hospital facilities management, clinical care procedures

Stakeholders: List the key stakeholders (such as hospital administration, doctors, IT department, and patients) and their roles in the project.

Business objectives: Clearly define what the hospital aims to achieve with this project (e.g., reducing patient wait times by 20%, improving inter-departmental communication).

Functional requirements:

- BR-01: Implement a centralized EMR system for tracking patient data.
- BR-02: Implement an automated patient registration system that integrates with the EMR.
- BR-03: Enable real-time communication between doctors, nurses, and administrative staff.
- BR-04: Automated inventory management

Non-functional requirements:

- System performance (response time under 2 seconds)
- Data security and compliance with healthcare regulations (e.g., HIPAA)
- Scalability of the solution to accommodate future growth

Assumptions: List any assumptions such as "All departments will be available to provide feedback on the new systems."

Constraints: Define any project constraints such as budget limitations or fixed deadlines.

Risk management: Identify risks (resistance to change) and mitigation strategies (like training sessions).

2. Stakeholder Analysis Chart

Description: An Excel or table-based chart that identifies the stakeholders involved in the project and their level of influence, interest, and involvement in the project.
Structure:

Stakeholder	Role	Interest	Influence	Involvement
Hospital Admin	Project Sponsor	High	High	Final approval
Doctors	End Users	Medium	Medium	System feedback
IT Department	Technical Support	High	High	System implementation
Patients	System Beneficiaries	Low	Low	Feedback post-implementation

3. Gap Analysis Table

Description: A table that identifies gaps between the current state and the desired future state of hospital operations.
Structure:

Current State	Desired Future State	Gaps Identified	Proposed Solutions
Manual patient registration process	Automated patient registration system	Long wait times, human errors	Implement automated registration system
Paper-based patient record-keeping	Centralized electronic medical records (EMR)	Records are lost or misplaced	Implement centralized EMR
Delayed communication between departments	Real-time communication between departments	Delayed response to patient needs	Introduce real-time messaging systems
Manual inventory tracking in pharmacy	Automated inventory management	Inventory shortages and overstock	Implement an automated inventory tracking system

4. Process Flow Diagrams (Lucidchart)

Current State Process Flow:

- **Description**: Visualize the hospital's current workflow for patient registration and record-keeping, highlighting inefficiencies.
- **Diagram components**:
  - **Start**: Patient arrives at the hospital.
  - **Task 1**: Patient manually fills out a registration form.
  - **Task 2**: Administrative staff enters the form data into a system.
  - **Task 4**: Treatment is provided based on manually accessed records.
  - **End:** Patient Receives the treatment.

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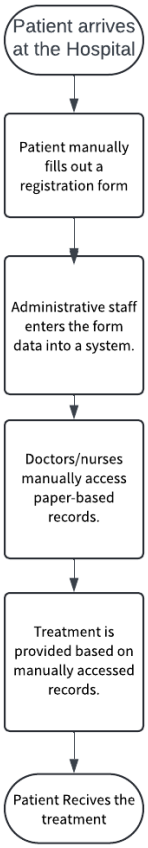
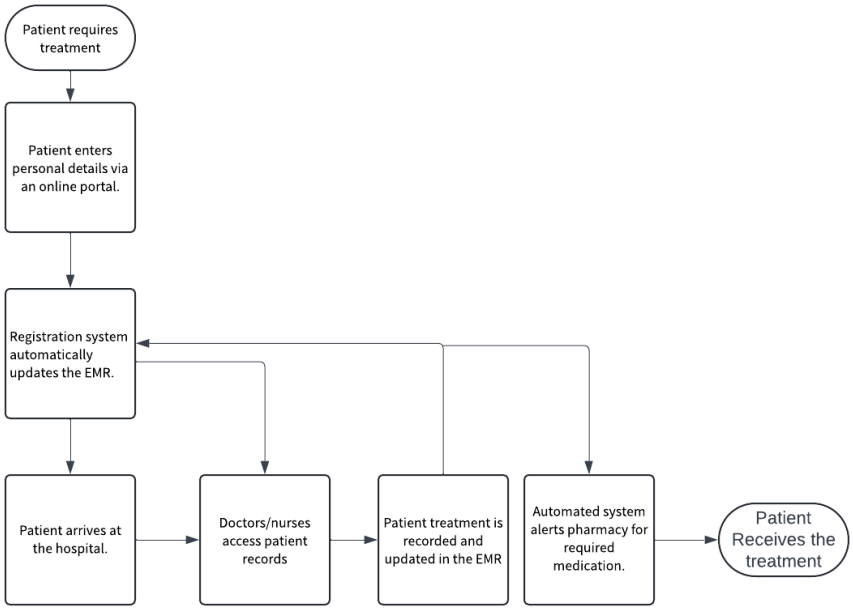


Future State Process Flow:

- **Description**: Create a future state flow that improves upon the current process, using an EMR and automated systems.
- **Diagram components**:
    - **Start**: Patient enters personal details via an online portal.
    - **Task 1**: Registration system automatically updates the EMR.
    - **Task 2:** Patient arrives at the hospital.
    - **Task 3:** Doctors/nurses access patient records in real-time via the EMR.
    - **Task 4:** Patient treatment is recorded and updated in the EMR.
    - **Task 5**: Automated system alerts pharmacy for required medication.
    - **End**: Patient Receives the treatment.



5. Prioritization Matrix

Description: An Excel-based matrix to prioritize the business requirements based on impact and feasibility
Structure:

Requirement ID	Title	Impact	Feasibility	Priority
BR-01	Centralized EMR system	High	Medium	High
BR-02	Automated patient registration	Medium	High	High
BR-03	Real-time communication	High	Medium	High
BR-04	Automated inventory management	Low	High	Medium

6. Technology Assessment Document

Description: A document that evaluates the current IT infrastructure and proposes technological improvements to support the hospital's operational goals.
Structure:

Current technology:
- Paper-based patient records
- Legacy systems for inventory tracking
- Lack of real-time communication tools

Proposed technology:
- Implement an EMR system
- Introduce automated patient registration kiosks
- Implement real-time messaging systems for communication

Justification for changes:

Improved patient care
Reduced administrative workload
Enhanced inter-departmental communication

7. Change Management Plan [optional]

Description: A detailed plan to manage the transition from the old systems to the new ones. This includes training, communication, and support plans.
Structure:

- Training sessions:
  - Session 1: How to use the EMR system.
  - Session 2: Implementing automated patient registration.
  - Session 3: Real-time communication system training for staff.
- Communication strategy:
  - Regular updates via email and meetings to keep all stakeholders informed.
  - Assign department champions to support the change.
- Support plan:
  - Post-implementation help desk for the first three months.
  - Weekly feedback sessions to assess any challenges during transition.

8. Solution Evaluation Metrics [optional]

Description: A dashboard created in Excel to track performance metrics against the hospital's business objectives.
Structure:

Metric	Baseline	Target	Current Performance
Patient wait time reduction	30 mins	20 mins	25 mins
Real-time communication response	1 hour	15 mins	20 mins
Inventory tracking efficiency	70% accurate	95% accurate	90% accurate