Eduindia_A Child Birth Education Track Web Portal

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Abstract: **This project is aimed at developing a Web Portal to reduce the count of illiteracy. The Portal can be accessed by Municipal Corporation (MNC), Hospitals, Schools and all NGO's working for finding the children who are not taking Primary education. For all the stakeholder's proper login is provided. For finding Non admitted children Municipal Corporation would consider the records from Birth certification Module for particular year and after 5 years Municipal Corporation would consider the records from School and compares both of these records and filter them according to area and send it to respective school and NGO's and school/NGO's informs the parents of those students who are not admitted.**

Keywords: **NGO (Nongovernmental Organization), MNC (Municipal Corporation), BCM (Birth Certification Module), Etc.**

I. INTRODUCTION

In the current digital landscape, educational web platforms have revolutionized the way information is accessed and disseminated, opening up new avenues for enhancing early childhood education and parental support. Although there is a growing recognition of the vital importance of early childhood development for lifelong learning and health, dependable and accessible resources for parents are still scarce, particularly in underprivileged areas. The Edu-India: A Child Birth Education Track Web Portal seeks to fill this gap by offering parents and caregivers a comprehensive, culturally sensitive, and user-friendly resource tailored to assist in a child's development from birth. This platform will provide research-based information on crucial subjects such as prenatal care, infant health, developmental milestones, early learning strategies, and health and safety guidelines, ensuring that parents receive timely and practical advice to help them make informed decisions throughout their child's growth stages.

The mission of Edu-India transcends mere content delivery; it aims to offer an engaging and inclusive experience tailored specifically for Indian parents and caregivers. Built with user-friendly HTML and CSS, the platform prioritizes accessibility and versatility across a range of devices, making it beneficial for both techsavvy individuals and beginners. By incorporating milestone tracking features, expert advice sections, and community discussion forums, Edu-India cultivates a supportive environment for learning and informed parenting. Ultimately, Edu-India seeks to empower families with easily accessible resources, align with broader public health initiatives for early childhood, and address educational disparities by ensuring that all parents have access to dependable information that supports their child's growth and overall well-being.

II. OBJECTIVE OF PROJECT

The "Child Education System" project aims to reduce illiteracy by creating a web portal that tracks and promotes primary school enrollment for children. Integrating data from hospitals, schools, NGOs, and municipal corporations, it identifies unadmitted children, informing stakeholders and parents to encourage timely school admissions and raise educational awareness.

III. PROBLEM STATEMENT

- Taking into consideration the problem of illiteracy, we need to make sure that each person should at least get the basic level of education.
- For this purpose, we propose the idea of "designing as often are that would efficiently solve this problem by taking into consideration the birth time of every child."
- The Government has provided multiple systems that maintain school, hospital, NGO data separately

NEED OF THE Edu-India A Child Birth Education Track Web Portal

1. Need of Available, Solid Data on Childbirth and Early Child rearing Numerous anticipating guardians, particularly in rustic and underserved regions, may need get to dependable, evidence-based data approximately childbirth, pre-birth care, and early child rearing.

Existing assets may be obsolete, blocked off, or troublesome to get it, driving to deception or expanded uneasiness among modern guardians.

2. Holes in Parental Instruction and Mindfulness Whereas there are various online assets, few offer a organized, track- based instruction framework particularly planned to direct guardians from pregnancy through early child improvement.

3. Expanding Intrigued in Computerized Wellbeing Arrangements

With the developing appropriation of computerized wellbeing and e-learning stages, more guardians are turning to online assets for instruction.

A web entry particularly centered on child birth instruction, supported by legitimate restorative data, can reach a more extensive group of onlookers and be gotten to anytime, anyplace, making it a helpful instrument for present day child rearing.

4. Back for Maternal and Child Wellbeing Objectives

Edu-India can contribute to broader open wellbeing targets, such as lessening maternal and newborn child mortality by enabling guardians with fundamental information and back.

Teaching guardians on themes like pre-birth wellbeing, breastfeeding, and secure rest hones can advance more advantageous results for both mother and child.

5. Customized Learning for Changed Instructive Foundations

Edu-India can be outlined to cater to assorted instructive foundations, advertising dialect choices and rearranged clarifications. This inclusivity is fundamental for coming to a wide range of guardians, from diverse financial and instructive foundations, guaranteeing that data is open to all.

6. Empowering Educated Decision-Making and Readiness

Guardians prepared with precise data are way better arranged to form educated choices with respect to birth plans, healthcare suppliers, and postpartum care. This readiness not as it were benefits families but moreover decreases stretch on healthcare frameworks by minimizing complications emerging from a need of mindfulness.

7. The Edu-India A Child Birth Instruction Track Web Section focuses to supply

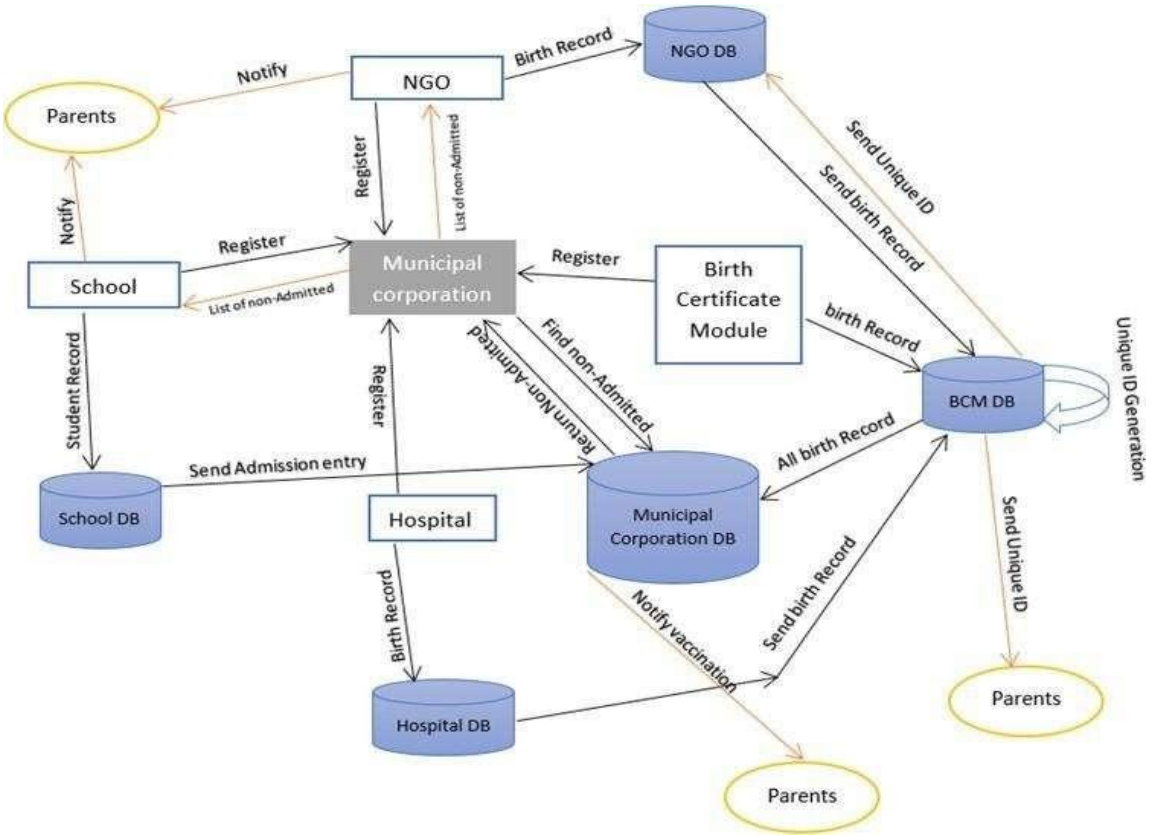
Comprehensive resources and support for foreseeing gatekeepers. This organize can serve as a central center for information, classes, and community engagement related to childbirth instruction.

IV. METHODOLOGY

This picture outlines a complex information stream and interaction demonstrate among different substances included in birth record enrollment, issuance of birth certificates, and following of non-admitted children for potential school confirmations. Each component within the chart speaks to an organization or database collaboration to guarantee that each childâ€™s birth record is precisely enlisted, a special recognizable proof number is issued, and upgrades approximately the childâ€™s status are communicated to significant parties.

Main Entities and Their Interactions:

1. Parents:
   - Parents are at the center of the system as they are notified about their child's records and receive information such as the unique ID generated by the system.
   - Parents are notified about various updates from the municipal corporation and may receive important information regarding their child's birth certificate and vaccination schedules.
2. School:
   - Schools are responsible for registering admitted students and sending student records to the School Database (School DB).
   - The school also communicates with the Municipal Corporation to register students and provides a list of non-admitted children, which is a list of children who are not yet in school but need monitoring.



3. Non-Governmental Organization (NGO):

- NGOs are involved in monitoring children who may not have access to formal education or whose admission status needs tracking.
- NGOs receive notifications and lists of non-admitted children from the Municipal Corporation, which helps them in outreach and ensuring that children in need receive support.
- NGOs also store information in the NGO Database (NGO DB) and provide birth records back to the Municipal Corporation for centralized tracking.

4. Municipal Corporation:

- This is the central entity that manages interactions and data exchange between different organizations.
- The Municipal Corporation registers birth records, monitors non-admitted children, and sends vaccination notifications to parents.
- It also manages admission entries from schools, updates the list of non-admitted children based on school data, and shares this information with NGOs for follow-up actions.
- The Municipal Corporation Database (Municipal Corporation DB) stores all records related to registered children, including birth records from hospitals and updates from the Birth Certificate Module.

5. Hospital: o Hospitals register birth records and send them to the Hospital Database (Hospital DB), which in turn shares these records with the Municipal Corporation DB.

o This data is crucial for initial birth registration and verification, which is subsequently used in the Birth Certificate Module.

6. Birth Certificate Module (BCM):

- This module is responsible for generating birth certificates for registered children based on birth records obtained from hospitals.
- The BCM Database (BCM DB) stores all birth records and generates a unique ID for each child, which is then sent to the parents.
- The BCM DB coordinates with the Municipal Corporation DB and sends birth record data back to ensure records are up-to-date across systems.

7. Data Flow and Communication:

 Birth Record Creation and Unique ID Generation:

- When a child is born, the hospital records the birth information in the Hospital DB. This data is then sent to the Municipal Corporation DB.
- The Birth Certificate Module retrieves birth records from the Municipal Corporation and BCM DB to issue a unique ID and generate the birth certificate for each child.

- This unique ID and birth record are then communicated back to parents, completing the initial registration process.

 Tracking Non-Admitted Children:

- The Municipal Corporation uses school and NGO records to identify children who have not yet been admitted to school.
- Schools send admission entries and lists of non-admitted children to the Municipal Corporation. NGOs receive similar lists to perform outreach and ensure that these children are not left out of educational opportunities.

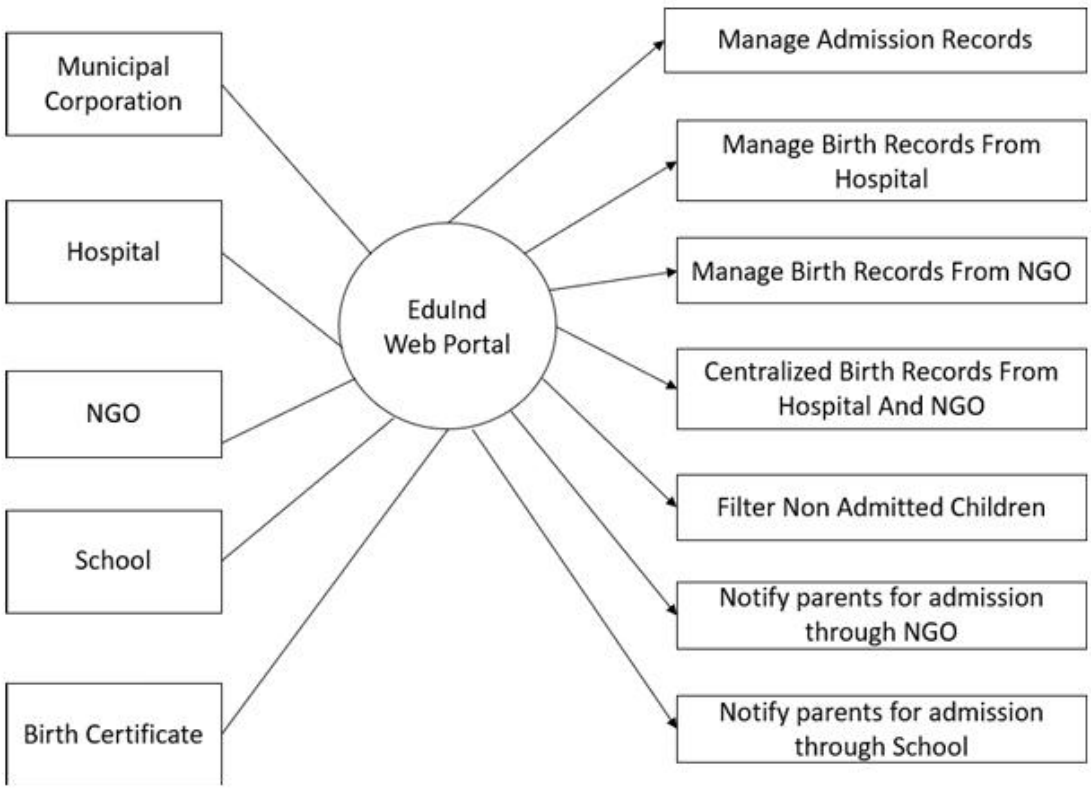
 Vaccination Notification: o The Municipal Corporation DB has a role in notifying parents about vaccinations. This ensures that registered children receive timely vaccinations based on their birth records.

This flowchart shows an integrated data management system where multiple organizations work together to track, update, and manage each child's records from birth through early education. The system ensures that all relevant data is centralized in the Municipal Corporation DB, allowing for efficient tracking, communication, and record management for children across the network. This model also highlights how NGOs and schools contribute to the education tracking process, assisting the government in monitoring and supporting non-admitted children and improving educational outreach.

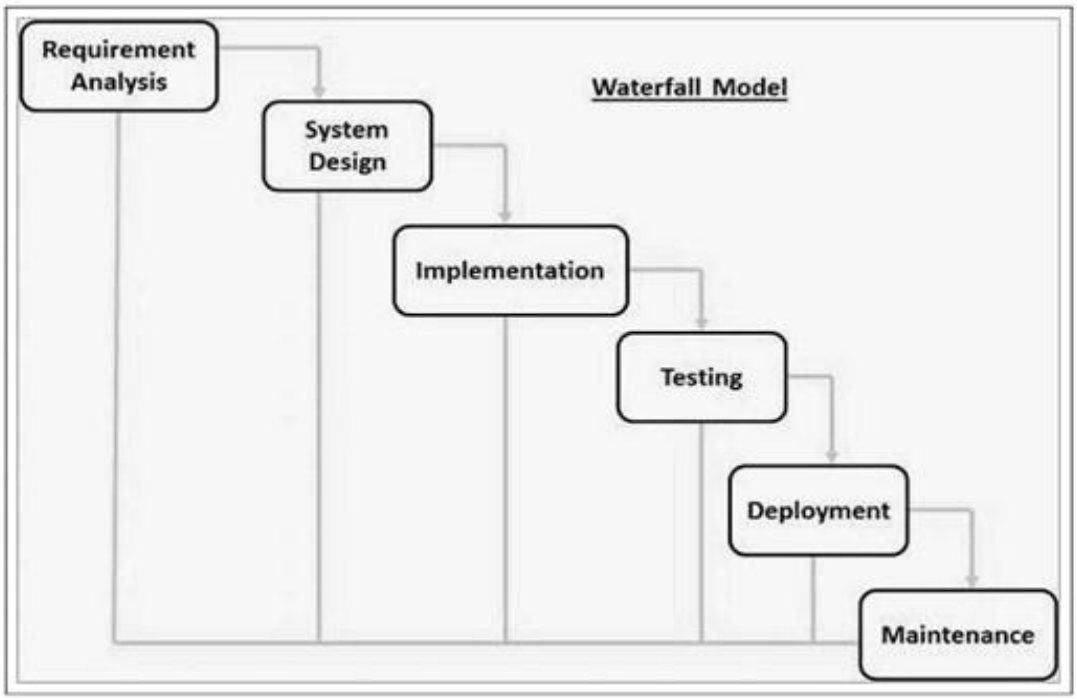
1. Data Flow

A data flow diagram (DFD) maps out the flow of information for any process or system. It uses defined symbols like rectangles, circles and arrows, plus short text labels, to show data inputs, outputs, storage points and the routes between each destination. Data flowcharts can range from simple, even hand-drawn process overviews, to in-depth, multi-level DFDs that dig progressively deeper into how the data is handled. They can be used to analyze an existing system or model a new one.

DFD Level 1 provides a more detailed breakout of pieces of the Context Level Diagram. You will highlight the main functions carried out by the system, as you break down the high-level process of the Context Diagram into its subprocesses. the context diagram is decomposed into multiple bubbles/processes. In this level, we breakdown the high-level process of 0 level DFD into subprocesses. level 1 DFD contains data stores that are used by the main process.



2. Waterfall Model



1. Requirement Analysis

- Objective: Gather and document the detailed requirements for each module (Municipal Corporation, Hospital, School, NGO, and Birth Certification Module).
- Activities:
  - Identify key requirements from stakeholders, including Municipal Corporations, hospitals, schools, and NGOs.
  - Document functionality for tracking birth records, admissions, and non-admitted children.
  - Define notification requirements for parents and stakeholders regarding children's admission and vaccination schedules.
- Deliverable: A complete requirements document outlining functional and nonfunctional specifications.

2. System Design

- Objective: Plan and create an architecture for the web portal based on the gathered requirements.
- Activities:
  - Design the architecture of the portal, detailing module interactions (e.g., Birth Certification Module interacts with Hospital and NGO records).
  - Create data flow diagrams (DFDs) for levels 0, 1, and 2 to visualize data movement and module functions.
  - Define the database structure for storing birth records, admission data, and notifications.
  - Plan user interfaces (UI) for each stakeholder: Municipal Corporation, Hospital, School, and NGO
- Deliverable: Detailed design document, DFDs, and UI mockups.

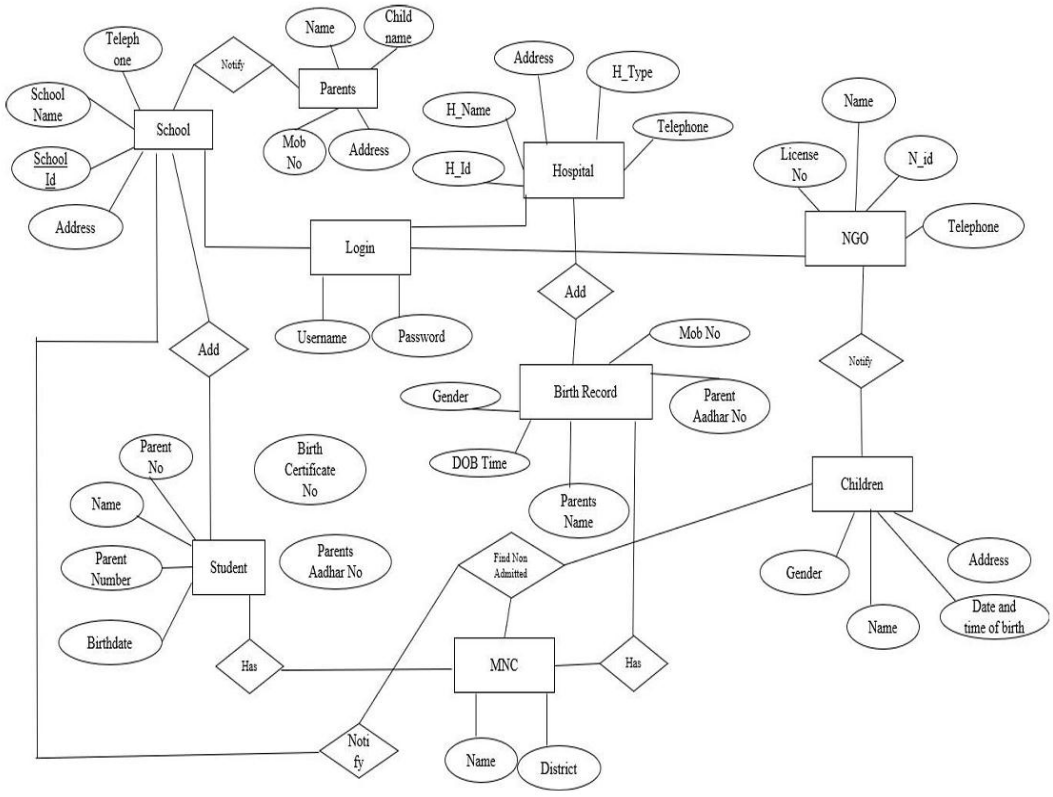
3. Implementation

- Objective: Develop the portal based on the design specifications.
- Activities:
  - Code Individual models:
- Hospital Module: Enables hospitals to record births daily and sync with the Birth Certification Module.
- NGO Module: Manages birth records outside hospitals and tracks non-admitted children.
- Birth Certification Module (BCM): Aggregates data from hospitals and NGOs, assigns unique IDs, and provides search functionality.
- School Module: Allows schools to register admissions, view non-admitted students, and notify parents.
- Municipal Corporation Module (Admin): Monitors birth and school records, filters non-admitted children by area, and sends notifications.

- Integrate these modules within a single portal and connect database components.
- Deliverable: Working codebase for each module integrated into the portal

4. Testing
- Objective: Validate the functionality, performance, and security of the web portal.
- Activities:
  - Perform Unit Testing on each module to ensure individual components function correctly.
  - Conduct Integration Testing to verify seamless interaction between modules (e.g., data flow from Hospitals/NGOs to BCM)
  - Execute System Testing to ensure end-to-end functionality meets requirements.
  - User Acceptance Testing (UAT) by stakeholders, such as Municipal Corporation officials and NGO representatives, to verify usability.
- Deliverable: Test reports confirming the portal meets all specified requirements.

5. Deployment
- Objective: Launch the portal for live use by Municipal Corporations, hospitals, schools, and NGOs.
- Activities:
  - Set up the portal on a server accessible to all stakeholders.
  - Train stakeholders on portal usage, including accessing and updating records, sending notifications, and using the BCM.
- Deliverable: Fully deployed portal accessible to all users.



6. Maintenance
- Objective: Provide ongoing support and make necessary updates post deployment.
- Activities:
  - Monitor portal usage to ensure continuous availability and functionality.
  - Fix any issues that arise, such as bugs or security vulnerabilities.
  - Update the portal as needed to add new features or optimize existing ones (e.g., improved notification systems or new reporting features).
- Deliverable: Updated versions of the portal, including patches and enhancements.

Entity Relationship Diagram

An Entity Relationship (ER) Diagram is a type of flowchart that illustrates how “entities” such as people, objects or concepts relate to each other within a system. ER Diagrams are most often used to design

or debug relational databases in the fields of software engineering, business information systems, education and research. Also known as ERDs or ER Models, they use a defined set of symbols such as rectangles, diamonds, ovals and connecting lines to depict the interconnectedness of entities, relationships and their attributes. They mirror grammatical structure, with entities as nouns and relationships as verbs.

V. CONCLUSION

The Edu-India Child Birth Education Track Web Portal has been established with the goal of addressing significant educational and health issues in India, especially in underserved areas where early childhood education and parental resources are scarce. Through this all-encompassing platform, we strive to decrease illiteracy by monitoring and promoting primary school enrollment for children. By enabling efficient data integration and collaboration among hospitals, schools, NGOs, and Municipal Corporations, the portal establishes a strong system that identifies children who have not yet been admitted, thereby assisting stakeholders in advocating for timely school enrollments.

Furthermore, Edu-India's intuitive layout, organized learning materials, and features for tracking milestones assist parents and caregivers during early developmental stages, equipping them with essential, research supported insights and direction. The platform not only acts as a means to enhance educational knowledge but also aligns with wider public health goals by providing accessible resources that support maternal and child health.

In the end, the Edu-India platform serves not only as a collection of resources but also as a driving force for social change that helps close educational gaps, encourages knowledgeable parenting, and enhances the critical early years of a child's education and health

VI. ACKNOWLEDGEMENT

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