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HAVEN

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بسم الله الرحمن الرحيم. {وَكَانَ فَضْلُ اللَّهِ عَلَيْكَ عَظِيمًا}.

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في هذه اللحظات، نهدي تخرجنا هذا إلى من علمونا أبجديات الحروف وفكوا لنا شبكات الأرقام وأسرار البيانات. نهديه إلى معلمينا الأفاضل، كل باسمه ولقبه، إلى من كشفوا لنا أسرار العقل ودقائق التحليل، وإلى أولئك الذين آمنوا بقدراتنا بينما فقدنا الإيمان بذواتنا.

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ABSTRACT

The Haven project helps parents in early parenting, from pregnancy to a child's first three years. It focuses on essential stages.

Haven provides tools for mothers, to manage their health and their child's health. It tracks fetal growth, vaccinations, nutrition, and doctor visits.

The platform highlights complications and medical conditions. It also shares real-life stories of parents facing similar challenges.

Awareness videos will educate mothers, about child development. Short Reels will share information in a fun and simple way.

The project focuses on educating fathers about their role. Experts and trusted sources guide this content.

Haven uses AI to help parents understand their child's crying. It recognizes the baby's voice and provides insights.

Finally, The Haven project simplifies parenting. It helps parents save time, meet their child's needs, and provide a better life.

With Haven you will not be alone

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Chapter 1: Introduction

1.1 Overview

The experience of pregnancy and childbirth is one of the most challenging stages for parents, especially with their first child. Mothers need a supportive refuge to guide and assist them.

Haven will offer a comprehensive platform, with all the services mothers need at every stage: pregnancy, childbirth, the first year of the child's life, and the ages of two to three years. This program will be supported by experienced and specialized doctors, both obstetricians and gynecologists and pediatricians.

During pregnancy, parents will be kept informed of their fetus's growth and movements, and will use video recordings, the ability to book doctor appointments, and advice from trusted experts.

During childbirth, Haven helps relieve stress by guiding mothers on what to do, how to act, the best options for themselves and their baby, how to prepare for this stage, and how to make the necessary preparations.

In the postpartum period to the child's first year, when the child changes rapidly, we will enable parents to understand their baby's cries and needs with the help of artificial intelligence, while providing appropriate solutions to save time and effort. This will include breastfeeding advice and solutions to challenges such as teething and walking.

In the final stage of the project, covering the child's second to third year, we will provide the best solutions for weaning, address weaning problems, and offer support for other challenges the child faces. With Haven, parents won't need to overthink.



No more stress or guesswork—we handle the details so you can focus on what matters. Haven offers expert, stage-specific guidance, reliable resources, and fresh solutions—even for experienced parents. We also empower fathers to support mothers emotionally and mentally throughout the journey. With Haven, you're never alone.

Haven is Peace of Mind for Every Step.

1.2 Problem Statement

Motherhood, particularly for first-time mothers, presents a multifaceted set of challenges that encompass everything from the practicalities of newborn care to the vital task of safeguarding one's mental and physical health.

Key obstacles commonly encountered include a **lack of reliable information and resources**, leaving new mothers to navigate a vast, often fragmented, and unreliable online landscape for guidance on infant health, nutrition, sleep, and development.

This issue is compounded by the prevalence of **conflicting advice online**, which can be overwhelming and often culturally irrelevant, making it difficult for mothers to apply practices consistent with their values. Many new mothers also experience profound **feelings of isolation and a lack of community support**, contributing to negative impacts on their mental well-being, increased stress, and diminished confidence.

Furthermore, difficulties arise in **tracking health appointments and managing schedules**, as the demands of nursing, doctor visits, and daily routines can lead to disorganization and missed care.

The cumulative stress often results in **negative impacts on maternal mental health**, manifesting as anxiety and postpartum depression, which can severely hinder a mother's overall health and her ability to optimally care for her baby.



Adding to this, there's frequently a **lack of awareness among fathers about their roles in supporting the mother and child**, which can leave mothers feeling unsupported and unable to articulate their needs.

Finally, a common source of frustration and anxiety for new mothers is the inability to **understand why their baby is crying, especially in the first weeks**, further exacerbating feelings of helplessness and self-doubt.

Haven Solve the Problem.

1.3 Proposed Solution

So, we decided to address these challenges, developing Haven as a comprehensive online platform designed to meet the needs of all mothers, whether they are just starting out or experienced.

With Haven, you'll notice the difference, as every detail is designed to ensure parental convenience. The platform features an easy-to-use interface and powerful search tools.

Furthermore, Haven supports continuous development through specialized content, community engagement, and institutional resources. Regular updates keep parents informed of the latest developments in the field of motherhood, empowering them to navigate their parenting journey with confidence.

For both mothers and fathers, the right content will be curated for you at every stage, enabling you to understand why your baby is crying.

Stay close to see the details



1.4 Services

Haven is an all-in-one platform offering essential support for parents through pregnancy, childbirth, and early childhood. It provides health guidance, psychological support, and practical information for both mothers and fathers. Key services include:

1. User-friendly and responsive design

Haven features an easy-to-use, responsive interface, allowing parents to access the platform from any device, anytime. The intuitive design ensures even busy or sleep-deprived parents can easily find the resources they need.

2. Stage-Based Tracking and Guidance

The platform is divided into four stages, helping mothers track their experiences and their child's milestones.

Each stage provides tailored information, support, and tips, while also highlighting the father's role with practical guidance for active involvement in caregiving.

3. Educational and Supportive Video Content

Each stage includes specialized videos that provide an in-depth understanding of developmental changes and self-care strategies. Videos are curated to support parents in anticipating and managing each phase with confidence.

4. Content tailored to Fathers

In keeping with our country's culture, it includes content that concerns parents and how to support mothers at every stage.

5. Support for fathers and mothers

The project includes content aimed at fathers to strengthen their role in supporting the mother emotionally and psychologically during pregnancy and childbirth, boosting her sense of security and confidence.



6. Supply Guide

Provides checklists of essential supplies and tools for each stage, such as birth supplies, baby supplies, and postpartum equipment.

7. Using artificial intelligence

Understanding the cause of a baby's crying with the help of artificial intelligence.

The goal of these services is to make pregnancy and childbirth easier and safer by providing comprehensive and reliable support from specialized sources, enabling mothers to make informed and political decisions.

Haven will provide the best services

1.5 Objectives

The primary objectives of this initiative, "HAVEN," are to empower and support mothers, particularly first-time mothers in Palestine, by addressing critical challenges in maternal and infant care. These objectives include:

1. To establish a centralized, reliable, and culturally relevant digital platform:

Provide easily accessible and trustworthy information on infant health, nutrition, sleep routines, growth monitoring, and maternal well-being, specifically tailored to the cultural context of Palestinian families. This aims to counter the challenges of scattered and conflicting online information.

2. To foster a supportive and engaging community network:

Create a safe, moderated online space where new mothers can connect, share experiences, seek guidance, and offer mutual reassurance, thereby alleviating feelings of isolation and building a strong social support system.

**3. To facilitate access to ongoing expert guidance and personalized support:**

Implement mechanisms (e.g., virtual Q&A sessions, moderated forums, or direct messaging with healthcare professionals) that allow mothers to receive timely, affordable, and professional advice on childcare, health management, and personal well-being, reducing uncertainty and shyness about seeking help.

4. To provide intuitive tools for health tracking and schedule management:

Develop features that enable mothers to effortlessly monitor nursing schedules, track baby's health metrics, manage doctor appointments, and organize daily routines, thereby minimizing stress and disorganization.

5. To promote maternal mental health and self-care practices: Offer dedicated resources, guidance, and community discussions focused on managing stress, preventing postpartum depression and anxiety, and encouraging essential self-care routines for mothers, recognizing the critical link between maternal well-being and effective childcare.**6. To educate and involve fathers in the maternal and infant care journey:**

Provide clear, accessible resources and guidance for fathers on their crucial role in supporting both the mother and child at every developmental stage, fostering understanding and strengthening familial support within the unique societal context.

7. To equip mothers with skills for understanding and responding to infant cues: Offer practical guidance and educational content on interpreting common infant behaviors, particularly crying, to enhance mothers' confidence and reduce anxiety in the initial weeks and months of their child's life.

Expand the platform's offerings to address parenting challenges and needs beyond the early years, providing a sustainable resource that grows with families.

Haven Will Empower Parents to Cultivate a Positive Family Environment



1.6 Stockholders

One of the most important points that distinguishes our project is the beneficiaries of the project. It is not limited to a specific individual. The family is the foundation of society and the mother is the nucleus of the family. The progress of any society depends on the mother. The most important categories that benefit from the project are:

- The Haven system has:

internal stakeholders like developers, system admins, and project managers who build and maintain the platform.

External stakeholders include mothers, fathers, doctors, and regulatory bodies who use or are impacted by the system.

Operational stakeholders—such as parents and doctors—interact with the system daily for tracking health and consultations.

Executive stakeholders, like project sponsors and healthcare leaders, make strategic decisions and provide funding. Children are indirect stakeholders, benefiting from the system's outcomes without directly interacting with it.

Table 1 Stockholders

Stakeholders Type	Examples
Internal	Developers, PM, Sys Admin, DBA
External	Mothers, Fathers, Doctors, Child, Regulatory Bodies
Operational	Mothers, Fathers, Doctors, Admin Staff
Executive	Sponsors, Healthcare Directors, System Owner



Chapter 2: Related Work

2.1 Foreign Related Work

One of the most prominent sites that adopt the same idea or something similar to it talks about mothers and newborns

1- BabyCenter

This site provides information about pregnancy, childbirth, childrearing, and child-rearing tips. There are also community forums where mothers can communicate. Here are some of the advantages and disadvantages of this site

- Comprehensive information BabyCenter provides a wide range of resources covering pregnancy, childbirth, and childrearing, including health tips, developmental milestones, and practical tips, but let's not forget that the presence of this amount of information without proper arrangement and explanation may make it difficult for some users to sift through and determine the most relevant advice for their specific condition and the stage they are going through, which we will be keen to provide on our site.
- Sometimes misleading user interface: Some users may find it difficult to access the desired information according to the condition they are going through, which causes the cases to not be classified correctly. Users may find it difficult to access the required information, which is one of the most important features that we will support on our site. Marketing The site is characterized by advertisements and promotional content, which may sometimes seem overwhelming or intrusive, leading to concerns about bias, as we will be keen to Be careful and select ads before displaying them on the site that will be appropriate for our country and the culture of our society.
- Regional focus While BabyCenter provides information relevant to a broad audience, some content may be more appropriate for a US audience, which may not always apply to parents in our Arab countries, which is why you will be careful to select the information correctly with the consultation of experts and specialists and appropriate for our society.

RELATED WORK

CHAPTER 2

HAVEN



Table 2 The difference between BabyCenter and Haven

Difference	BabyCenter	Haven
The content	Covers comprehensive information on pregnancy, childbirth, and child development through articles, videos, and interactive tools.	Covers aspects of motherhood, nutrition, growth and mental health care specialized for mothers with a focus on psychological support for the mother and helps to relieve the psychological burdens of the new mother.
The scope of services	Provides personalized content based on pregnancy stage or child's age, with tools like Due Date Calculator and Baby Name Finder.	It provides a comprehensive system for child care and health monitoring from pregnancy to the age of 4 years.
Maternity Support	Provides general pregnancy and motherhood advice tailored to each stage of pregnancy and parenting.	Provides personalized and personalized support for mothers, including reminders for health appointments such as vaccinations.
Information source	Relies on trusted medical sources, with content overseen by medical advisors for accuracy.	It relies mainly on reliable real-life sources such as doctors, nurses and midwives.
Appointment Reminder	Offers automatic reminders for important appointments like vaccinations and doctor visits via website or app.	Provides automatic reminders to mothers about immunizations, doctor visits, and other essential appointments, either by mail or website.
Stages of development	Organizes content based on pregnancy and child development stages, providing detailed guidance.	It divides the information into pregnancy, birth, the first year, and early childhood years, to provide detailed information by stage.
Supporting parents	Offers general tips for both parents but does not emphasize emotional support specifically for the mother.	Includes specific advice about the role of fathers in emotional and psychological support for the mother at all stages of the child's development.
AI support	No AI support features.	Supports by identifying the child's voice needs from his voice



2- Motherly

This site provides advice for mothers who are about to become mothers. It advises mothers to take care of themselves, ask for help from others, trust themselves, their bodies, and their ability to become mothers, and start planning their future as a mother.

And not to compare themselves to other mothers, not to compare their child to other children, talk about everything that bothers them, not to remain silent about any annoyances or fatigue, and start planning for their son's future and search for sites and applications that help them and make things easier for them. There are ways to help them manage expenses and give them financial advice to manage their lives with their child. The difference between the first site and our project:

The site mostly provides psychological support to the mother and provides financial support to manage life, while our project has more and better features as it provides assistance to the mother to take care of her child more and take care of all the child's needs from pregnancy to the age of four years.

Our site explains how parents can deal with their child better and contains more useful aspects, including helping the mother take care of her child in the first months of his life by knowing what the child wants from the sound of his crying and providing assistance to the mother and father to remind them of vaccination dates and doctor's appointments, which this site does not provide.

Our site is also with the mother in all stages of the child, while this site provides support during pregnancy only. Our site also provides financial support to parents more than this site, as the site only provides advice, while our site provides services for communicating with the doctor and booking appointments in an easier and more economical way.

RELATED WORK

CHAPTER 2

HAVEN



Table 3 The difference between Motherly and Haven

Difference	Motherly	Haven
The content	Offers a broad range of content on pregnancy, birth, postpartum, parenting, and wellness through articles, classes, and expert advice.	Covers aspects of motherhood, nutrition, growth and mental health care specialized for mothers with a focus on psychological support for the mother and helps to relieve the psychological burdens of the new mother.
The scope of services	Provides online courses, articles, and a supportive community for parents, covering pregnancy to early childhood.	It provides a comprehensive system for child care and health monitoring from pregnancy to the age of 4 years.
Maternity Support	Focuses on in-depth classes for pregnancy, birth, and postpartum, including meditation, physical recovery exercises, and mental health resources.	Provides personalized and personalized support for mothers, including reminders for health appointments such as vaccinations.
Information source	Relies on expert-written articles, courses, and user community discussions for support and information.	It relies mainly on reliable real-life sources such as doctors, nurses and midwives.
Appointment Reminder	Does not emphasize automatic reminders but offers comprehensive guides and educational content for health management.	Provides automatic reminders to mothers about immunizations, doctor visits, and other essential appointments, either by mail or website.
Stages of development	Covers pregnancy, birth, postpartum, and early childhood with detailed information specific to each phase.	It divides the information into pregnancy, birth, the first year, and early childhood years, to provide detailed information by stage.
Supporting parents	Includes tips for both mothers and fathers but may not emphasize emotional support.	Includes specific advice about the role of fathers in emotional and psychological support for the mother at all stages of the child's development.
AI support	Does not provide AI-based support features.	Supports by identifying the child's voice needs from his voice



2.2 Arabic Related Work

1- Supermama website

The site offers a comprehensive set of information and advice for new and pregnant mothers, covering many aspects related to motherhood. Below is an overview and some of the advantages and disadvantages of this site:

Supermama covers a wide range of topics, including pregnancy, parenting, health, relationships, and lifestyle, providing users with diverse and useful information. However, despite its usefulness, some of the content may be generalized, as each family and child have unique needs that may not be fully addressed in the articles.

Focus on the Arabic-speaking audience: It provides resources specifically designed for the cultural context of the Middle East and North Africa, making it accessible to Arabic-speaking users, but does not support the English language, which we will provide.

Ads and sponsored content: Like many content sites, the site includes ads, which may reduce the user experience and sometimes make navigation less smooth, which we will adjust by selecting the ads that will be added.

Overall, the Supermama app is a good resource, but it could be improved by adding more interactive and personalized features and reducing the clutter of ads.

RELATED WORK

CHAPTER 2

HAVEN



Table 4 The difference between Supermama and Haven

Difference	Supermama	Haven
The content	covers general aspects of motherhood, nutrition, growth, and mental health care.	Covers aspects of motherhood, nutrition, growth and mental health care specialized for mothers with a focus on psychological support for the mother and helps to relieve the psychological burdens of the new mother.
The scope of services	provides articles and advice on nutrition, health care, and motherhood in general.	It provides a comprehensive system for child care and health monitoring from pregnancy to the age of 4 years.
Maternity Support	Provides general advice and guidance for motherhood, including information about pregnancy, childbirth, and parenting.	Provides personalized and personalized support for mothers, including reminders for health appointments such as vaccinations.
Information source	mainly relies on articles and written information sources.	It relies mainly on reliable real-life sources such as doctors, nurses and midwives.
Appointment Reminder	relies on sharing general health care information.	Provides automatic reminders to mothers about immunizations, doctor visits, and other essential appointments, either by mail or website.
Stages of development	Covers multiple stages, but does not provide detailed information for each stage.	It divides the information into pregnancy, birth, the first year, and early childhood years, to provide detailed information by stage.
Supporting parents	does not usually include detailed information about the role of fathers in emotional and psychological support for the mother.	Includes specific advice about the role of fathers in emotional and psychological support for the mother at all stages of the child's development.
AI support	does not support	Supports by identifying the child's voice needs from his voice



2- Omooma website

Motherhood is a dedicated platform that aims to support new mothers and pregnant women, especially in the Arab world. Here are its pros and cons:

Content geared towards Arab mothers: Motherhood provides culturally appropriate content specifically designed for Arabic-speaking mothers, making it relatable and accessible to its core audience.

But limited medical interaction: While it provides general advice and content, it lacks direct consultation features with healthcare providers, which can limit real-time assistance.

The platform covers some stages of motherhood—from pregnancy to raising young children—and offers advice on health, nutrition, child development, and self-care.

But requires a subscription: Some of the site's features and premium content may be behind a paywall, making it inaccessible to users who prefer free resources.

Expert articles and resources: The site includes articles, guides, and videos that have been created, but while helpful, the content can sometimes be generalized and may not meet the unique needs of each mother or child.

RELATED WORK

CHAPTER 2

HAVEN



Table 5 The difference between Omooma and Haven

Difference	Omooma	Haven
The content	Covers various aspects of motherhood, nutrition, health, and child care for Arab-speaking mothers.	Covers aspects of motherhood, nutrition, growth and mental health care specialized for mothers with a focus on psychological support for the mother and helps to relieve the psychological burdens of the new mother.
The scope of services	Provides articles, videos, and advice on parenting, health care, and maternal health.	It provides a comprehensive system for child care and health monitoring from pregnancy to the age of 4 years.
Maternity Support	Offers general advice on motherhood, including pregnancy, childbirth, and parenting tips.	Provides personalized and personalized support for mothers, including reminders for health appointments such as vaccinations.
Information source	Mainly relies on articles, interviews, and expert opinions.	It relies mainly on reliable real-life sources such as doctors, nurses and midwives.
Appointment Reminder	Shares general health care information and suggests appointments.	Provides automatic reminders to mothers about immunizations, doctor visits, and other essential appointments, either by mail or website.
Stages of development	Covers various stages of a child's development, focusing on general advice for each stage.	It divides the information into pregnancy, birth, the first year, and early childhood years, to provide detailed information by stage.
Supporting parents	Includes tips for both mothers and fathers but may not emphasize emotional support.	Includes specific advice about the role of fathers in emotional and psychological support for the mother at all stages of the child's development.
AI support	Does not support AI features.	Supports by identifying the child's voice needs from his voice

We will notice in all the previous sites that they do not support artificial intelligence as we will show on our site, and the mother does not feel that there is someone with her in the experience unlike our site where she will feel that she is not taking the path alone with the presence of sources and guidance for her at every stage and support for the idea of establishing a Muslim family that follows the teachings of Islam, and the sites do not provide support for the father and his role unlike our site, and do not support the variable user interface feature, and we will work to shed light on the most important and smallest details, whether emotional, material, religious, educational, cultural, or even material administrative.



Chapter 3: System Requirements

3.1 Functional Requirements

The following are the essential functions that the system must perform to support new mothers and assist them through each stage of early motherhood:

1. Administrator Functional Requirements

- Administrator Login/Login: The administrator will be able to securely log in using his/her email and password to access the administration interface.
- Logout: The administrator will be able to log out, ensuring the security of the system and preventing unauthorized access.
- Managing Mothers' Accounts: The system allows the administrator to view registration requests from mothers and approve or reject them based on pre-defined criteria, which is part of content filtering.
- Content Management: Allows the administrator to manage and update static content on the platform, including articles, blogs, and resources on parenting topics.
- Sending Updates and Notifications: The administrator can send notifications and updates to mothers about new topics or important updates within the site.
- Managing Conversations and Community Support: The administrator has the ability to monitor community conversations between mothers and clinics to ensure quality of service and mutual support.
- Manage reminders and schedule appointments: Allows the administrator to add or update vaccination or medical appointment schedules for mothers
- Send Notifications and Updates: The system enables the administrator to send notifications or important updates about new resources or features to mothers.



2. Mothers Functional Requirements

➤ At the account level:

- Create an account: Mothers can create an account by providing their email, password, and basic information to access the platform.
- Log in/out of the account: Mothers can securely log in using their credentials and log out when finished.

➤ At the health and care support level

- Dividing the project into several stages makes it easier for the mother to know and monitor her condition.
- Newborn care guidelines: The system provides access to comprehensive guidelines on newborn care, covering sleep routines, medications, growth stages, and general health.
- Monitoring child growth: Mothers can record and view child growth metrics within the system to monitor general health and growth.
- Scheduling and notifications for medical appointments and vaccinations: The system allows mothers to add, view, and manage medical appointments and vaccination schedules. Automatic reminders are sent via email.
- Receiving reminder notifications: The system automatically sends notifications about health care appointments, medication schedules, and other essential reminders.
- Access to resources and information: Articles and resources will be categorized on different topics, providing basic parenting knowledge and practical tips.
- Delete, update and change password for mothers' accounts: The administrator can manage the accounts of registered mothers by deleting the account, updating information or resetting the password.



3. General Functional Requirements

➤ **User Interface and User Experience:**

- Intuitive Navigation: A user-friendly interface is available across both the app and website, enhancing accessibility and ease of use.
- Aesthetically Designed UI: The platform prioritizes a clear, organized layout to support a positive user experience.

➤ **Security and Privacy :**

- Data Protection: The system enforces strict data protection measures, ensuring the security and confidentiality of mothers' and children's data.

➤ **Developmental Stage Guidance:**

- Content by Child's Developmental Stage: The site divides information and resources into four stages: Pregnancy, Birth, First Year, and Early Years (up to age four). This organization helps mothers access stage-appropriate resources with ease.

➤ **Father's Role and Support:**

Each stage will include guidelines on the father's role, emphasizing emotional and psychological support for the mother.

3.2 Non-Functional Requirements

It is a set of specifications that describe the operating capabilities of the system and the restrictions imposed on it. They are basically the requirements that determine how well it operates, and many of these requirements will be met in our project, the most important of which are:



1- Security and Privacy:

A Multi-Layered Approach

Ensuring robust user security is a paramount priority for our platform, and we have implemented a comprehensive, multi-layered approach to achieve this.

To safeguard sensitive user information, particularly health and personal data, all such information is **stored encrypted within our database**. For passwords, we utilize **Bcrypt**, an industry-leading encryption system, to ensure the highest level of protection.

We have established **secure authentication protocols** to meticulously protect user accounts and prevent any unauthorized access. Our security measures are tiered, with specific controls for different user roles. For instance, the creation of doctor accounts is strictly **restricted to authorized medical professionals** during the registration process, and these accounts can only be managed by **system administrators**.

Furthermore, all data transmission is secured using the **HTTPS transfer protocol**, ensuring encrypted communication between users and our servers. For robust authentication, login, and secure account creation across all user types, we leverage **JSON Web Tokens (JWTs)**.

2- Performance:

Our platform's primary focus is on delivering an exceptional user experience, built upon highly efficient and responsive digital performance. To achieve this, we implemented advanced technologies designed to ensure rapid system responsiveness, high throughput, and minimal loading times, consistently loading pages within seconds.

Our commitment to maintaining smooth and efficient user interactions extends throughout the application. Upon completion of development, we rigorously tested and validated the system's performance using industry-standard tools like Google [pagespeed](#) Insights. Through these efforts, we successfully **increased the website's performance score from 60% to an impressive 97%**, optimizing it for the best possible user experience.



3- Portability:

To ensure parents can seamlessly access Haven anytime, anywhere, our system is meticulously designed for **high portability across diverse environments and devices**. This commitment to portability means users experience a consistent and responsive interface, allowing them to log in and navigate the same intuitive pages on various devices without disruption. Haven is developed with robust **cross-platform flexibility**, ensuring full compatibility across different operating systems and an adaptive responsiveness to various screen sizes and device types. This comprehensive approach guarantees a smooth, efficient, and complication-free experience for parents, irrespective of their chosen device or operating system.

4- Reliability & Accuracy: Ensuring Uninterrupted Support

Haven is meticulously designed to deliver **consistent and highly reliable performance**, guaranteeing parents uninterrupted access to essential resources and guidance throughout their entire parenting journey. Our commitment to reliability is underpinned by **rigorous testing and continuous monitoring**, which ensure system stability and enable the rapid resolution of any potential issues. By utilizing **resilient infrastructure and robust backup systems**, Haven effectively minimizes downtime, ensuring that parents can always depend on the platform for crucial support. This unwavering dedication to reliability is key to building user trust and establishing Haven as a dependable partner in childcare.

5- Usability:

Haven puts an easy-to-use experience first with an intuitive design that meets the needs of parents at every stage. The platform features a clean, organized interface with simple navigation, ensuring users can easily find relevant resources, track milestones, and access support without any hassle. Haven is designed to be accessible to all users, with a responsive design for optimal viewing on any device, and thoughtful user experience features that accommodate busy parent schedules.



6- Scalability:

Haven is designed to accommodate a large number of users, handle massive amounts of data, and efficiently increase the volume of operations. This includes database updates, maintenance, and continuous analytics to monitor performance and identify potential failures, keeping the store's infrastructure modern and able to accommodate future expansion. This includes vaccinations, cities, doctors, and even regular users.

7- Reusability:

Our source code is designed so that it can be reused again, as we can add new functions, add modifications if possible, and carefully manage the processes of creation, packaging, publishing, maintenance, and updates. These considerations ensure that our software is reusable in theory based on its design as well as in practice. Thus, reducing implementation time. In our system

8- Availability:

The Haven system is designed to be available 24/7, providing parents with continuous access to vital resources. The system will be available 24/7, 365 days a year.

9- Capacity:

The system infrastructure able to accommodate a large volume of users and data, while scaling to handle increased demand without compromising performance.

Each of these requirements reinforces Haven's commitment to providing a user-centered, reliable, and adaptable platform that meets the needs of parents through every stage of their journey.

Haven meets all your requirements.

REQUIREMENTS

CHAPTER 3

HAVEN

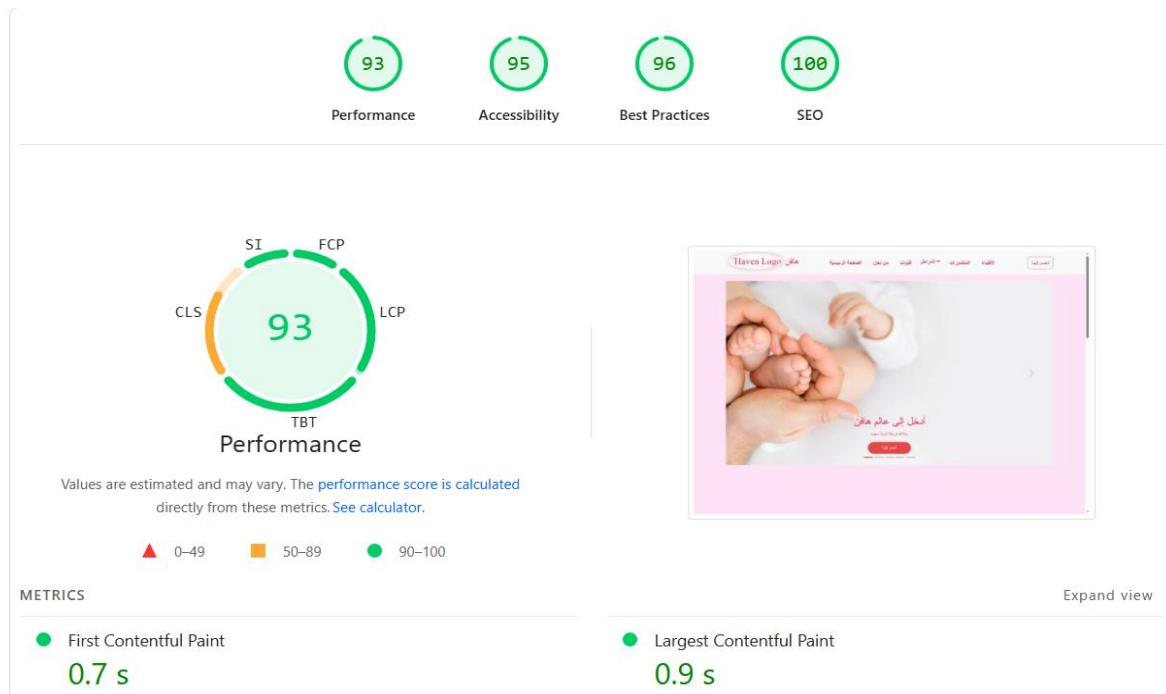


Figure 1 Page Speed For Desktop

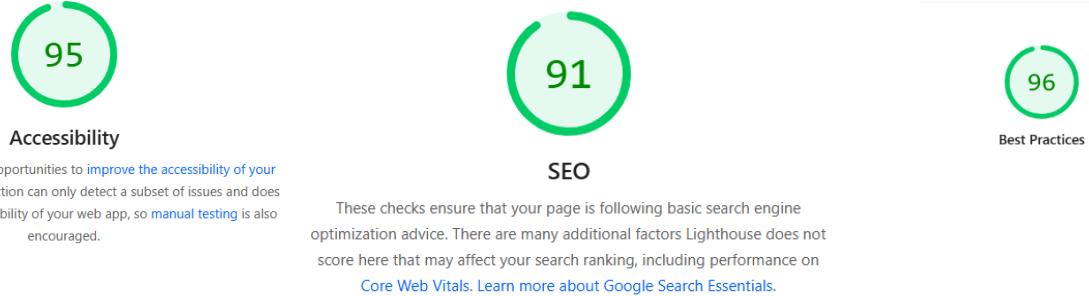


Figure 2 Page Speed

REQUIREMENTS

CHAPTER 3

HAVEN



Report from Jun 10, 2025, 12:10:33 PM

<https://haven-peach.vercel.app/>

Analyze

Mobile Desktop

Discover what your real users are experiencing

No Data

Diagnose performance issues

93
Performance

94
Accessibility

96
Best Practices

100
SEO

93



Figure 3 Page Speed For mobile



Chapter 4: Software Model

4.1 System Description

Description:

Haven is a comprehensive digital platform designed to support mothers and fathers during pregnancy, childbirth, and early childhood. The project provides integrated services aimed at enhancing the quality of life for parents and children by offering health guidance, psychological support, and personalized organizational tools.

Key Features:

1. User-Friendly Interface:

A seamless and responsive design that supports accessibility from various devices.

2. Stage-Based Tracking:

The platform is divided into tailored stages (pregnancy, childbirth, the first year, and early childhood) to provide relevant information and resources for each phase.

3. Educational Content:

Specialized videos and articles to help parents understand health and psychological changes.

4. Artificial Intelligence Features:

Innovative tools such as voice recognition to interpret a child's needs.

5. Health Reminders:

Customized notifications for vaccinations, doctor appointments, and child nutrition schedules.

6. Parental Guidance:

Dedicated support for fathers with practical advice to enhance their involvement in caregiving.

**7. Interactive Community:**

Forums for mothers and fathers to share experiences and learn from each other.

8. Healthcare Consultations:

Access to professional medical and psychological consultations.

Target Audience:

- Mothers (especially first-time mothers).
- Fathers.
- Pediatricians and childcare specialists.
- Healthcare institutions.

Primary Objective:

Haven aims to simplify the parenting journey by equipping parents with tools and information to create a safe, nurturing environment for their children. The platform fosters parental confidence, reduces stress, and supports the holistic well-being of families.

4.2 Software Model

After studying the different models of software, we found that using more than one model and taking advantage of each type is the best for the website that we will create:



1. Incremental development:

We will use this type of model to design a comprehensive structure for the system, so that the system is scalable, and focuses on releasing the software in multiple functional versions over time, allowing for continuous improvement and adding new features to the system, and we will fix the problems that the old version may suffer from, and we will add more appropriate courses and videos, and fit the stage that mothers are going through based on users' opinions in the old version.

Example:

- **Version 1:**
- Basic health tracking, reminders, and initial educational content.
- AI-powered crying recognition and an improved video library.
- Parenting tools, developmental milestone tracking, and social features.

Giving us:

- Continuous delivery of value to users.
- Easier management of changing requirements.
- Incremental improvement based on real-world usage.

Figure 2 shows how this model works

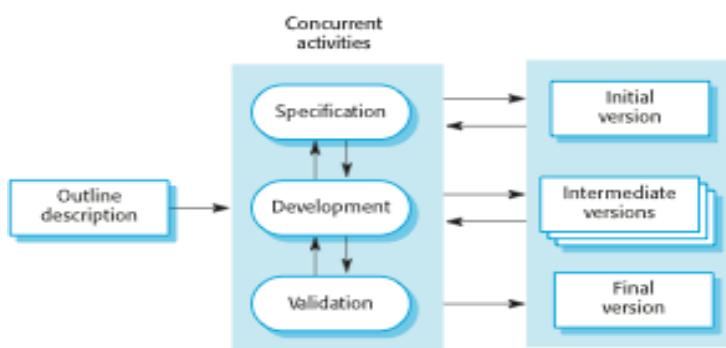


Figure 2 Incremental model



2. Reuse-oriented software engineering:

This type of model was chosen because it takes advantage of many out-of-the-box features and will be developed to suit our system. Therefore, we will use it in every release we develop. There are many videos on the Internet and many features available on the Internet that can be taken advantage of, and the features will be chosen very carefully to suit the needs of the users.

How reusability-oriented software engineering is applied to Haven:

- Reuse components:
- Customization and integration:

Figure 3 shows how this model works

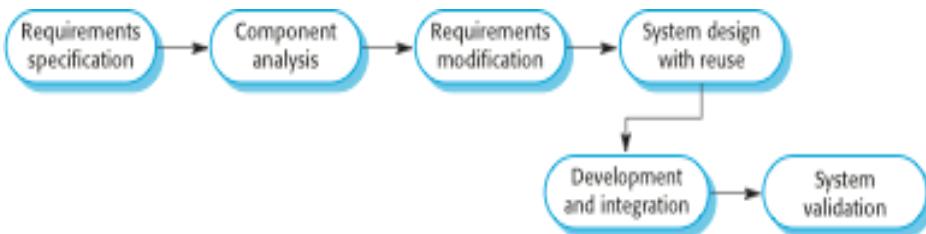


Figure 3 Reuse-oriented software model

- The general structure of the system is: **Incremental development**
- The structure assigned to each version in the system is: **Reuse-oriented software engineering**



4.3 AI & ML Integration – Infant Cry Classification Web App

4.3.1 Overview

Haven integrates an **Infant Cry Classification** system to assist parents in interpreting different types of infant cries. This feature uses a trained machine learning or deep learning model to classify uploaded baby cry audio files into predefined categories (e.g., hunger, discomfort, pain). The system provides a **prediction**, **confidence score**, and **visual feedback** such as waveforms and spectrograms.

4.3.2 Dataset

The classification model is trained using the **Infant Cry Audio Corpus**, available on Kaggle:

<https://www.kaggle.com/datasets/warcoder/infant-cry-audio-corpus>

- **Goal:**
To automatically identify a baby's needs (e.g., hunger, pain, discomfort) from their cries.
- **AI Models Used:**
 - **Deep Learning (most common and powerful):**
 - **CNNs (Convolutional Neural Networks):** Excellent for processing spectrograms (like images) to find patterns.
 - **RNNs/LSTMs (Recurrent Neural Networks/Long Short-Term Memory):** Good for sequential audio data, capturing temporal changes in cries.
 - **Traditional Machine Learning (also used, especially for simpler systems or specific feature sets):**
 - **SVM (Support Vector Machines):** Good for separating different cry types.
 - **Random Forest / XGBoost:** Powerful ensemble methods for classification.
- **Classification Categories (Examples):**
 - Hunger
 - Pain/Colic
 - Discomfort (wet diaper, tired)
 - General Distress

In essence, these systems take a baby's cry, analyze its unique acoustic "fingerprint," and then use advanced AI (primarily deep learning) to match that fingerprint to known patterns associated with different infant needs.



Chapter 5: Methodology

Methodology

We are looking forward to launching an advanced web platform using HTML, CSS and JS technology, aiming to facilitate the pregnancy and childbirth journey. This platform helps parents expand their knowledge. The platform will serve three categories of users: parents, mothers, and doctors.

Our methodology starts by collecting detailed data about each stage of pregnancy and childbirth, passing through the first year until the third year of the child's life, which enables us to provide a quick and effective display of these stages on the platform.

When parents log in to the system and create their accounts, pages and content tailored to both the mother and father will be displayed. Doctors must also submit membership applications, which will be reviewed and approved by administrators before they are allowed to view each patient's details.

Once the doctors' application is approved, their personal information such as name, email, phone number, address and other relevant details are securely stored in the system database. This information is securely stored to protect the privacy of vendors.

Encryption techniques can be used to ensure data security during transmission and storage. A powerful database management system such as MySQL, known for their flexibility and scalability, is used, allowing data to be managed and accessed efficiently. For users, once they reach the platform, they can easily browse the services at each stage. The platform is divided into several stages, making it easy for users to find the stage they want.



5.1 The Implementation Stack

To create large-scale applications and support AI, a specific implementation set is followed. This entails integrating certain technologies and employing languages, which will be explained and detailed in the table below.

Table 6 Overview of the Implementation Stack

Overview of the Implementation Stack	
Integrated Development Environment	<ul style="list-style-type: none"> • Visual Studio Code • XAMPP
Front-End Technologies	<ul style="list-style-type: none"> • HTML • CSS • JS • Bootstrap
Backend Language	<ul style="list-style-type: none"> • Node JS
Framework	<ul style="list-style-type: none"> • Express.js
API Test	<ul style="list-style-type: none"> • Postman
Database	<ul style="list-style-type: none"> • MY SQL
Artificial Intelligence Technology	<ul style="list-style-type: none"> • Python • Jupyter Notebooks
Authentication	<ul style="list-style-type: none"> • JWT (JSON Web Tokens)
Security	<ul style="list-style-type: none"> • Helmet.js, bcrypt
File Handling	<ul style="list-style-type: none"> • Multer (for audio/image uploads)
ML Classification	<ul style="list-style-type: none"> • XGBoost
Powerful Tools	<ul style="list-style-type: none"> • Git & GitHub



5.2 Integrated Development Environment (IDE)

plays a crucial role in the development process, offering tools to write, debug, and manage code effectively. For this project:

5.2.1 Visual Studio Code (VSCode)



We utilized **Visual Studio Code (VSCode)** to create the necessary markup and script code for the website to implement the **Correspondence & Workflow Management System prototype**. Specifically, the development approach employs **Microsoft Visual Studio Code 2024**, which provides robust features to support efficient development.

Key Features of Microsoft Visual Studio Code:

- **Cross-Platform Compatibility:** Available for Windows, macOS, and Linux, making it a versatile choice for developers across various platforms.
- **Advanced Coding Tools:** Includes intelligent code completion, syntax highlighting, and debugging capabilities.
- **Multi-Language Support:** Supports numerous programming languages, making it ideal for developing the front-end and back-end components of the system.
- **Extension Marketplace:** Offers a wide range of plugins and extensions to enhance productivity and adapt to project-specific needs.
- **Integrated Git Support:** Simplifies version control and collaboration by seamlessly integrating Git commands and repositories.

➤ Why VSCode?

With its advanced tools, **Microsoft Visual Studio Code 2024** allows businesses to design, debug, test, and deploy applications for various platforms, including Android, iOS, macOS, Windows, web, and cloud environments. Its compatibility with leading



desktop platforms and user-friendly interface makes it an ideal choice for this project.

By leveraging VSCode, the development team efficiently implemented the system prototype, ensuring a streamlined development process and high-quality outcomes.

5.2.2 XAMPP



Purpose

XAMPP will serve as the local development environment to support application development and testing. It provides an integrated platform for running a web server, managing databases, and executing server-side scripts.

Components

- **Apache Server:** Hosts the web application locally for testing and debugging purposes.
- **MariaDB Database:** Used for creating and managing relational databases required by the application.
- **PHP Interpreter:** Executes server-side PHP scripts for backend functionality.
- **phpMyAdmin:** Simplifies database administration through a web-based graphical interface.

Reasons for Selection

- Easy installation and configuration.
- Cross-platform compatibility (Windows, Linux, and macOS).
- Supports all technologies required by the project (Apache, PHP, and MariaDB).
- Free and open-source, making it cost-effective for development.



Usage in Development

- Develop and test PHP-based backend features.
- Manage database schemas, queries, and test data using phpMyAdmin.
- Debug and refine the application in a simulated production-like environment.

5.3 Front-End Technologies for Haven

The Haven project will use the following front-end technologies to create a user-friendly, responsive, and visually appealing interface:

1. HTML (Hypertext Markup Language):



Acts as the backbone of a website, defining the structure and content of web pages. Used to create essential elements such as forms, navigation bars, and sections to display videos, reels, courses, reminders, and other features.

Application in Haven:

- Organize health tracking and reminder sections.
- Organize content such as parenting guides and educational videos into easily navigable layouts.

2. CSS (Cascading Style Sheets):



Enhance the visual presentation of a website by defining styles, layouts, and colors. Ensures consistency and aesthetically pleasing design across all pages.

Application in Haven:

- Styling user interfaces, including buttons, drop-down menus, and forms.
- Create visually appealing layouts for content and ensure compliance with Islamic design principles.



3. JavaScript (JS) :

Add interactivity and dynamic functionality to a website. Handle client-side logic, such as form validation, animations, and dynamic updates without refreshing the page.

Application in Haven:

- Implement features such as reminders and notifications. Add interactivity to educational videos (e.g., play/pause functions).
- Enable dynamic updates for features such as user feedback forms or health trackers.

4. Bootstrap :



A front-end framework that simplifies the development of responsive, mobile-friendly web designs. Provides pre-built components such as navigation bars, pop-ups, and grid systems.

Application in Haven:

- Ensure that the website is fully responsive and accessible on different devices (e.g., smartphones, tablets, and desktops).
- Use Bootstrap's grid system to create flexible content layouts.
- Use pre-built components such as carousels to display featured videos or parenting tips.

➤ Benefits of combining these technologies

1. HTML and CSS: Ensures a robust structure and attractive design for the platform.
2. JavaScript: Adds interactivity and improves user experience.
3. Bootstrap: Speeds up development and ensures responsiveness across devices.



5.4 Back-End Technologies

The back-end of the Haven application will be developed using **NODE JS**. PHP is chosen as the core back-end technology due to its flexibility, scalability, and ease of integration with databases and front-end frameworks.

5.4.1 NODE JS :



is a powerful and versatile back-end JavaScript runtime environment that enables the execution of JavaScript code outside the web browser, specifically on server-side systems. We have chosen Node.js for developing our RESTful APIs because it allows us to separate the application's logic from the front-end code. This modular approach enhances scalability, simplifies development, and promotes better maintainability of the application.

5.4.2 Express JS:

Express.js is a fast and minimalist web application framework for Node.js. It provides a simple yet powerful set of features for building web applications and APIs. With Express.js, developers can efficiently handle routing, manage middleware functions, and process HTTP requests and responses. Its flexible and modular structure allows for the creation of scalable and maintainable applications.

Express.js includes a wide range of built-in middleware and supports third-party middleware for additional functionality. Its lightweight nature and straightforward syntax make it a popular choice for developers aiming to build efficient and robust web applications with Node.js.

➤ Key Benefits of Express.js:

- **Easy Routing:** Simplifies handling incoming requests with a straightforward routing system for different URLs and HTTP methods.
- **Middleware Support:** Enables tasks like authentication, logging, error handling, and data parsing, improving code reusability and separation of concerns.
- **Powerful HTTP Utilities:** Provides robust HTTP utility methods for handling request/response objects, setting headers, redirects, and other common operations.



- **Active Community and Documentation:** Backed by a thriving community and comprehensive documentation, offering ample resources and support for developers.

As per a 2024 study by Statista, Node.js is the most widely used web framework globally, with React.js ranking second.

5.4.3 API Testing Interface (Postman)

Description:

The system's RESTful APIs will be tested using [Postman](#), a widely adopted API testing tool. Postman will be used during development, testing, and validation stages to ensure all endpoints conform to expected behavior and performance.

Purpose:

To validate the functional behavior of API endpoints, ensure correct responses for valid and invalid inputs, and test authentication, error handling, and data transactions.

Functional Scope:

- Sending HTTP requests (GET, POST, PUT, DELETE) to backend endpoints.
- Defining request headers, query parameters, and JSON body content.
- Viewing response status codes, payloads, and response times.
- Automating test scripts using Postman's built-in testing feature.

Example Request:

- **Method:** POST
- **Endpoint:** <http://localhost:3000/api/login>

5.5 Database



For the Haven project, we have chosen SQL as the primary database technology, integrated with NODE JS for backend development. This combination ensures efficient handling of structured data, scalability, and seamless interaction between the web application and the database.



➤ Database Management System (DBMS)

- MySQL is a robust, open-source relational database management system that is widely used for web applications.
- It ensures high performance, security, and data integrity while being easy to integrate with NODE JS.
- MySQL will store structured data, such as user profiles, reminders, video metadata, and system logs.

➤ Database Schema

The database will be structured to support the functionalities of Haven, with the following key tables:

- **Users:** Stores user information (e.g., name, email, password, role).
- **Reminders:** Tracks reminders for doctor appointments, medications, and nutritional advice.
- **Doctor:** stores doctor with city .

4.6.1 MySQL :

MySQL is an open-source relational database management system (RDBMS) that uses Structured Query Language (SQL) to manage and manipulate data. It is widely used for storing and retrieving data in applications ranging from small websites to large enterprise systems.

MySQL provides a reliable, scalable, and efficient platform, compatible with different operating systems and programming languages.

➤ Key features

include transaction support, data security, and high performance.

Known for its ease of use and flexibility, MySQL is well-suited for applications that require managing structured data and processing complex queries quickly.



- **Content:** Manages parenting guides, videos, and courses.
- **AI_Analysis:** Stores data related to crying analysis and other AI-driven features.

➤ Security Measures

- SQL queries will be secured against SQL injection using parameterized queries with PHP's .
- User passwords will be hashed and stored securely using PHP's password_hash function.

➤ Scalability

The database structure will allow scalability to accommodate future features, such as:

- Additional parenting courses and AI-driven functionalities.
- Support for more users and larger datasets.
- Indexing and optimization techniques will ensure efficient query performance.

5.6 Artificial Intelligence Technology

5.6.1 python



We use the python language for:

1. Machine Learning:

Scikit-learn, XGBoost, and LightGBM for predictive models.

2. Deep Learning:

TensorFlow and PyTorch for cry analysis and speech recognition.

3. Natural Language Processing (NLP):

spaCy and NLTK for processing user feedback and text.



4. Audio Analysis:

Librosa and SpeechRecognition for cry detection and audio processing.

Data Processing Workflow:

- **Data Collection:** User input, audio files, and interactions.
- **Preprocessing:** Cleaning and preparing data for AI models.
- **Model Training:** Using Python libraries to train models for predictions.
- **Prediction:** Real-time analysis for feedback and suggestions.



5.6.2 Jupyter Notebooks

Jupyter Notebooks will be used in the **Haven** project for developing and testing AI models, particularly for tasks like cry detection, voice recognition, and personalized recommendations. It provides an interactive environment to build, train, and evaluate models using Python-based libraries such as **Scikit-learn**, **TensorFlow**, and **PyTorch**. Data preprocessing and exploratory analysis will also be performed in Jupyter. The notebooks allow for easy collaboration, prototyping, and sharing of experiments. This tool ensures rapid iteration and refinement of AI models throughout the project.

5.7 Powerful Tools

5.7.1 Git & GitHub



Git is a free and open-source distributed version control system designed to handle everything from small to very large projects with speed and efficiency. Git enables and promotes the creation of several individual local branches that can operate separately from one another. Generating, combining, and removing those paths of progress happens quickly.



➤ This implies that you have the ability to perform tasks such as:

- Establish a new branch to test an idea, make multiple commits, return to the original branch, implement a patch, go back to the experimental branch, and then merge the changes.
- Maintain a main branch exclusively for production-ready code, a testing branch for merging work for testing, and multiple smaller branches for daily tasks.
- Generate additional branches for every new feature being worked on in order to easily switch between them, and then remove each branch once the feature is merged into the primary line.
- Establish a branch for testing, acknowledge its ineffectiveness, and simply discard it.

GitHub is a profit-making corporate entity that provides a service for hosting Git repositories in the cloud. In essence, it simplifies the use of Git for version control and collaborative work for both individuals and teams. Even beginners can easily use Git thanks to GitHub's user-friendly interface. Using Git without GitHub typically demands additional technical skills and reliance on command-line usage. Some individuals utilize GitHub to handle different kinds of projects, such as writing books, because of its user-friendly interface. Furthermore, GitHub is widely favored by open-source projects because it allows anyone to create and manage a public code repository at no cost



Chapter 6: Software Diagrams

6.1 Use Case Diagram

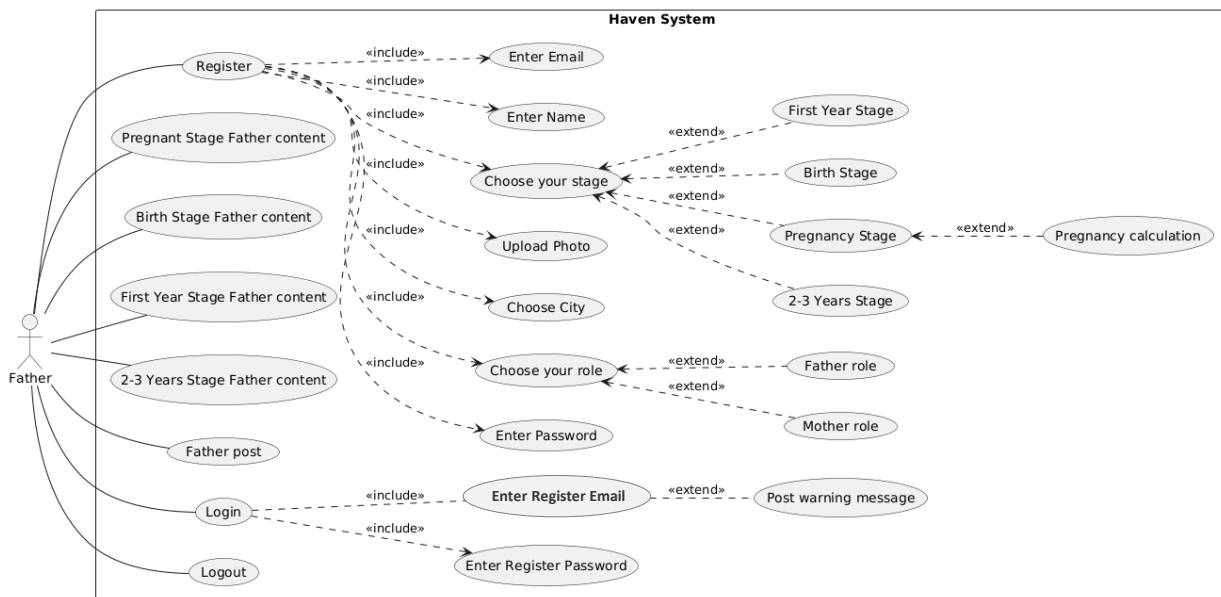


Figure 4 Use Case Diagram For Father

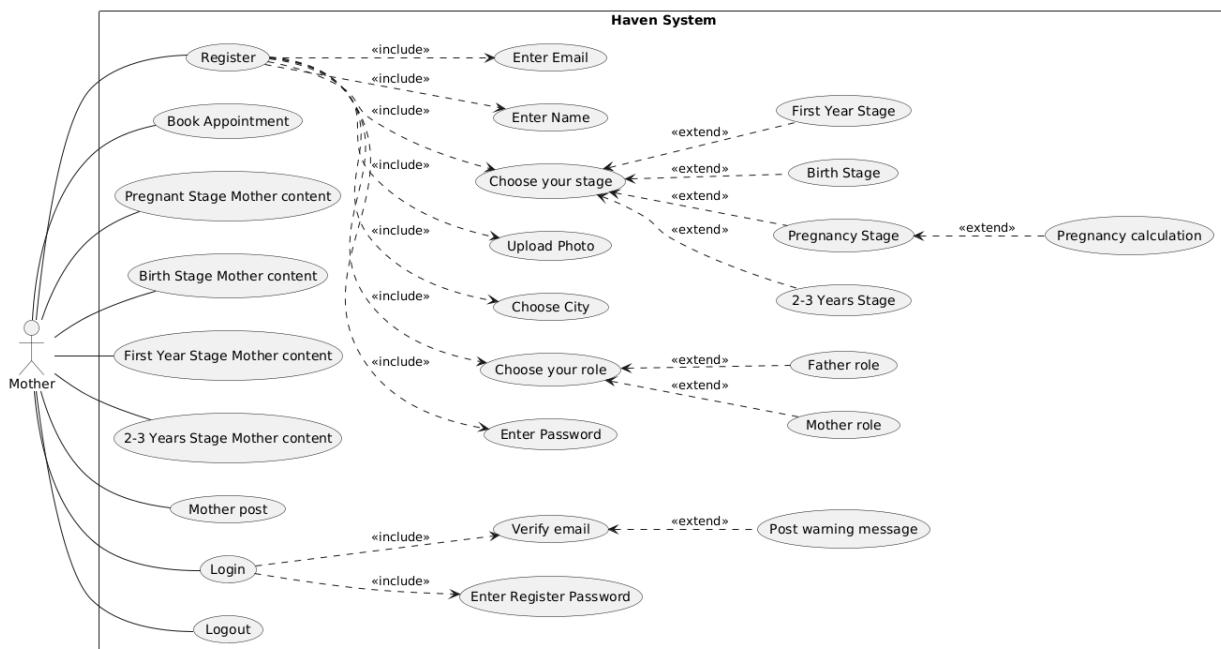


Figure 5 Use Case Diagram For Mother

SOFTWARE DIAGRAMS

CHAPTER 6

HAVEN

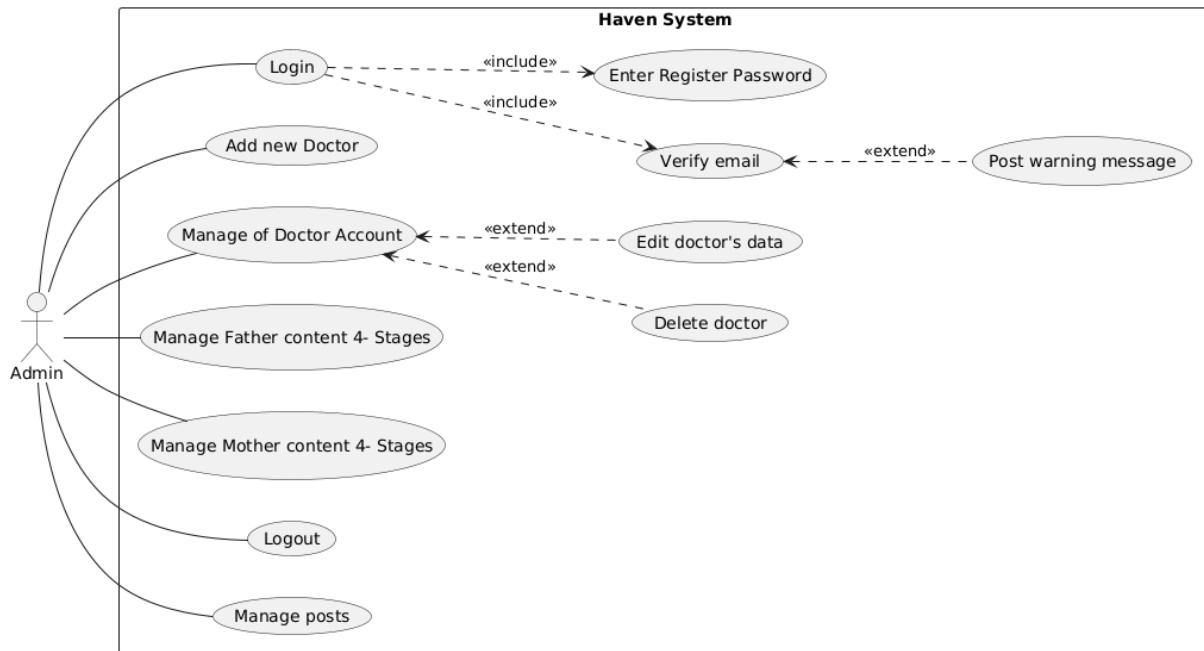


Figure 6 Use Case Diagram For Admin

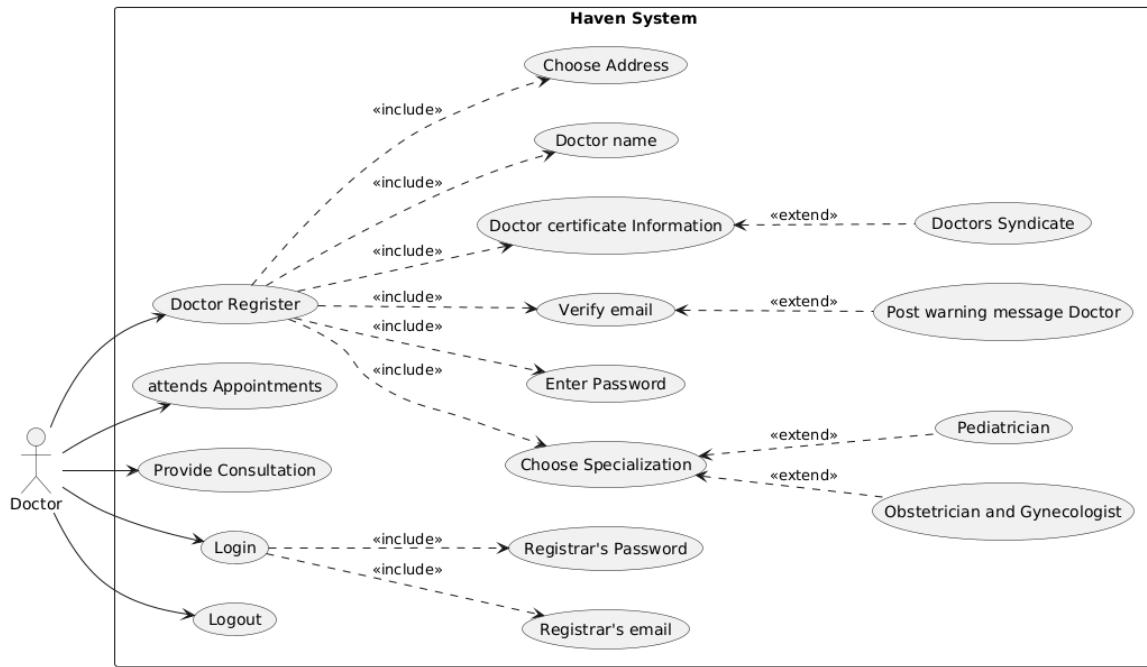


Figure 7 Use Case Diagram For Doctor

SOFTWARE DIAGRAMS

CHAPTER 6

HAVEN

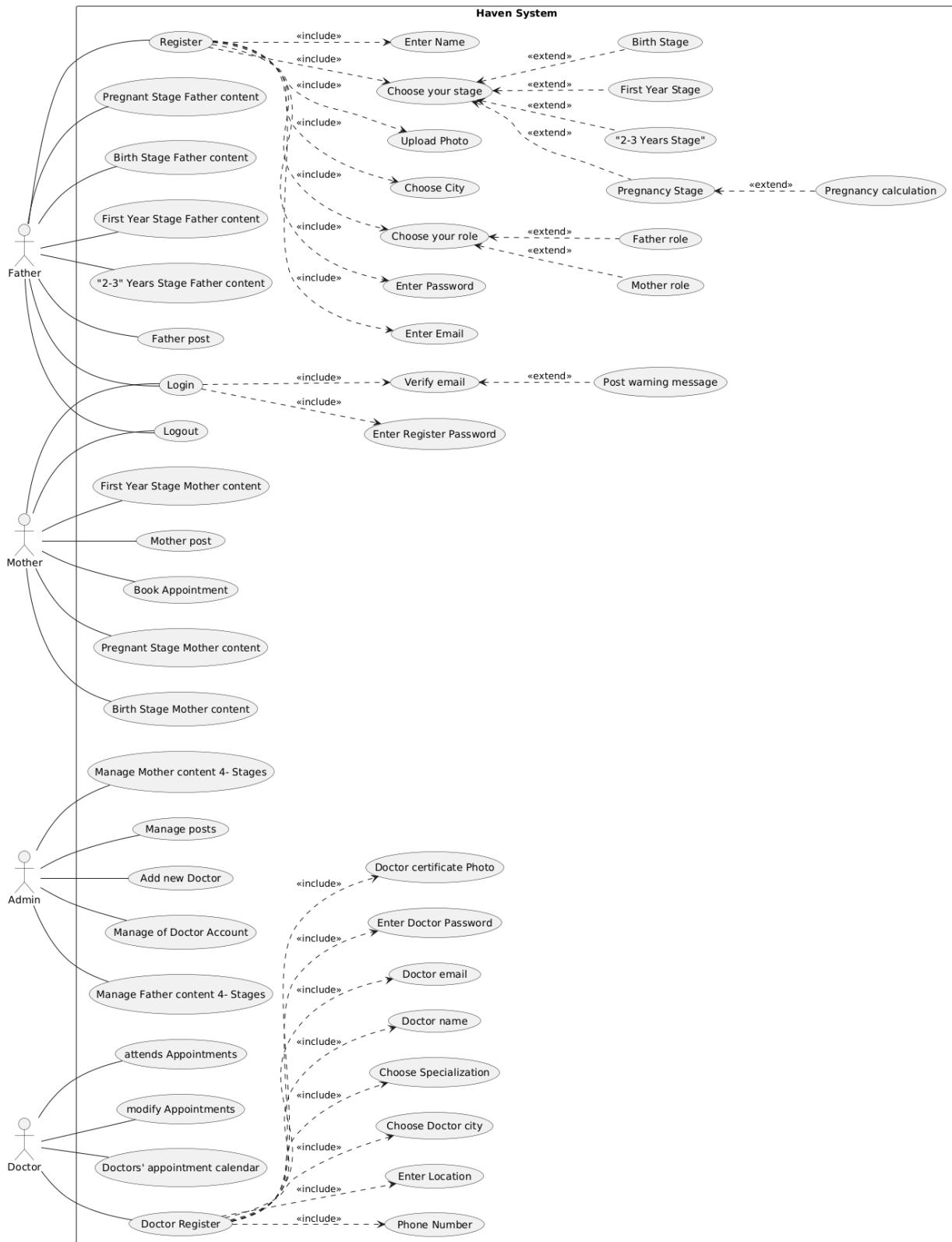


Figure 8 Use Case Diagram For Haven



6.1 Fully developed use case description.

Use Case Title: Father Login and View Relevant Content

Primary Actor: Father

Goal: The Father wants to log into the Haven System and view information and resources tailored to his family's current stage of pregnancy or the early years of their child.

Preconditions:

1. The Father has a registered account in the Haven System.
2. The Father has access to a device with a web browser.
3. The device has an active internet connection.
4. The Father's profile includes information about his wife's current stage (pregnancy month, child's age, e.g.).

Postconditions:

- Success Scenario: The Father is successfully logged into the Haven System and can view the dashboard containing content relevant to his wife's current stage.
- Failure Scenario:
 - The Father fails to log in due to incorrect credentials. The system displays an error message.
 - The system encounters an error retrieving the Father's profile or relevant content. The Father sees an error message or a partially loaded dashboard.

Main Success Scenario:

1. Actor Action: The Father opens the Haven System login page (web).

System Response: The system displays fields for email/username and password.

2. Actor Action: The Father enters his registered email/username and password.

System Response:

1. The Father initiates the login process.
2. The system validates the provided credentials against the stored user data.
3. Upon successful validation, the system retrieves the Father's profile from the database.



4. The system identifies the wife_state associated with the Father's profile.
5. The system retrieves Father's content (articles, tips, resources, etc.) that are tagged or associated with the identified wife_state.
6. The Father views the displayed content, navigates through different sections of the dashboard, and may interact with available features.

3. Actor Action: When finished, the Father initiates the logout process.
System Response: The system logs the Father out of the Haven System and redirects him to the login page or a confirmation screen.

Alternative Flows:

a. Invalid Credentials

- System detects mismatch in entered email/username or password.
- Displays error: "*Invalid email/username or password. Please try again.*"
- Returns user to the login page for re-entry.

5b. Account Not Found

- No account matches the entered email/username.
- Displays error: "*Account not found. Please check your email/username or register.*"
- Remains on login page.

6a. Profile Retrieval Error

- Error occurs while fetching Father's profile data.
- Displays error: "*An error occurred while logging in. Please try again later.*"
- Login process may halt or proceed with limited access.

8a. Content Retrieval Error

- System fails to load content for the selected wife stage.
- Displays partial dashboard or error message indicating missing content.

Special Requirements:

- The system should ensure secure transmission and storage of login credentials.
- The content displayed should be relevant and up-to-date for the identified wife_state.
- The system should handle potential database errors gracefully and provide informative error messages to the user.
- The dashboard should be user-friendly and easy to navigate.
- Performance should be adequate to ensure a responsive login and content loading experience.



Mother User Case

Use Case Title: Mother Login and View Content + Book Appointment

Primary Actor: Mother

Goal: The Mother wants to log into the Haven System to view personalized content based on her pregnancy or child stage, and book an appointment with a doctor.

Preconditions:

- The Mother has a registered account in the Haven System.
- The Mother has access to a device with a web browser.
- The device has an active internet connection.
- The Mother's profile includes current pregnancy or child development stage.

Postconditions:

- Success Scenario: The Mother is logged into the system, views stage-relevant content, and can book an appointment.
- Failure Scenario:
 - Login fails due to incorrect credentials.
 - Profile or content retrieval fails.

Main Success Scenario:

1. The Mother opens the Haven System login page.
2. The system displays login fields.
3. The Mother enters her email/username and password.
4. The system validates the credentials.
5. Upon success, the system retrieves her profile.
6. The system displays personalized content based on her pregnancy or child stage, and send Notification.
7. The Mother navigates to the appointment section.
8. The Mother books an appointment with a doctor.
9. The system confirms the appointment and updates the dashboard.



Extensions / Exceptions:

1. Incorrect Credentials:

- System displays: "Invalid email/username or password."

1. Account Not Found:

- System displays: "Account not found. Please register."

2. Error Retrieving Profile:

- System displays: "An error occurred while logging in."

3. Error Retrieving Content:

- System shows partial dashboard or an error message.

Special Requirements:

- Secure login and data handling.
- Content relevancy based on stage.
- User-friendly interface.
- Responsive and informative error handling.



Use Case Title: Doctor Login and Provide Consultation

Primary Actor: Doctor

Goal: The Doctor wants to log into the Haven System to manage appointments and provide consultations to mothers or fathers.

Preconditions:

1. The Doctor is registered in the Haven System and has been approved by the admin.
2. The Doctor has a device with an internet connection and a compatible browser.
3. The Doctor has been assigned a specialization and city.

Postconditions:

- **Success Scenario:** The Doctor is successfully logged in and can view scheduled appointments and provide consultation.
- **Failure Scenario:**
 - Invalid credentials prevent login, and an error message is shown.
 - Profile retrieval fails due to a system error.
 - No appointments are displayed if none are scheduled or due to loading issues

Main Success Scenario:

1. **Actor Action:** The Doctor accesses the Haven System login page.
System Response: Displays login fields for email/username and password.
2. **Actor Action:** The Doctor enters credentials and clicks "Login."
System Response: Validates credentials and, if successful, loads the doctor's profile.
3. **System Response:** Retrieves appointments based on the doctor's specialization and city.
4. **System Response:** Displays a dashboard with the list of upcoming appointments.
5. **Actor Action:** The Doctor selects an appointment from the list.
System Response: Loads the patient's consultation interface with basic details.
6. **Actor Action:** The Doctor provides consultation notes and recommendations.
System Response: Saves the consultation and confirms completion.

Alternative Flows / Exception Conditions:

Incorrect Credentials:

- The system shows an error: "Invalid login details."

Profile Retrieval Error:

- The system displays a general error message and prevents access.



No Appointments Found:

- The dashboard shows: "No appointments scheduled."

Consultation Save Failure :

- Displays error: "Unable to save consultation. Please try again."

Special Requirements:

- Secure credential handling.
- Appointment data must be current.
- Responsive interface for doctors to interact quickly.
- Error messages must be clear and user-friendly.



Use Case Title: Doctor Login and Attend Appointments

Primary Actor: Doctor

Goal: The Doctor wants to log into the Haven System, view their scheduled appointments, and provide consultations to patients.

Preconditions:

1. The Doctor has a registered and verified account in the Haven System.
2. The Doctor's account has been approved by the Admin.
3. The Doctor has access to a device with a web browser and internet connection.

Postconditions:

- **Success Scenario:** The Doctor successfully logs into the system, accesses the list of scheduled appointments, and attends to them by providing consultations.
- **Failure Scenario:**
 - The Doctor enters incorrect credentials and fails to log in.
 - The system is unable to retrieve appointments due to technical/database errors.

Main Success Scenario:

1. **Actor Action:** The Doctor opens the Haven System login page.
System Response: Displays fields for email/username and password.
2. **Actor Action:** The Doctor enters login credentials and submits the form.
System Response:
 - Validates credentials.
 - If correct, retrieves the Doctor's profile and displays the dashboard.
3. **Actor Action:** The Doctor navigates to the "Appointments" section.
System Response: Fetches and displays a list of upcoming scheduled appointments.
4. **Actor Action:** The Doctor clicks on an appointment to start a consultation.
System Response: Opens consultation interface with patient details.
5. **Actor Action:** The Doctor provides consultation and submits notes or prescriptions if needed.
System Response: Saves consultation data to the system.



Extensions / Alternative Flows:

- **Incorrect Credentials:**
 - System displays: "*Invalid email or password.*"
 - Doctor remains on login screen.
- **Unverified/Unapproved Account:**
 - System displays: "*Your account has not yet been approved by the Admin.*"
- **Error Fetching Appointments :**
 - System displays: "*Unable to load appointments. Please try again later.*"
- **Error During Consultation :**
 - System shows a message: "*Unable to save consultation notes. Please try again.*"

Special Requirements:

- Secure authentication for Doctor login.
- Appointment data must be accurate and up-to-date.
- Interface for providing consultation should be intuitive and support notes/prescriptions.
- Data should be stored securely and comply with privacy regulations.



6.2 Entity Relationship Diagram (ERD)

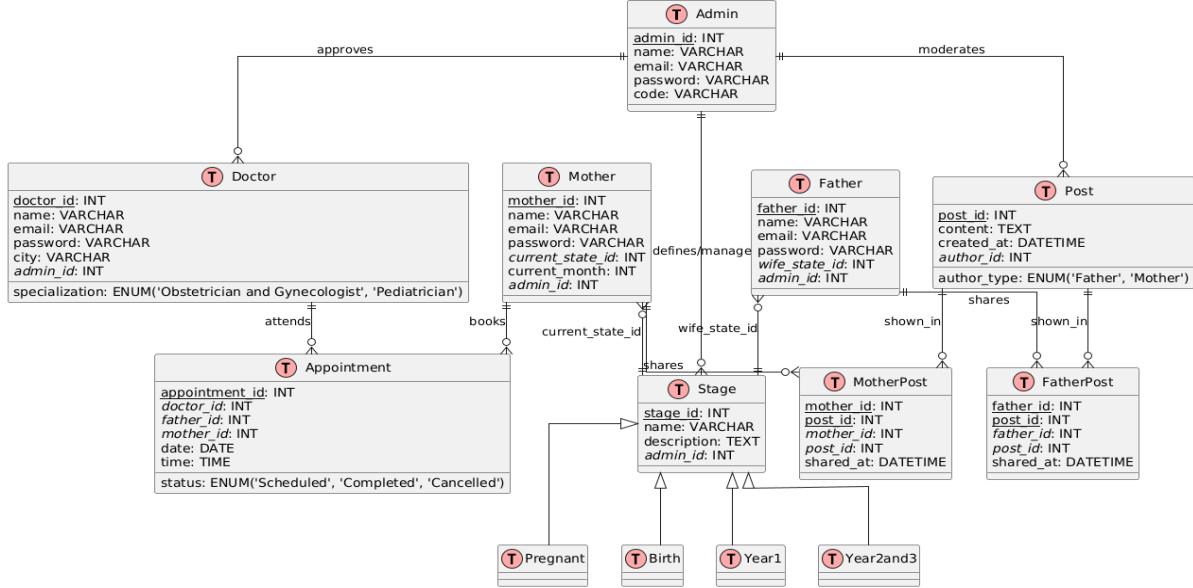


Figure 9 Entity Relationship Diagram (ERD)

What it is:

Displays the main data entities in the system and the relationships between them (used to design the database).

How it works:

Consists of "Entities" (e.g., Mother, Child, Doctor) and "Relationships" (e.g., a mother gives birth to a child, a doctor monitors a child).

Defines the attributes within each entity (e.g., mother's name, email).

Purpose:

Assists in designing the database and defining how data is connected.



6.3 Activity Diagram:

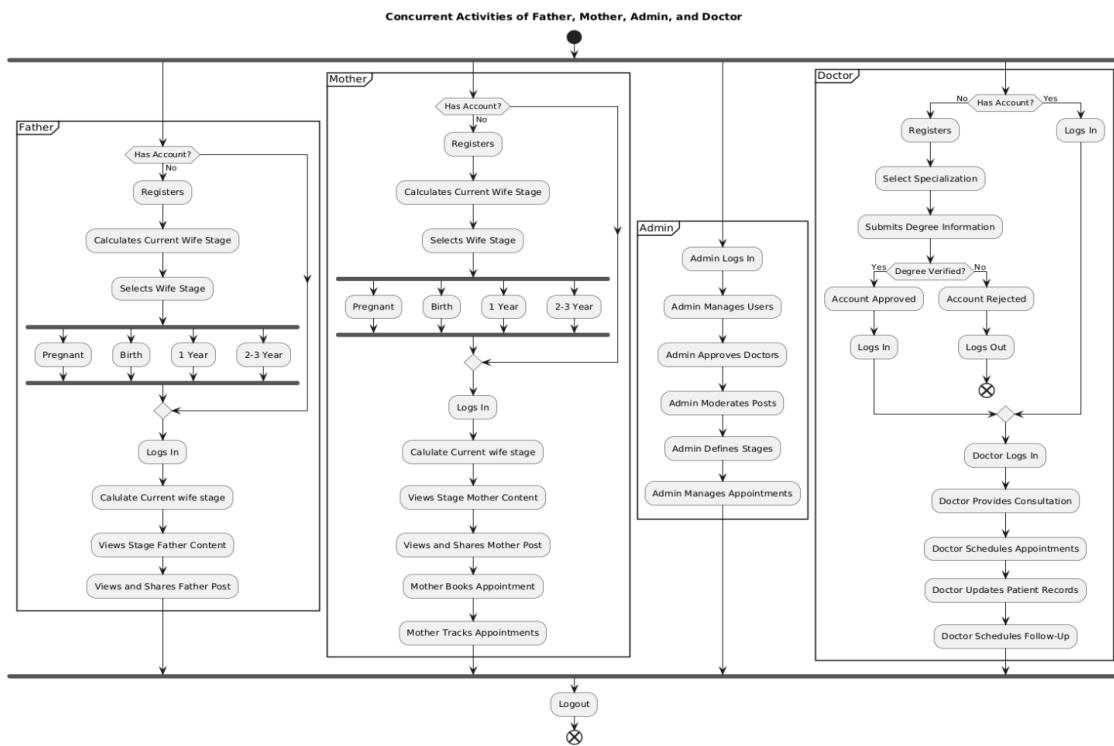


Figure 10 Activity Diagram

What it is:

Shows the sequence of steps or actions involved in performing a specific task or process.

How it works:

Illustrates the flow of events within the system during a task.

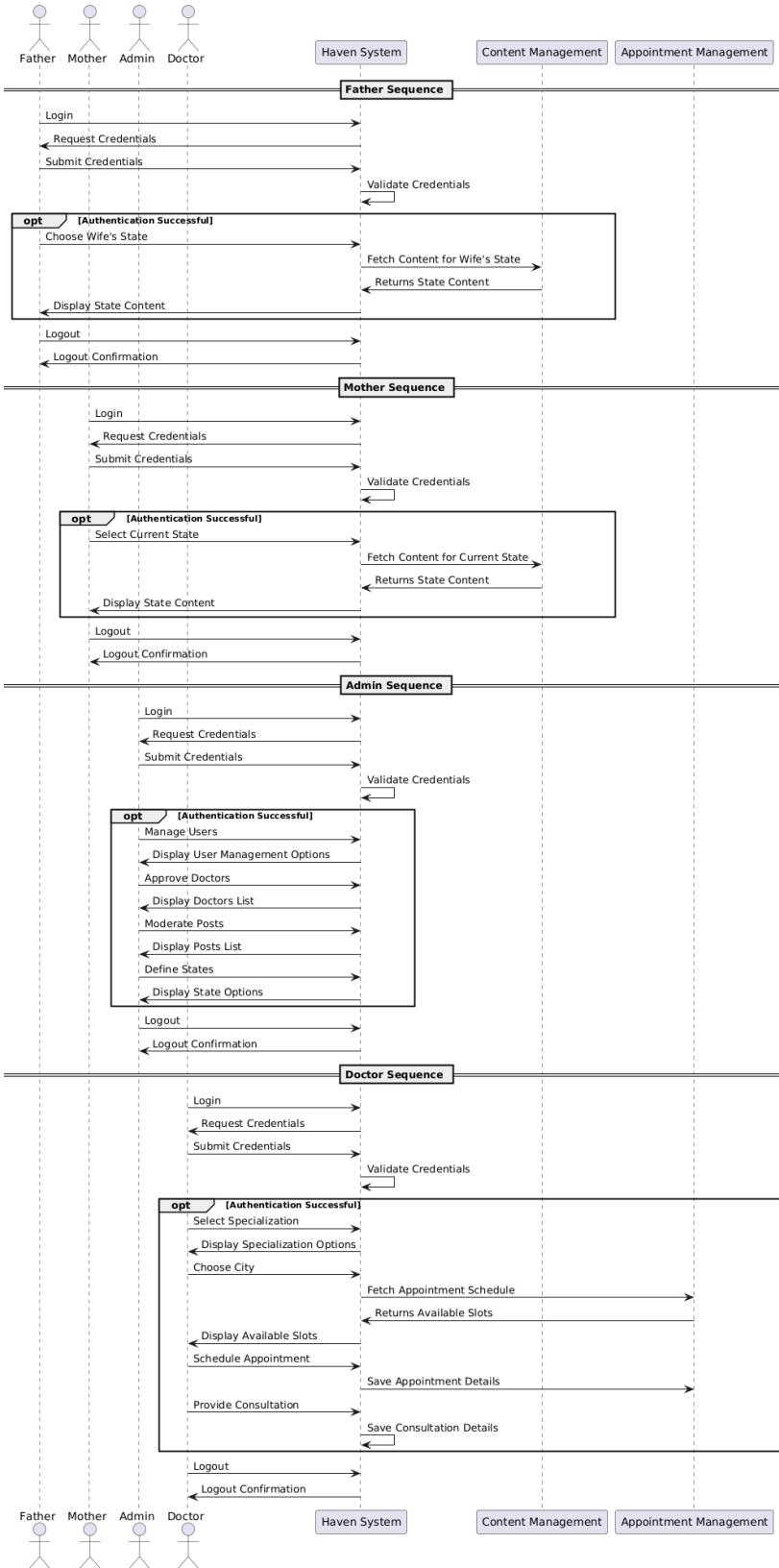
Example: From logging in → selecting a feature → executing the action → receiving a notification.

Purpose:

Helps visualize the logical processes and how users interact with the system over time.



6.4 Sequence Diagram





What it is:

Demonstrates how components (like frontend, backend, and database) interact through messages to accomplish a specific task.

How it works:

Shows the timeline of communication between system parts.

Example: The user sends a request → the server receives it → sends a query to the database → gets a response → displays data to the user.

Purpose:

Crucial for understanding how operations are executed internally, step-by-step.

6.5 Class Diagram

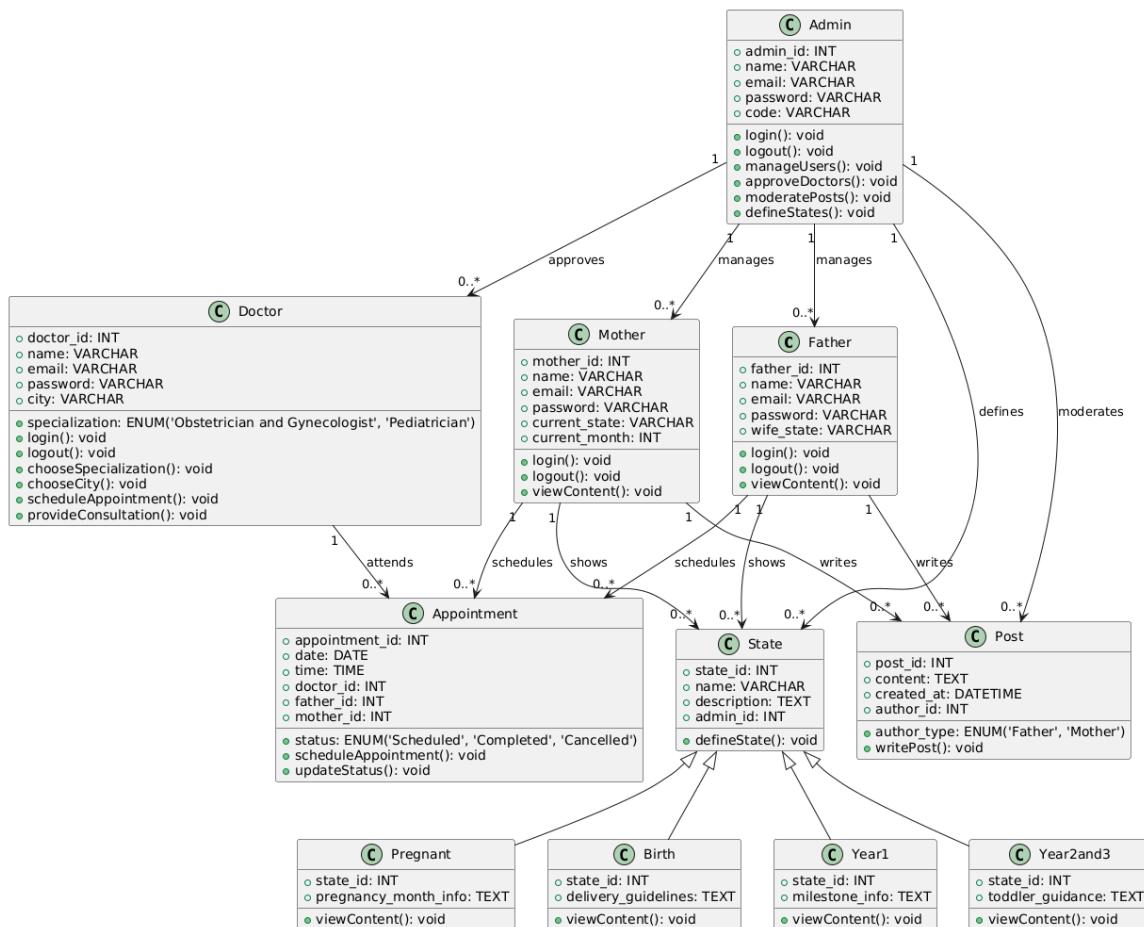


Figure 11 Class Diagram



What it is:

Shows the internal structure of the code using object-oriented programming principles.

How it works:

Includes "Classes" (e.g., User, Doctor, Child) with their attributes and methods.

Displays relationships such as inheritance, association, and aggregation.

Purpose:

Helps developers understand the system's code structure and how responsibilities are divided between classes.



Chapter 7: UI Sketch

7.1 sign up page

Figure 12 Sign Up

7.2 login page

Figure 13 Log in



7.3 Home page screen



أدخل إلى عالم هافن
ملاذك لرحلة أبوية سعيدة

[انضم إلينا](#)



من هافن

بدأت هافن كمشروع تخرج من جامعة فلسطين التقنية خصوصي بروبوري تهدف إلى تمكين الآباء والأمهات، ولليوم، تقدم موقعاً إلكترونياً شاملّاً للأمومة، تقدّم موارد أساسية لرحلة الأمومة من العمل إلى الأسرّات الثلاث الأولى، نحن ملتزمون بتوفير معلومات دقيقة وبناء مجتمع داعم لجميع الآباء والأمهات.

جامعة فلسطين التقنية - خصوصي
Palestine Technical University - Kadara

- [أعضاء الفريق](#)
- [رؤية هافن](#)
- [سبل اختيار الاسم](#)

UI SKETCH

CHAPTER 7

HAVEN



Figure 14 Home Page

7.4 Drop-down menu

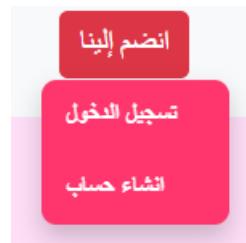


Figure 15 Drop Down



7.5 Pregnant Page



هافن

الصفحة الرئيسية

من نحن

فروات

المراحل

الجلسية

الأطباء

انضم إلينا



مراحل الحمل

الشهر الأول
الشهر الثاني
الشهر الثالث
الشهر الرابع
الشهر الخامس
الشهر السادس

الشهر السابع
الشهر الثامن
الشهر التاسع
الشهر العاشر

دور الآب

تجارب الأمهات

الأطباء

حاسبة الحمل



ما هو دور الآباء أثناء الحمل؟

دور الآباء له تأثير كبير على صحة وسعادة أطفاله - وهو تأثير يبدأ من قبل ولادة الطفل. أظهرت الدراسات أن الآباء الذي يواكب زوجته أثناء الحمل، يكون أطفاله أكثر صحة وسعادة. إنها بعض النصائح التي تخص الآباء في ما يلي:

- 1. استمع وتحدد الالها. فهي تشعر بالمسؤولية الكبيرة التي تنتظراها.
- 2. ساعدها وإنها ليست متغيرة فقط هذه الأيام ، بل هي عاطفة زيادة عن العادة.
- 3. وضي اغراض المستشفى، يحتاج الآباء أيضًا إلى حقيقة مستشفى.
- 4. شجعوا وطمئنوا.
- 5. أسألها عما تحتاجه منه.
- 6. اظهر لها مودتك، أمسك يده وعاقها.
- 7. حاول أن تأكل الأطعمة الصحية لتساعدها على تناول الطعام المقيدة لها أيضًا.
- 8. شجعوا على أحد فنوات راحة وقلولة.

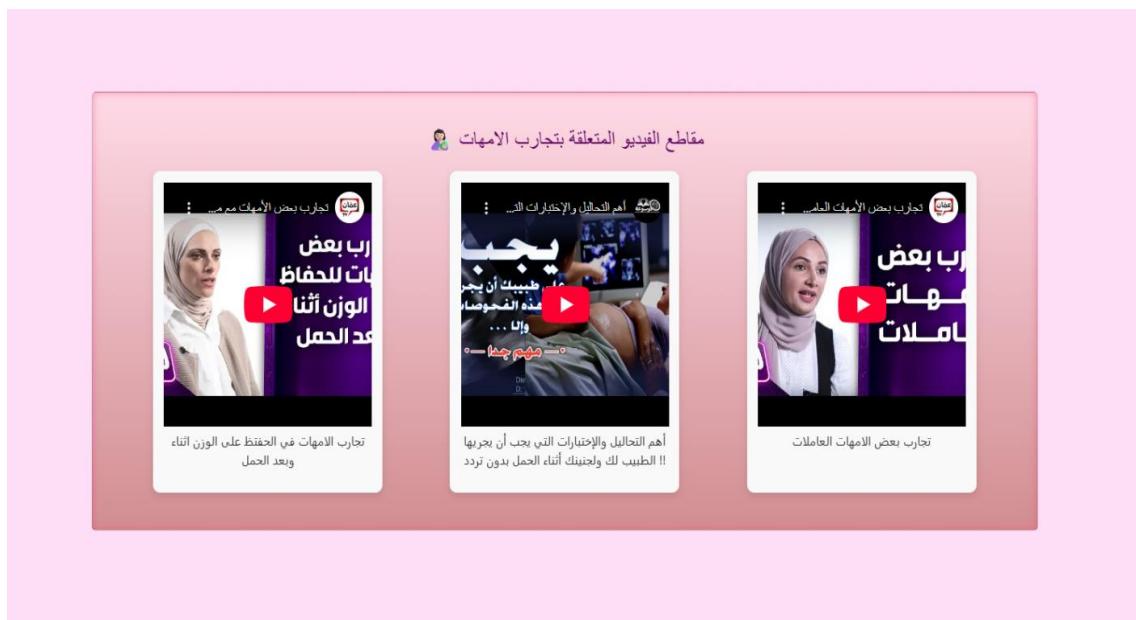


Figure 16 Pregnant Page



7.6 Stages of Pregnant

أيات عن الحمل

- ﴿وَزُوْجِكَ الْأَصْلَنْ يَلْبَسُهُ خَلْفَةً أَمْ وَهُنَّ عَلَىٰ فِي الْأَمْانِ﴾ (الأنفال: 14)
- ﴿شَتَّقَتْ مَعَهُ مِنْ طَرِيقِهِ مِنْ بَيْنِ ظَرْبَتْ وَهُنَّ لَيْلَةً خَلْفَتْ تَلْكَىٰ تَشْرِين﴾ (العلق: 66)
- ﴿وَخَلَلَهُ وَرَسَلَهُ تَلْكَىٰ تَهْرِيزَ﴾ (النجم: 15)
- ﴿فَإِنَا لَنْسَكَنَ الْمُبَيِّنَةَ تَلْكَىٰ تَلْكَىٰ﴾ (آل عمران: 165)
- ﴿بَعْدَهُ لَكَمْ بَرَأَتْ تَلْكَىٰ تَهْرِيزَ﴾ (الكافرون: 16)

نصائح سريعة

- تناول وجبات متوازنة
- احرصي على شرب الماء
- مارسي الرياضة بالقطف
- لابي جيداً للحسين صحيحاً وصححة الجلتين

اعراض الحمل في الشهر الأول

- عيوب الدورة الشهرية
- الغثيان الصباحي
- الصداع والإرهاق المستمر
- كثرة التبول
- فقدان الماء
- النفاس والآلام في الثديين

التغيرات الجسمانية والهرمونية

- زيادة مستوى هرمون HCG الذي يوكل العمل
- ارتفاع مستوى هرمون البروجسترون الذي يساعد في ثبات العمل
- زيادة تدفق الدم لدعم الجنين
- نزارات في الشهيد والرغبة في النول أطحمة محلية
- الإحساس بالدوار والخفقان من عند الدم

ادعية

- ﴿زَتَ قَتَ لِي مِنَ الْمُسْلِمِينَ﴾ (الصلوات: 100)
- ﴿زَتَ لَذَنْدِي فَرِي وَلَكَ خَلْدَةَ الْأَرْزَاقِ﴾ (الليليات: 89)
- ﴿وَالْأَمْمَمْ فَرِي عَيْنَ لَيْ﴾ (الرعد: 15)
- ﴿اللَّهُمَّ حَلِي خَلْدَةَ وَلَانِي مُبِيرَةَ وَنَارِكَ لِي فِي طَلَبِي﴾ (المراثي: 1)
- ﴿اللَّهُمَّ لَذَنْدَهَ خَلْدَنِي مِنْ كُلِّ سُوءٍ وَبِرَاهَ لِي فِي هِيَ﴾ (النور: 10)
- ﴿اللَّهُمَّ إِنِّي أَسْتَوْدَعَ جَنِينِي، فَاجْلِهِ فِي حَفْنَةِ دُرْعَيَّتِي﴾ (المراثي: 1)

شكل الجنين في الشهر الأول

الوقت

الوقت	النشاط	الفراء
منذ ليلة 7.00	شرب كوب ماء دافئ مع ليون	ترطيب الجسم وتعزيز الهضم
منذ ليلة 8.00	وجبة إفطار متكاملة (بيض، خبز، فواكه)	إنماد الجسم بالغذاء والمعذبات
منذ ليلة 10.00	التشبّط لفترة النوبة وعليه النوم	تحفيظ النوبة الندية وعليه النوم
مساء 1.00	وجبة غداء غنية بالبروتين والدهون	تحمية الأداء والذين يمارسون المسؤولية
مساء 4.00	تمارين عدد خمسة لـ برونا	تحفيظ الظهر والاسترخاء
مساء 7.00	وجبة عشاء خفيفة (برادني، قمر، مكسرات)	تحسين المهمام وتجنب المغصومة
مساء 9.00	كره حليب دافئ قبل النوم	ائزز الظهر بمدحبيه والراحة

المuran

الطب

العنوان

العنوان

العنوان

العنوان

رجوع

Figure 17 Pregnant Page



7.7 Birth Page

هافن انضم إلينا

مرحلة الولادة

(فأخذها المقاضن إلى جزء التخلية قالت يا ليني متْ قيل هذا وكتُبْ تسبنا)

التحضير للولادة

تحضيرك للولادة ساعدك تتجاوزي التوتر وتعيشي اللحظة بسلام، تأكدي من تجهيز حقبة المستشفى، معرفة إشارات الطلاق، والتمارين التنفسية التي يبساعدك ترتاحي أثناء الولادة.

- تأكدي من تجهيز حقبة الولادة التي تحتوي على جميع المستلزمات الضوروية للي ولطملي.
- تعلم إشارات الطلاق: مثل التقلصات المتقطعة التي تصبح أقوى وأقرب من بعضها.
- قومي بتمارين التنفس لتخفيض التوتر مثل التنفس العميق وتمرين التنفس المنظم.
- اعرفني خياراتك في المستشفى، مثل اختبار مراكز الولادة أو الولادة الطبيعية أو القصيرة.
- تحدى مع طببك حول خطة الولادة: هل تتجاهلين إلى المساعدة الطبية، مثل الإبرة الشوكية أو تخفيض الألم؟

[اقرئي المزيد](#)

[تحضير حقبة الولادة](#)

مراحل الولادة

الولادة تمر بعدة مراحل: الطلاق، توسيع عنق الرحم، خروج الطفل، وخروج المشيمة. معرفة هاي المراحل بتخليك تفهمي جسمك أكثر وتواكبي التطورات بكل هدوء.

- المرحلة الأولى: تبدأ من أول تقلصات الطلاق حتى فتح عنق الرحم بالكامل.
- في هذه المرحلة، تستشعرين بألم متقطع، وتحاججين للراحة والتهدئة.
- المرحلة الثانية: عندما يتم فتح عنق الرحم بالكامل، بينما الطلاق بالخروج من الرحم.
- من الرحم، تستشعرين بألم مكثف، ولكنها مرحلة صبرية.
- المرحلة الثالثة: خروج المشيمة، هذه مباشرة.
- المرحلة تحدث بعد ولادة الطفل مباشرة، تستغرق وقتاً أقصر وتكون غالباً أقل ألم.

[اقرئي المزيد](#)

نصائح ذهبية للولادة

حافظي على هدوئك، تنفسي بعمق، واستعيني بشريكك أو الداعم الخاص في عزة الولادة، لا تنسى تواصلـي مع الفريق الطبي وعبرـي عن احـتـياـتكـاتـكـ.

- احرجـيـ علىـ الـراـحةـ النـفـسـيـ،ـ فالـجـهـادـ قدـ يؤـثـرـ عـلـىـ طـاثـنـكـ أـنـثـاءـ الـولـادـةـ.
- الـتـامـارـينـ النـفـسـيـةـ مـهمـةـ لـتـخفـيفـ.
- الـآـلـمـ،ـ جـرـبـ التـنـفـسـ العـمـيقـ لـتـقلـيلـ.
- الـتـوـرـ.
- اسـتـعـدـيـ لـمـجمـوعـةـ مـنـ الـخـارـاتـ.
- الـولـادـةـ الـطـبـيـعـيـةـ،ـ الـقـبـصـيـرـيـةـ،ـ أوـ الـإـرـةـ.
- اطـلـبـيـ الـمسـاعـدةـ مـنـ طـبـبـكـ أوـ.
- مـمـرـضـةـ الـتـدـبـيرـ لـوـكـتـ بـحـاجـةـ.
- لـمـسـاعـدـةـ لـتـخفـيفـ الـآـلـمـ.
- تـعـرـفـيـ عـلـىـ طـرـيـقـ "ـمـخـطـطـ الـولـادـةـ".
- لـمـسـاعـدـكـ عـلـىـ اـخـتـارـ الـحـارـاتـ الـيـخـيـةـ.

[اقرئي المزيد](#)

نصائح ذهبية للتغذية بعد الولادة

أكثرـيـ مـنـ شـرـبـ المـاءـ لـحـفـاظـ عـلـىـ تـرـطـيبـ الـجـسـمـ حـاصـةـ أـنـثـاءـ الرـضـاعـةـ.

- تـنـاوـلـيـ وجـيـاتـ مـتـواـزـنةـ تـحـتـويـ عـلـىـ بـرـوتـينـ،ـ الـأـلـيـافـ،ـ الـفـيـتـامـينـاتـ.
- احـتـفـيـ بـالـكـالـكـسـيـلوـمـ لـدـعـمـ صـحةـ الـعـطـامـ بـعـدـ الـولـادـةـ.
- أـكـثـرـيـ مـنـ الـخـاصـرـ وـالـفـواـكهـ.
- تـعـوـيـصـ الـفـيـتـامـينـاتـ وـالـمـعـادـنـ.
- أـضـيـفـيـ الـمـكـبـرـاتـ الصـحـيـةـ مـثـلـ.
- الـلـوـزـ وـالـجـوـرـ لـرـفعـ مـسـتـوىـ الـطـاـقةـ.
- قـلـلـيـ مـنـ الـكـافـيـنـ لـجـنـبـ أيـ تـأـثـيرـ.
- عـلـىـ الـطـفـلـ أـنـثـاءـ الرـضـاعـةـ.



الولادة الطبيعية الولادة المائية الولادة القصيرة ابرة الظهر

الولادة الطبيعية هي العملية التي يحدث فيها خروج الطفل من رحم الأم عبر قنات الولادة بدون أي تدخل جراحي، حيث يتم ذلك بشكل طبيعي خلال المخاض.

أسباب اختيار الولادة الطبيعية

- الرغبة في تجربة الولادة بشكل طبيعي.
- قليل من المخاطر الصحية بالنسبة للأم والطفل.
- أفضل استعادة بعد الولادة.
- التقليل من مدة الإقامة في المستشفى.
- تجربة الولادة الفريدة.

مراحل الولادة الطبيعية

- المرحلة الأولى: التقاصات.
- المرحلة الثانية: خروج الطفل.
- المرحلة الثالثة: خروج المشيمة.

فوائد ومخاطر الولادة الطبيعية

فوائد	مخاطر
تعزيز الروابط بين الأم والطفل.	قد تواجه بعض الأمهات صعوبات أثناء المخاض.
التقليل من الألم بعد الولادة.	احتمالية تمزق الأنسجة أو نزيف.

مقاطع فيديو وريلاز اختيار الاسم حاسبة تاريخ الولادة

مقاطع الفيديو المتعلقة بالولادة

خطوات التحضير للولادة الطبيعية

من بدء الانقباضات إلى الـ...

الخوف من الولادة - طب و...

خطوات التحضير للولادة الطبيعية من التعذية إلى التمارين

من بدء الانقباضات إلى اللحظة الأخيرة: ما هي مراحل الولادة الثلاث؟

الخوف من الولادة - طب وصحة - ريم أبو خلف

Figure 18 Birth Page

UI SKETCH

CHAPTER 7

HAVEN



حساب تاريخ الولادة

يستمر الحمل بمعدل 280 يوماً (40 أسبوعاً). من اليوم الأول من آخر دورة شهرية لك (LMP)، ويعتبر اليوم الأول من الدورة الشهرية هو اليوم الأول من الحمل، على الرغم من أنك ربما لم تحملي إلا بعد مرور حوالي أسبوعين (تأخر موعد المenses أسبوعين عن مواعيد الحمل). إن حساب موعد ولادتك ليس علمًا دقيقاً، عدد قليل جداً من النساء يلدن في الواقع في موعد ولادتهن، وعلى الرغم من ضرورة أن يكون لديك فكرة عن موعد ولادة طفلك، فتفوقي طهور العديد من العوامل التي تؤثر على موعد الولادة المنشود. لحساب موعد الولادة التقريري، تحتاجين إلى معرفة اليوم الأول من آخر دورة لك لاستخدام هذه الحاسبة. إذا كنت لا تعرفي ذلك أو كنت غير متأكدة، تحدثي إلى طبيبك.

حواسب المرأة

- حاسبة الدورة الشهرية
- حاسبة الحمل
- حاسبة تاريخ الإخصاب خلال الحمل
- حاسبة تاريخ الولادة المنشودة
- حاسبة التقويم
- حاسبة تاريخ الإخصاب
- حاسبة حجم حملة الصدر

[المزيد](#)

حاسبة تاريخ الولادة

أول يوم في آخر دورة شهرية: النوع

متوسط الوقت بين الدورات: يوم

[احسب](#)

حاسوب قد تهمك:
[احسب إذا كان وزنك مناسب لطريقك](#)
[احسب عمرك](#)
[احسب إذا جرب عليك الرakaة](#)
[حاسبة الدورة الشهرية](#)

وصف حاسبة تاريخ الولادة: [^](#)

تقدير تاريخ الاستحقاق

Figure 18 Birth Calculator Page

اسماء عربية

دليل اسماء العرب ووصفتها ومعاناتها

- عرض جميع الأقسام

- اسماء اسلامية (39)
- اسماء الإناث (209)
- اسماء الذكور (166)
- اسماء أئمّة (10)
- اسماء حديثة (73)
- اسماء خليجية (6)
- اسماء سعودية (3)
- اسماء عربية (116)
- اسماء غير عربية (51)
- اسماء قديمة (33)
- اسماء كوبية (2)
- اسماء مصرية (3)

عدد اسماء بالدليل 375 اسم

Figure 19 Arabic Names Page

65

UI SKETCH

CHAPTER 7

HAVEN

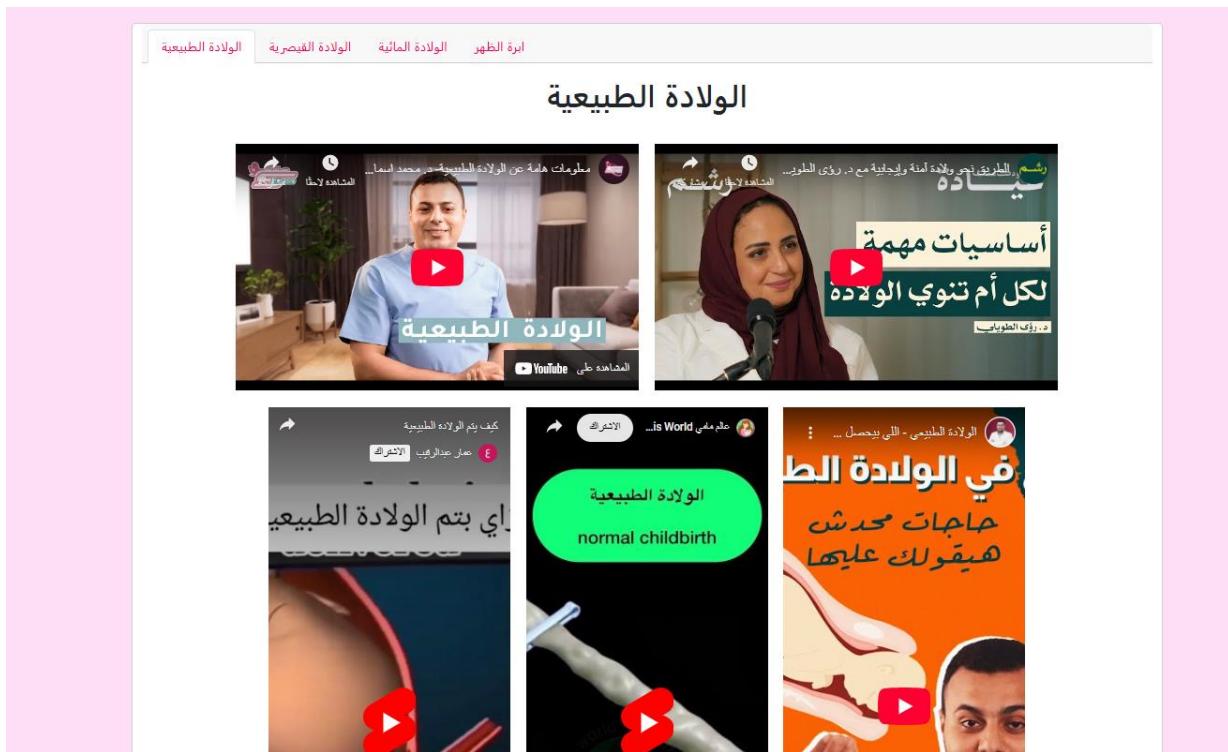


Figure 20 Reels And Videos Page

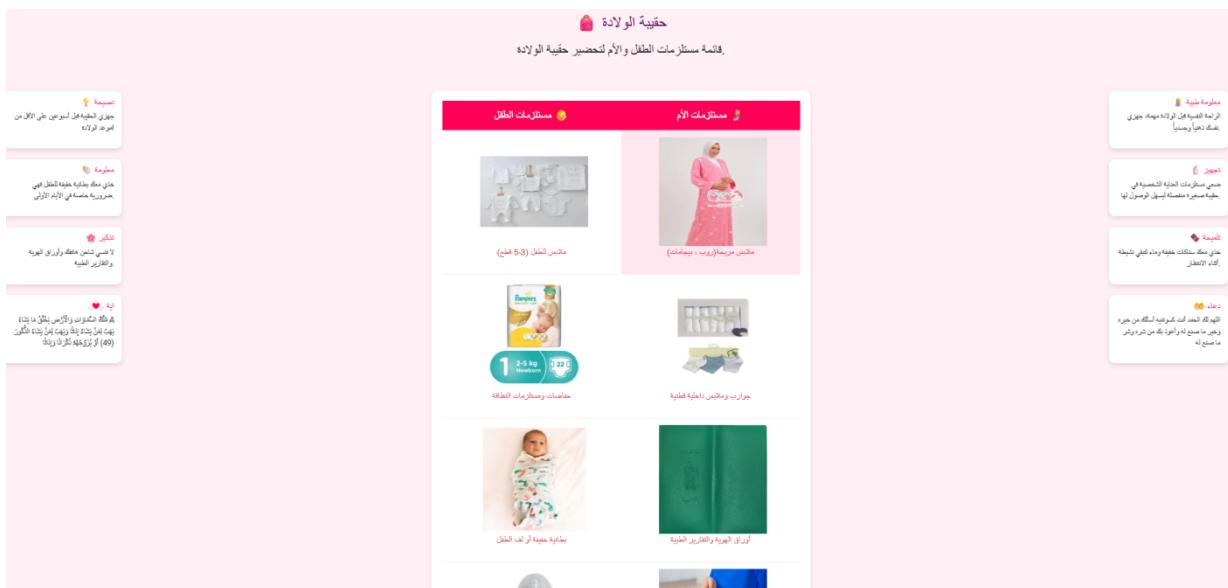


Figure 21 Bag Page



7.8 Design a page year of a child's life

الضم هنا

أجمل لحظات السنة الأولى

السنة الأولى من حياة الطفل مليئة بالتحديات والاكتشافات. تعرّفي على أهم مراحل النمو، التغذية، والنصائح للعناية بطفلك.

مراحل نمو الطفل

من الابتسامة الأولى إلى أول خطوة، اكتشفي كيف يتطور طفلك خلال عامه الأول.

[اقرأ المزيد](#)

نصائح العناية

أفضل الممارسات للعناية بيترة الطفل، التغذية الصحيحة، ونوم هادئ، ومربي.

[اكتشف المزيد](#)

تطعيمات الطفل

جدول زمني للتطعيمات الأساسية لطفلك، تبيهات تلقائية للأهل عند اقتراب موعد التطعيم.

[معرفة المزيد](#)

اصوات الطفل

باستخدام الذكاء الاصطناعي ستمكتي من معرفة سبب ركاء طفلك واحتياجه.

[جريدة الان](#)

مهارات الجلوس

تعتبر مرحلة الجلوس واحدةً من أهم مراحل النطوير الحركي لدى الطفل، فهي تأتي بين الجلوس والمشي ويبدأ فيها الطفل بالحركة من مكان إلى آخر بمفرده، ويمكن أن يبدأ الأطفال بالجلوس عند بلوغهم 6 أو 7 أشهر وأحياناً حتى سن 9 أشهر، مع العلم أن طريقة الجلوس قد تختلف من طفل إلى آخر.

التسنيين والعنابة بالأسنان

أفركي اللثة المؤلمة لطفلك بطفلاً بإصبعك أعيط طفلك حلقة التنسين - إما من المطاط الناعم، أو من النوع البلاستيكى الذي يمكن حفظه في الثلاجة إذا كنت تعتقد أن طفلك يعاني من الألم، ففكر في إعطاء الأسيتامينوفين، مثل بانadol للأطفال، حسب توجيهات

طبيب الأطفال

اختر الطبيب القريب لكي فقط اختاري مدربتك وتخصص طبيب اطفال

[اخبار الطبيب](#)

UI SKETCH

CHAPTER 7

HAVEN

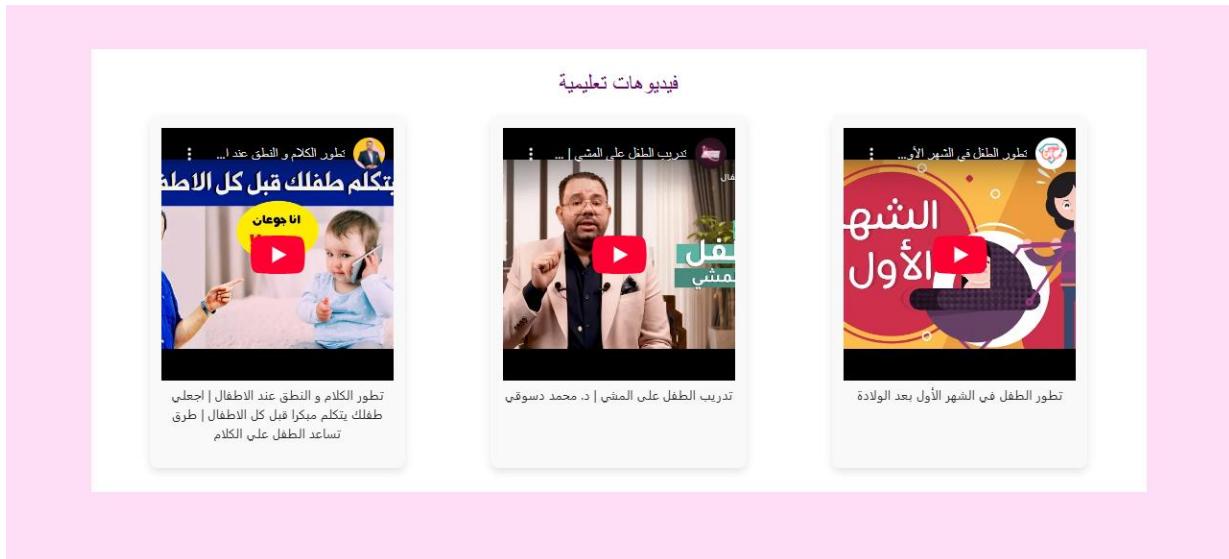


Figure 22 first year of a child's life

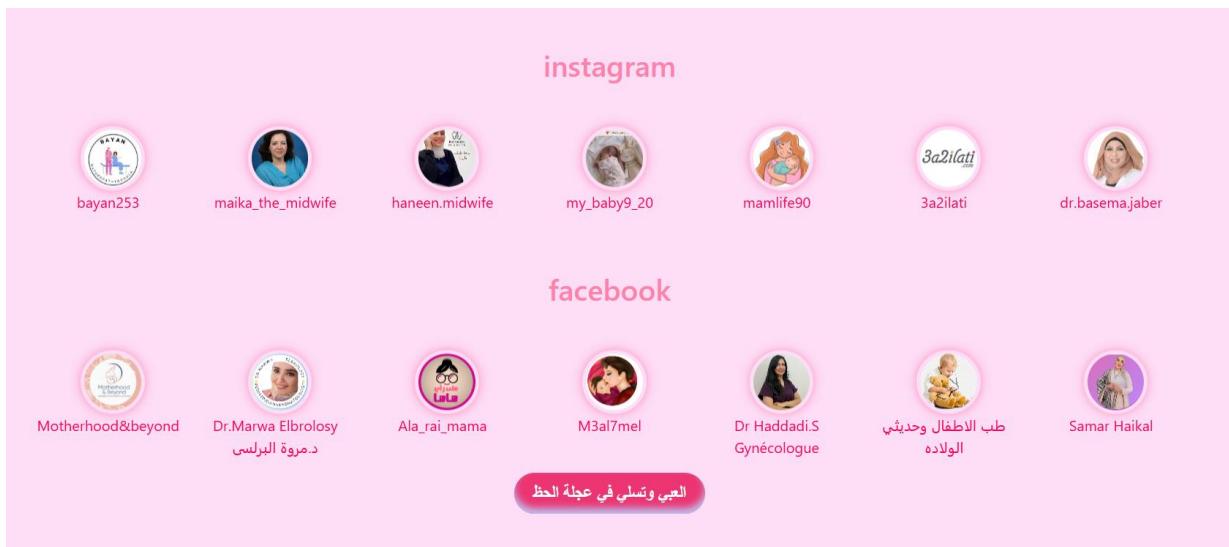


Figure 23 Facebook & Instagram Channal



نـ ٦ سجل التطعيمات في فلسطين

الولادة - شلل الأطفال الفموي (OPV0) عند الولادة	الولادة - لقاح السل (BCG) عند الولادة
6 أسابيع - شلل الأطفال الفموي (OPV1) عمر 6 أسابيع	6 أسابيع - اللقاح الخماسي (Penta1) عمر 6 أسابيع
10 أسابيع - شلل الأطفال الفموي (OPV2) عمر 10 أسابيع	10 أسابيع - اللقاح الخماسي (Penta2) عمر 10 أسابيع
14 أسبوع - شلل الأطفال الفموي (OPV3) عمر 14 أسبوع	14 أسبوع - اللقاح الخماسي (Penta3) عمر 14 أسبوع
15 شهر - الجرعة الثانية من الحصبة (Measles2) عمر 15 شهر	9 أشهر - لقاح الحصبة (Measles1) عمر 9 أشهر

العدة للسنة الأولى

Figure 24 Child Vaccinations Page

مراحل نمو الطفل في السنة الأولى

اكتشف كيف ينمو مولوكك شهرياً بعد شهور، وما التطورات التي يمكنها أن تشهدها في عامه الأول.

الشهر الأول يبدأ الطفل في التعرف على الأصوات والغروب، ويدرك رأسه قبلًا. الوزن: 4.5 - 3.2 كجم الطول: 55 - 50 سم	الشهر الثاني يبدأ الطفل في الانشاد والتفاعل مع الأصوات، كما يزيد حركة في حركة الرأس. الوزن: 4.5 - 4 كجم الطول: 58 - 53 سم	الشهر الثالث يسقطن الطفل للصحن الآشيه، ويريد في إصدار أصوات تدبرية. الوزن: 5 - 6 كجم الطول: 60 - 55 سم	الشهر الرابع يبدأ الطفل في مدحولة النطاف من طفوه إلى بطنه. إصدار آصوات تدبرية الوزن: 6 - 7 كجم الطول: 65 - 60 سم	الشهر الخامس يسقطن الطفل الجلوس بمساعدة، ويغير الموضع. يشكل الصisel الوزن: 6 - 7 كجم الطول: 68 - 63 سم
الشهر السادس يبدأ الطفل في إصدار صدقات عالية ويرجح له حركة الالتجاء. الوزن: 8 - 9 كجم الطول: 65 - 70 سم	الشهر السابع يسقطن الطفل الجلوس بمساعدة، وينظر إلى الأمام. الوزن: 8.5 - 9 كجم الطول: 70 - 75 سم	الشهر الثامن يسقطن الطفل في الرمح، واستكشاف الماء من جزءه. الوزن: 9 - 10.5 كجم الطول: 73 - 78 سم	الشهر التاسع يسقطن الطفل الوقوف مستنداً إلى الآلات، ويدخل قوق. إصدار آصوات التعلم. الوزن: 10.5 - 11 كجم الطول: 75 - 80 سم	الشهر العاشر يبدأ الطفل في اللعب بين الآلات، ويدخل قوق. كلمات بسيطة الوزن: 11.5 - 12 كجم الطول: 83 - 80 سم
الشهر الحادي عشر يسقطن الطفل الوقوف ووجه الملاطفات، ويفهم بعض المعلومات البسيطة. الوزن: 12.5 - 11 كجم الطول: 87 - 82 سم	الشهر الثاني عشر يبدأ الطفل في المشي أو محاولة المشي، ويتلقى أولى تكتباته. الوزن: 12 - 13 كجم الطول: 80 - 85 سم			

فيديوهات تعليمية

发展阶段

小孩从出生到一岁

Figure 25 Stages Of Child Development Page



7.9 Design a page for the 2-3 year of a child's life

هافن

الصفحة الرئيسية من نحن قوات الخطوات المراحل الفطام الأطباء تصميم البا

تذكري دوماً بانك افضل ام لطفلك

السنة الثانية السنة الثالثة

مرحلة النمو
نصائح العناية
التطورات الحركية
الأنشطة اليومية

Figure 26 "2-3" year of a child's life Page



التطورات الحركية في السنة الثانية



المشي والركض

في السنة الثانية، يبدأ الطفل في تحسين مهاراته الحركية مثل المشي والركض. ستلاحظين أنه أص迫 أكثر قدرة على التحرك بسرعة في جميع الاتجاهات.



القف والتسليق

يبدأ الطفل في تجربة القفز على الأسطح المختلطة مثل الأرائك الصغيرة أو حتى على الأرض. كما يصبح أكثر قدرة على تنسل الألعاب المخصصة للأطفال.



التحكم في اليدين والقدمين

الطفل يبدأ في إظهار مهارات تنسيق اليدين والقدم بشكل أفضل. يمكنه إلقاء الكرة أو اللعب بالأدوات التي تتطلب التنسيق بين اليدين والعينين.



التوانز والتحكم في الحركة

في هذه المرحلة، يتحسن توانز الطفل بشكل كبير، بصبح أكثر قدرة على الوقوف لمدة أطول والمشي بشكل مستقر. بدون الحاجة للدعم.



الأشطة اليومية في السنة الثانية



اللعب الحر

يعتبر اللعب الحر من أهم الأنشطة اليومية في هذه المرحلة. يمكن للطفل اللعب بالألعاب التفاعلية أو بناء الأشيه باستخدام المكعبات.



الأنشطة البدنية

أنشطة مثل المشي أو الركض أو اللعب في الهواء الطلق تعتبر من الأنشطة المهمة التي تساهم في تعزيز اللياقة البدنية للطفل.



الاستراحة والنوم

يحتاج الطفل في هذه المرحلة إلى أوقات من الراحة والنوم العميق من أجل التجدد والنمو السليم. يمكن تحديد أوقات نوم ثابتة خلال اليوم.

تعلم المهارات الجديدة

خلال هذه المرحلة، يبدأ الطفل في تعلم مهارات جديدة مثل استخدام الأدوات بشكل صحيح أو تعلم الحروف والأرقام من خلال الألعاب التعليمية.

Figure 27 "2" year of a child's life Page

UI SKETCH

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The screenshot shows the 'Baby Cry Classifier' application interface. At the top, there is a green notification bar with the text 'Model loaded! Ready to analyze infant cries.' and 'Trained to recognize: belly_pain, burping, discomfort, hungry, tired'. Below this, the main title 'Decode Your Baby's Cries' is displayed in large blue text. A subtitle below it states 'Our AI model analyzes baby cries to help you understand what your baby needs.' On the left side, there is a 'Upload Training Dataset' section with a file input field and a note: 'Dataset should be a zip file containing folders. Each folder name represents a cry type/category, with WAV files inside.' A button labeled 'Train Model' is also present. The background of the page is pink.

The screenshot shows the 'Baby Cry Classifier' application interface. It features two main sections: 'Upload Audio' and 'Live Recording'. The 'Upload Audio' section has a file input field with the path 'bu_donateacry_corpus_cl...540826-1.0-f-26-bu.wav' and a '✓ Analyze' button. The 'Live Recording' section has a 'Start Recording' button. Below these, the 'Analysis Results' section displays the prediction 'burping' with a confidence of 98%. It includes a 'Prediction Probabilities' chart showing high probability for 'burping' and low probabilities for 'hungry' and 'discomfort'. To the right, there is an 'Audio Analysis' section with a waveform plot and a spectrogram plot. The waveform plot shows amplitude over time, and the spectrogram plot shows frequency over time with a color scale from -40 dB to +10 dB.

Figure 28 Baby Cry Classification



Chapter 8: Conclusion

8.1 Conclusion

The project is a website called HEVEN. This website provides assistance to pregnant women, as it contains four sections. The first section is the pregnancy stage, which contains characteristics and features that include this stage.

The second stage is the birth stage and includes all the matters related to childbirth, including doctors' appointments and the things that the woman needs at this stage.

The third stage is the child's stage during the first months to one year of age, as it contains an artificial intelligence system that enables the mother to know what the child wants from the sound of his crying and many other features.

Finally, the child stage in the second and third years, which includes all the features that follow the child's healthy and integrated development.

8.2 Recommendations and Future Vision

To ensure the continuous growth and relevance of the HAVEN platform, the following recommendations for the future vision are proposed:

1. Enhanced AI Integration:

Leverage advanced artificial intelligence to provide personalized support for parents. For instance, implementing AI-driven voice recognition to better understand and address infants' needs.

**1. Global Market Expansion:**

Localize the platform by translating it into multiple languages and tailoring content to diverse cultural contexts. This will allow HAVEN to reach a wider audience and cater to the needs of parents worldwide.

2. Smart Device Integration:

Develop compatibility with wearable devices and smart health monitors to track both maternal and child health. This will enable real-time health insights and alerts for users.

3. Interactive Learning Modules:

Incorporate immersive technologies like augmented reality (AR) and virtual reality (VR) to offer parents interactive educational content. Examples include AR-based tutorials on baby care or VR simulations for prenatal exercises.

4. Community and Social Features:

Foster a stronger sense of community by introducing forums, group discussions, and live Q&A sessions with parenting experts. These features can enhance user engagement and trust.

5. Subscription-Based Model for Sustainability:

Introduce premium subscription plans that offer advanced features, such as one-on-one consultations with professionals or exclusive parenting content. This will ensure a sustainable revenue model for HAVEN.

6. Data-Driven Insights for Growth:

Utilize analytics to study user behavior and preferences. These insights can help refine the platform's services and create targeted solutions for specific parenting challenges.

7. Sustainability and Ethical Development:

Prioritize the ethical use of user data and maintain strict privacy standards. Additionally, focus on sustainable growth strategies that align with global health and wellness goals.



By implementing these recommendations, HAVEN can establish itself as a leading global platform for parenting support, providing innovative, reliable, and user-centric solutions for families.

8.3 Marketing the Havan system

To successfully market the Haven system, a targeted and multi-channel approach will be adopted, focusing on the unique benefits and features of the platform. Below is an outline of strategies to effectively promote the system:

➤ **Identify Target Audience:**

Parents, particularly mothers, in the early stages of pregnancy and child-rearing.
Healthcare professionals, such as doctors and pediatricians, who can recommend the platform to their patients.
Families looking for educational and support resources for parenting.

➤ **Create an Engaging Website:**

A well-designed, user-friendly website will serve as the central hub for information about Haven.
The website will feature product descriptions, testimonials, blog posts, and the benefits of using the system.

➤ **Social Media Marketing:**

Utilize platforms like Facebook, Instagram, Twitter, and TikTok to share engaging content such as parenting tips, user stories, and educational videos.
Partner with influencers or parenting bloggers to expand reach and build credibility.
Create targeted ads focusing on pregnancy and parenting to drive sign-ups.

➤ **Content Marketing:**

Regularly publish blog posts, articles, and videos related to parenting, child health, pregnancy, and development, demonstrating expertise in these areas.

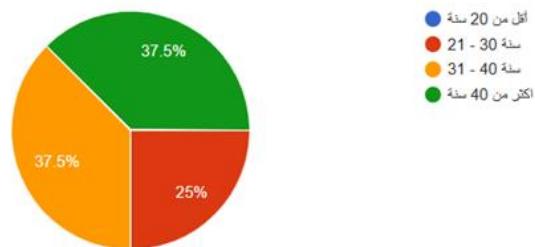


8.4 Haven Survey

[نسخ الرسم البياني](#)

[معلوماتك الشخصية](#)

كم عمرك؟



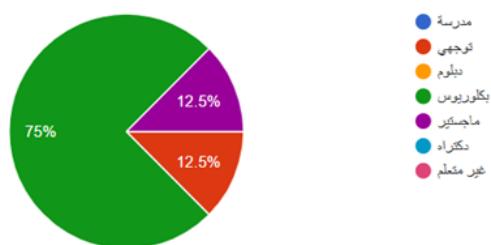
[نسخ الرسم البياني](#)

أنت:



[نسخ الرسم البياني](#)

المستوى التعليمي



CONCLUSION

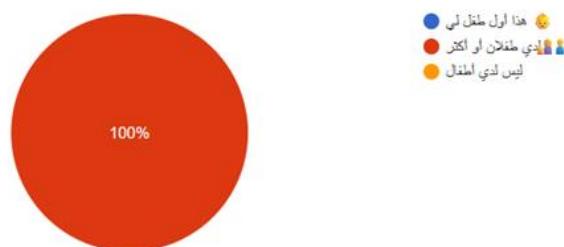
CHAPTER 8

HAVEN



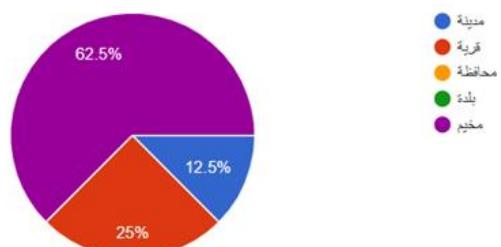
نسخ الرسم البياني

كم عدد أطفالك؟



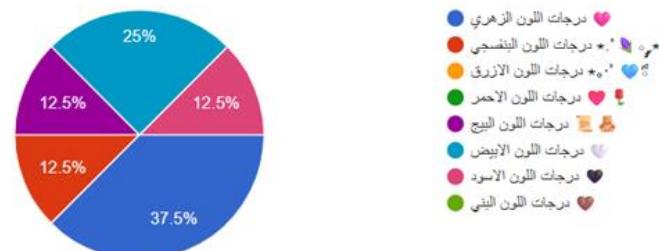
نسخ الرسم البياني

أين تعيش؟



نسخ الرسم البياني

ما هي الألوان التي تفضلها في مواقع الأمهات?



CONCLUSION

CHAPTER 8

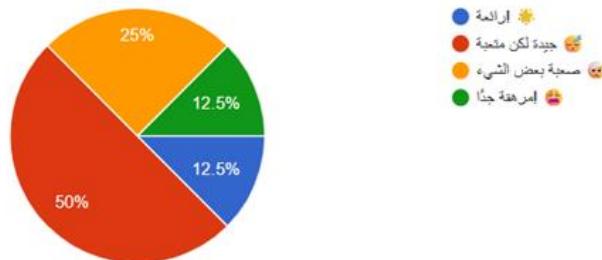
HAVEN



[نسخ الرسم البياني](#)

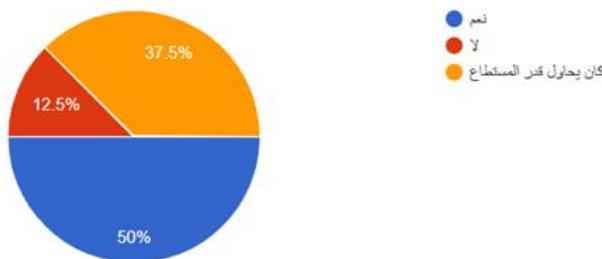
تجربتك أثناء الحمل

كيف كانت رحلتك مع الحمل؟



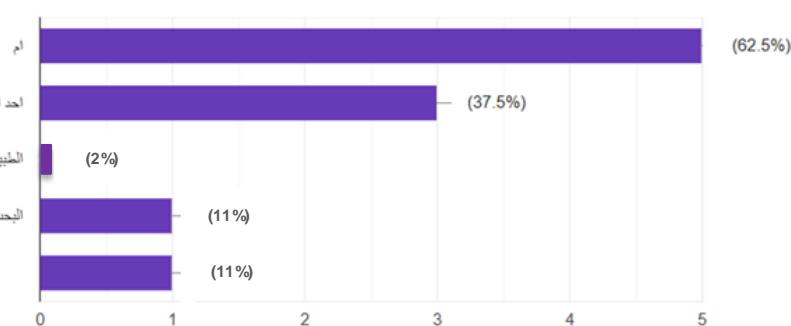
[نسخ الرسم البياني](#)

هل كان للزوج دور فعال



[نسخ الرسم البياني](#)

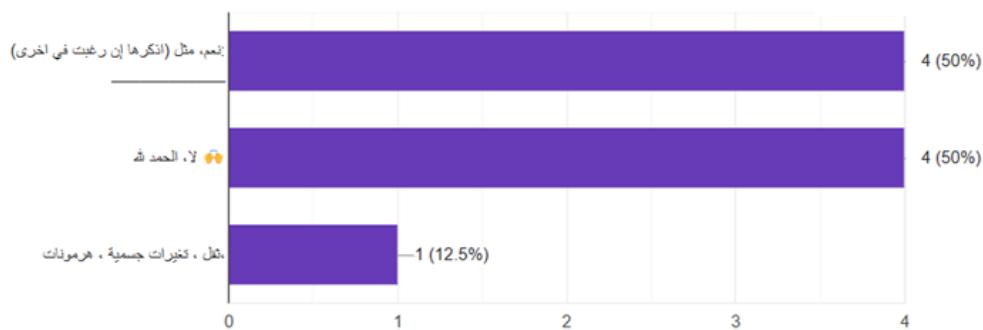
عند حاجتك للنصيحة من احد فلن تلجى





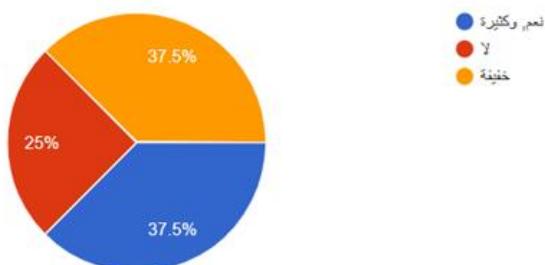
نسخ الرسم البياني

هل واجهت أي تحديات صحية أثناء الحمل؟



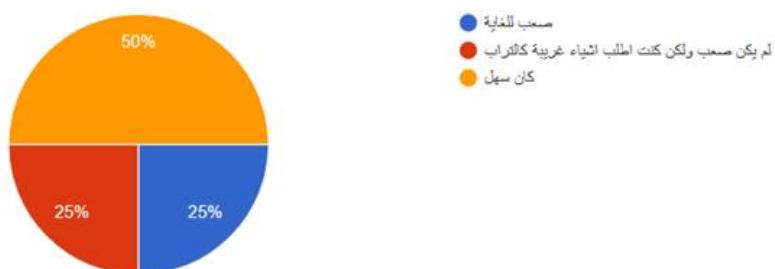
نسخ الرسم البياني

هل عانيتني من تقلبات مزاجية في الحمل؟



نسخ الرسم البياني

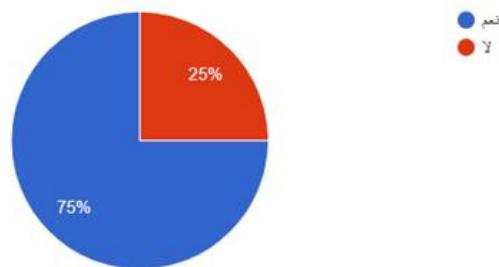
هل كان وحامك صعب؟





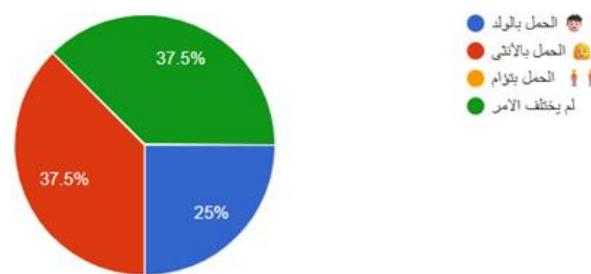
نسخ الرسم البياني

اذا كان لديك اكثر من تجربة حمل هل اختلف الحمل الاول عن الثاني ؟ (اختياري)



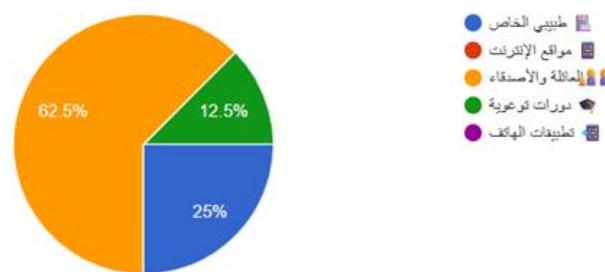
نسخ الرسم البياني

اي تجربة كانت الأسهل حمل بولد ام بانثى ؟



نسخ الرسم البياني

اين كنت تحصلين على معلومات عن الحمل؟



CONCLUSION

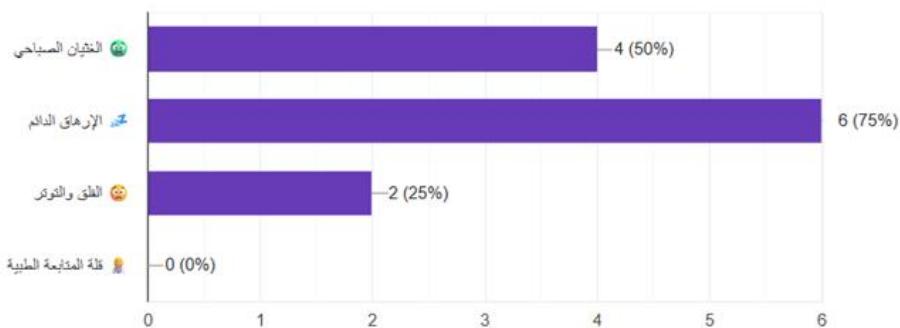
CHAPTER 8

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[نسخ الرسم البياني](#)

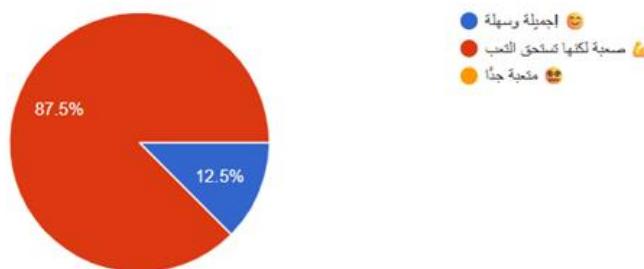
ما أكبر تحدي واجهته خلال الحمل؟



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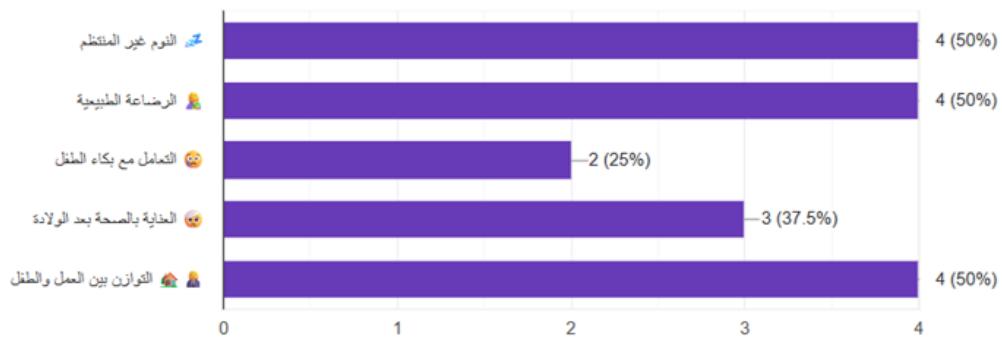
حياة ما بعد الولادة

كيف كانت الأسابيع الأولى مع طفلك؟



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ما التحدي الأكبر الذي واجهته بعد الولادة؟



CONCLUSION

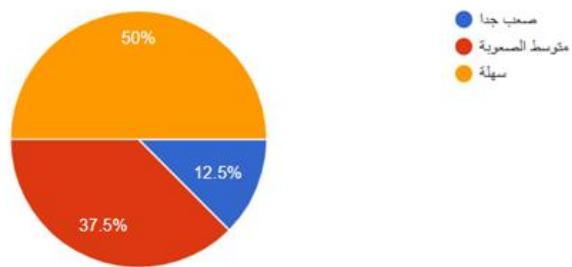
CHAPTER 8

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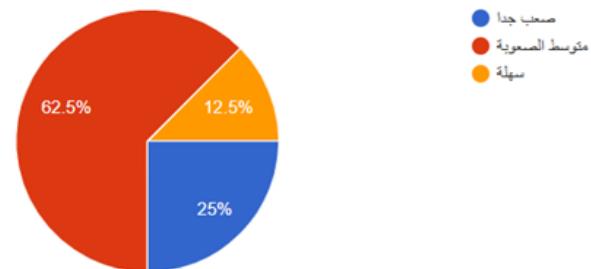
نسخ الرسم البياني

قيمي مدى صعوبة الرضاعة الطبيعية؟



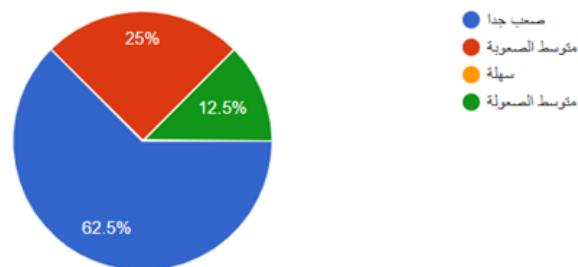
نسخ الرسم البياني

قيمي مدى صعوبة الفطام؟



نسخ الرسم البياني

قيمي مدى صعوبة مرحلة التسنين للطفل؟





ابرز الصعوبات ومشاكل التي واجهت طفلك في السنة 3-1

الأكل الفطام سرعة المرض

لم تواجه مشاكل

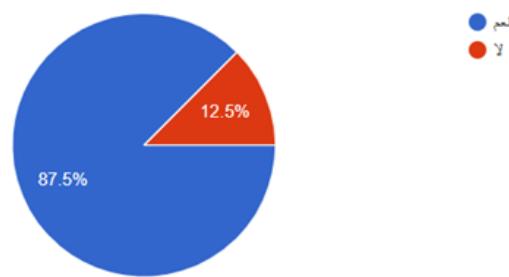
مزاج الطفل، النمو السريع ، التقلبات المزاجية للطفل، الموازنة بين العمل والطفل

التعامل في مرحلة المشي، تسليين الطواحين

الاسنان

نسخ الرسم البياني

في كافة المراحل هل كان الأطباء متفهمين ومتعاونين ويدونون دعم كافي



اذا كنت تفضلين طبيب معين وتنصحي فيه اذكري

لم اذهب الى طبيب ولدت في مستشفى الحكومي

علاء كاظم ، نابلس

الدكتورة عبير جادلله

////

CONCLUSION

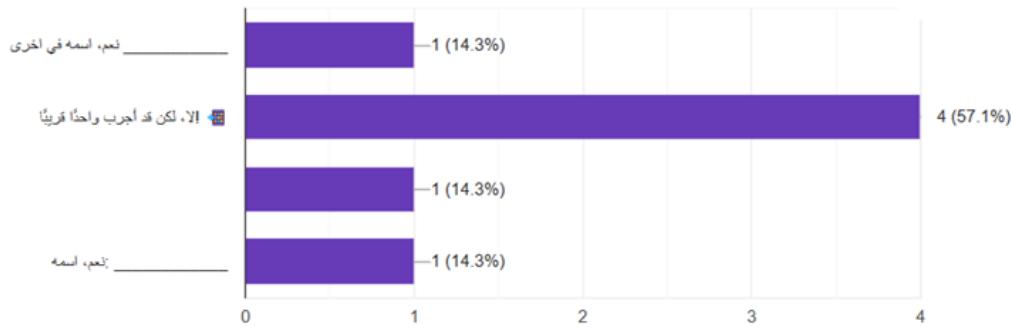
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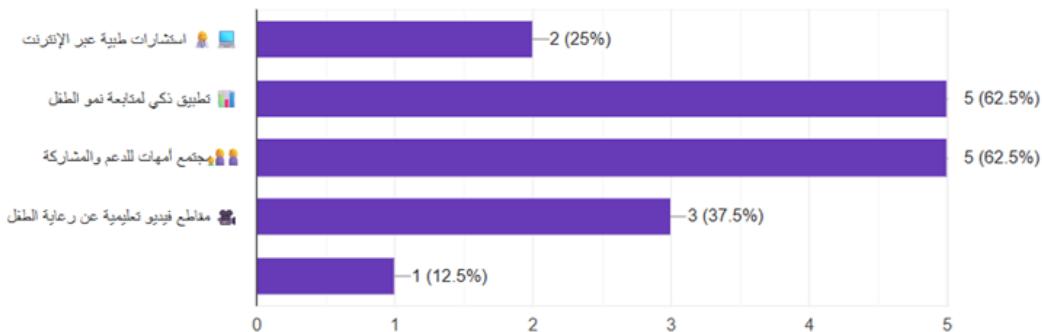
هل تستخدم أي تطبيق لمتابعة صحة طفلك؟



نسخ الرسم البياني

كيف يمكننا مساعدتك؟

ما الذي تتنى أن يكون متاحاً لدعمك خلال الحمل ورعاية طفلك؟



هل لديك أي اقتراحات لجعل تجربة الأمهات والأباء أسهل؟

لا

رسالة شخص بخبرة،

التعاون المشترك بين الزوجة والزوج في متابعة البرامج الحديثة الخاصة في تربية الطفل

///

CONCLUSION

CHAPTER 8

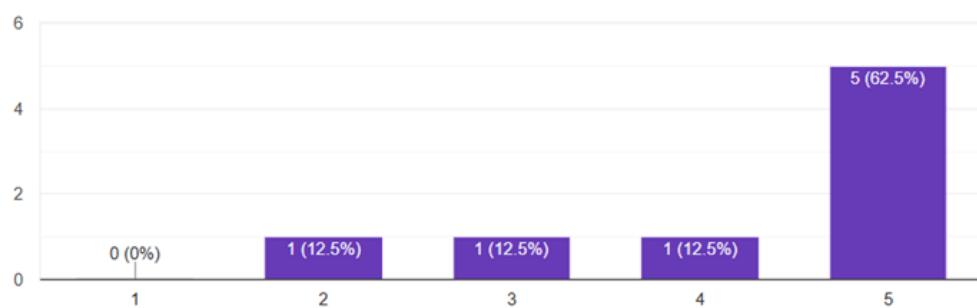
HAVEN



نسخ الرسم البياني

شكراً للمشاركتك! أنت تساعدنا في تطوير تجربة أفضل للأمهات والأباء في رحلتهم مع أطفالهم. ❤️

Average rating (4.25)





Chapter 9: References

9.1 References

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