

**VIVEKANAND EDUCATION SOCIETY'S INSTITUTE OF
TECHNOLOGY**
(An Autonomous Institute Affiliated to University of Mumbai)
Department of Computer Engineering



Project Report on

“Sakhi” - A Woman’s Friend

Submitted in partial fulfillment of the requirements of the
degree

**BACHELOR OF ENGINEERING IN COMPUTER
ENGINEERING**

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**University of Mumbai
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**VIVEKANAND EDUCATION SOCIETY'S INSTITUTE OF
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CERTIFICATE

This is to certify that the Mini Project entitled “**Sakhi**” is a bonafide work of
**Anchal Motwani (32), Darpan Moorpani (42), Karan
Kewalramani (35), Nupur Mirani (46)** submitted to the University of
Mumbai in partial fulfillment of the requirement for the award of the degree of
“**Bachelor of Engineering**” in “**Computer Engineering**” .

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Mini Project Approval

This Mini Project entitled “**Sakhi**” by **Anchal Motwani (32), Darpan Moorpani (42), Karan Kewalramani (35), Nupur Mirani (46)** is approved for the degree of **Bachelor of Engineering in Computer Engineering.**

Examiners

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(Internal Examiner Name & Sign)

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(External Examiner name & Sign)

Date:

Place:

Declaration

We declare that this written submission represents our ideas in our own words and where others' ideas or words have been included, we have adequately cited and referenced the original sources. We also declare that we have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in our submission. We understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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Abstract

“SAKHI” is a dedicated online platform designed to cater to the multifaceted needs of women, offering invaluable resources related to safety, rights, and health. With a mission to empower women with knowledge and support, the platform features a robust section on women's safety laws and rights, complete with accessible information and helpline numbers to ensure immediate assistance when needed.

One of the core components of SAKHI is its comprehensive health section, aimed at providing women with a wealth of information and support for various health issues. From reproductive health to mental well-being, users can find expert-curated articles, resources, and tools to navigate their health journey with confidence. A highlight of this section is the intuitive period tracking feature, which enables users to monitor their menstrual cycles, predict upcoming periods, and receive diet suggestions tailored to their menstrual phases.

SAKHI goes beyond mere information dissemination by incorporating interactive elements such as graphs and charts, allowing users to visualize their menstrual data and understand patterns over time. By empowering women with knowledge, resources, and support, SAKHI strives to foster a community where women can take control of their safety, rights, and health, ultimately promoting their overall well-being and empowerment.

1. Introduction

1.1 Introduction:

SAKHI is a pioneering online platform specifically designed to address the diverse needs of women. Recognizing the multifaceted challenges women face, SAKHI's mission is to empower them through comprehensive knowledge and unwavering support.

Empowering Features:

- **Safety and Rights Knowledge Base:** This section functions as a robust and accessible knowledge base, meticulously curated with information pertaining to women's safety laws and rights. It presents clear and concise explanations of relevant legislation, ensuring users grasp the legal landscape that protects them. Furthermore, readily available helpline numbers are strategically placed throughout the section, empowering women to seek immediate assistance if necessary.
- **Expert-Driven Health and Wellness Hub:** Recognizing the importance of holistic well-being, SAKHI dedicates a substantial section to health and wellness. This section serves as a comprehensive hub, featuring a wealth of information meticulously curated by healthcare professionals. It encompasses a diverse range of topics, addressing both physical and mental health concerns that women may encounter throughout their lives.
- **Personalized Menstrual Cycle Tracking:** SAKHI transcends the realm of mere information dissemination. This innovative tool empowers women to gain invaluable insights into their own bodies. Additionally, the platform leverages this data to generate dietary recommendations, further promoting women's well-being. Furthermore, SAKHI offers insightful visualizations in the form of graphs and charts, enabling users to observe patterns and trends in their menstrual cycles over time. This fosters a deeper understanding of their bodies and empowers them to make informed choices regarding their health.

1.2 Motivation:

Motivations for SAKHI's Creation:

- **Bridging the Knowledge Gap:** Women often face challenges in accessing reliable information on safety, health (particularly reproductive health), and their legal rights. SAKHI could be motivated by a desire to bridge this gap and empower women with the knowledge they need to make informed decisions about their lives.
- **Promoting Women's Empowerment:** The platform's focus on empowering women suggests a motivation to dismantle societal barriers that may hinder women's autonomy and well-being. By providing tools and knowledge, SAKHI could be aiming to create a space where women feel confident in asserting their rights and taking control of their lives.
- **Responding to Unmet Needs:** The platform's features might be tailored to address specific challenges faced by women in a particular region or community. For example, if a community has a high rate of gender-based violence, the safety and rights section might be particularly robust.
- **Enhancing Women's Self-Sufficiency:** SAKHI's emphasis on personal knowledge and health tracking tools suggests a motivation to equip women with the resources they need to independently manage their safety, health concerns, and overall well-being. This focus on self-sufficiency could be driven by a desire to empower women without relying solely on external support networks.

By focusing on these motivations, we see SAKHI as a platform that strives to empower women through independent knowledge acquisition and self-management tools, ultimately aiming to improve their overall well-being and ability to navigate life's challenges.

1.3 Problem Definition:

Women often face significant challenges in accessing reliable and comprehensive information on critical issues that impact their lives. These issues can be broadly categorized into three main areas:

1. **Safety and Rights:** Many women lack a clear understanding of the laws and regulations that protect their safety and rights. This can leave them vulnerable to abuse, exploitation, and even violence.
2. **Health and Wellness:** Accessing accurate and up-to-date health information, particularly regarding reproductive health, can be difficult for women. This lack of knowledge can negatively impact their physical and mental well-being.
3. **Personalized Health Management:** Women often lack tools and resources to effectively manage their personal health, including tracking menstrual cycles and understanding their bodies' unique cycles and needs.

These knowledge gaps can lead to a number of negative consequences, including:

- Increased vulnerability to violence and abuse
- Uninformed decision-making regarding health and well-being
- Difficulty navigating legal systems and asserting rights

SAKHI is designed to address this problem by providing women with a centralized platform for accessing critical information and resources. This platform empowers women through knowledge and self-management tools, ultimately aiming to improve their overall well-being and ability to navigate life's challenges.

1.4 Existing Systems:

We referred to many existing applications based on women's safety and wellness. Here are some apps and their elaborations:

Women Safety App: This app is based on people's safety, as a lot of women need to travel alone or work late at night sometimes. Considering this, the app aims to make India a much safer place for women to work and live with utmost safety and no fear.

Application Features

- Share Location
- Send Message Alert
- Send WhatsApp Message
- Application works without internet
- Send Message Alert with phoneshake

I'm Safe-Women Safety App:

Observed the following features in the app:

Track Me - This feature provides added safety and security when you are on a morning walk or during your everyday commutes.

SOS - SOS alerts your trusted contacts, warning them that you are in danger. During an SOS event, the app captures images, audio recordings and location details.

Helpline Numbers - This feature lets you quickly access emergency services, with pre-programmed helpline numbers available in case of an emergency.

Fake Call - This feature allows you to simulate a phone call, providing a quick and easy way to escape awkward or uncomfortable situations.

Anonymous Record - This feature allows you to capture audio, photos and location details without alerting others. Users can anonymously raise complaints to organizations and seek solutions for the internal issues they face.

Org Help - This feature allows users to raise concerns to their organization to get their doubts and queries clarified.

These were the laws and safety related apps. Further we will see period tracking and reproductive health related apps that we referred.

Flo - Flo is a popular health app specifically designed for women. Here's a breakdown of some key aspects of Flo:

- Period Tracking: Flo allows users to log their menstrual cycles, including start and end dates, flow intensity, and other relevant symptoms. This data can be used to predict future periods, identify patterns, and gain insights into overall menstrual health.
- Ovulation Prediction: Based on cycle data, Flo can predict ovulation windows, which can be helpful for women trying to conceive or avoid pregnancy naturally.
- Fertility Insights: Flo provides personalized insights into fertility based on cycle data. This can be valuable for women trying to get pregnant or understand their fertile phases.
- Health and Wellness Tracking: In addition to menstruation, Flo allows users to track other health factors like mood swings, sleep patterns, physical activity, and water intake. By observing how these factors relate to your cycle, you can gain a more holistic understanding of your well-being.
- Educational Content: Flo offers a library of articles and resources on various women's health topics, including menstrual health, sex education, nutrition, and mental well-being.
- Community (Optional): Some versions of Flo may offer a community forum where users can connect, share experiences, and ask questions about women's health topics.

Clue - Clue is a popular app designed to help you understand your menstrual cycle and reproductive health. Founded by women and backed by science, it prioritizes user privacy and doesn't sell your data.

The app tracks your period, ovulation, and fertile window, offering personalized predictions based on your cycle history. You can also track over 100 symptoms like cramps, mood swings, and sleep patterns to identify connections with your cycle phases. This can help you anticipate and manage PMS or plan activities around your energy levels.

Clue is useful whether you're trying to get pregnant, prevent pregnancy naturally, or simply want to be more in tune with your body. It provides educational resources and doesn't replace professional medical advice. With millions of users worldwide, Clue is a trusted tool for understanding your cycle and taking charge of your reproductive health.

1.5 Lacuna in Existing System:

There seems to be a gap in the current system where no single application effectively combines legal resources and a wellness hub. Existing legal information platforms tend to be text-heavy and lack user-friendly interfaces, making it difficult for people to find what they need. On the other hand, wellness apps often focus solely on fitness or mental well-being, neglecting the legal aspects that can significantly impact a person's life.

This disconnect creates an opportunity for a comprehensive solution that empowers users with both legal knowledge and self-care tools. Our proposed application has the potential to bridge this gap by offering a one-stop shop for legal guidance and wellness resources, promoting a holistic approach to well-being.

1.6 Relevance of the project:

Addressing a Gap in User Needs:

- **Current Disparity:** Existing legal information platforms are often complex and inaccessible, while wellness apps lack legal resources. This creates a gap for users seeking both legal guidance and tools for overall well-being.
- **Holistic Approach:** Our project fills this gap by offering a one-stop shop for legal and wellness resources. This promotes a more comprehensive approach to well-being, acknowledging the interconnectedness of legal issues and personal well-being.

Potential Benefits for Users:

- **Empowerment:** By providing easy-to-understand legal information alongside wellness tools, our app empowers users to navigate legal matters with more confidence and manage stress related to them.
- **Improved Well-being:** The combined focus on legal knowledge and self-care can lead to a more holistic approach to well-being, allowing users to address both personal and legal aspects impacting their lives.

2. Literature Survey

A. Brief Overview of Literature Survey

Objective: Identify the lacuna in existing legal information and wellness applications to develop Project Sakhi, a comprehensive solution integrating both.

Focus Areas:

- Legal Information Platforms: Evaluate existing legal information systems for accessibility, user-friendliness, and comprehensiveness. Identify challenges users face in finding the legal information they need.
- Wellness Apps: Analyze the landscape of wellness applications, noting their strengths and weaknesses in addressing legal issues that can impact well-being.

Expected Outcomes:

- Gap Identification: Pinpoint the disconnect between legal information platforms and wellness apps. Highlight the lack of a user-friendly, one-stop shop for both legal guidance and self-care tools.
- User Needs: Understand how current systems fail to meet user needs for comprehensive well-being resources that address both legal and personal aspects.

Literature Sources:

- Research papers and articles on legal information accessibility and usability.
- Studies on the design and functionality of wellness applications.
- Reports on the integration of legal and wellness services.

Expected Benefits:

The literature survey will provide a strong foundation for Project Sakhi's development by:

- Validating the identified gap in existing systems.
- Demonstrating the need for a combined legal and wellness resource.
- Informing the design of user-friendly features within Project Sakhi.

B.Related Works

1. Legal Resources:

- International Law: Drawing from research on legal frameworks (paper 1), Project Sakhi provides accessible summaries of international conventions and laws promoting women's rights. This equips users with knowledge to navigate legal issues.
- Empowerment Through Knowledge: The legal resource section ensures information on women's health rights and access to healthcare services (paper 4). This empowers women to understand legal options when facing discrimination or healthcare barriers.

2. Wellness Support:

- Holistic Approach: Informed by research on women's health (paper 3), Project Sakhi goes beyond just period tracking (paper 2). It offers resources on broader health concerns like nutrition and mental health awareness.
- Mind-Body Connection: The app integrates the concept of holistic well-being (paper 5) by potentially connecting legal issues with potential health impacts (e.g., domestic violence and mental health). This encourages users to view legal knowledge and wellness tools as complementary aspects of their overall well-being.

2.1 Research Papers

1. International Women's Rights Convention. (2019). "Advancing Women's Rights Globally: A Comprehensive Review."

Abstract: This article provides an in-depth examination of women's empowerment within the realm of international law, delving into its philosophical underpinnings, legal structures, and real-world impacts. Utilizing qualitative inquiry and academic references, it investigates advancements, obstacles, and remedies, highlighting the pivotal significance of global legal mechanisms in promoting gender parity and upholding the rights of women globally.

Inference: a) The article argues that international law plays a crucial role in empowering women. It likely examines how legal frameworks and mechanisms can address gender inequality and promote women's rights on a global scale.

b) The article suggests there is a gap between the ideals and realities of women's empowerment in international law. It might explore the challenges and limitations of existing legal structures, while proposing solutions to achieve true gender parity.

2. Evaluation of Smartphone Menstrual Cycle Tracking Applications Using an Adapted APPLICATIONS Scoring System

Abstract: This study aims to identify smartphone applications for tracking menstrual cycles and assess their accuracy, features, and usability, providing comprehensive insights into their functionality and effectiveness.

Inference: The paper suggests there is a need for improved menstrual cycle tracking applications. By assessing accuracy, features, and usability, the study aims to identify areas for improvement in these apps. This could involve aspects like prediction algorithms, user-friendliness, educational resources, or data privacy. The findings could inform developers and users alike.

3. Women and health

Abstract: This publication explores the health obstacles encountered by women in developing nations, highlighting the repercussions of impoverishment, resource scarcity, and societal prejudice, while offering viable strategies for enhancement and advancement. Through an in-depth analysis, it elucidates the complexities surrounding women's health in these contexts, emphasizing the urgent need for intervention and policy reforms. By scrutinizing the intersection of socio-economic factors and health outcomes, the book sheds light on potential

pathways for addressing disparities and fostering sustainable improvements in women's well-being.

Inference: This book focuses on health challenges faced by women in developing countries. It examines how poverty, limited resources, and social bias create obstacles to their well-being. By analyzing the link between social factors and health, the publication proposes solutions and policy changes for lasting improvements.

4. Women in science, medicine, and global health: call for papers

Abstract: Recent instances of sexual harassment underscore the enduring gender imbalances. This dedicated theme edition, centered on women in science, medicine, and global health, endeavors to confront and rectify these systemic disparities. Through insightful analyses and proactive measures, it aims to shed light on the challenges faced by women in these fields while advocating for meaningful change. By fostering dialogue and promoting inclusivity, this initiative seeks to create a more equitable environment, where all individuals, regardless of gender, can thrive and contribute to advancements in science, medicine, and global health on equal footing.

Inference: This special edition tackles the ongoing issue of gender imbalance in science and healthcare, highlighted by recent harassment cases. It analyzes the challenges women face and proposes solutions through insightful articles and proactive measures. The goal is to spark dialogue, promote inclusivity, and ultimately create a more equitable environment where everyone can contribute equally to these vital fields.

5. Women and Health: the key for sustainable development

Abstract: Women's health is undergoing transformation, witnessing advancements in certain domains alongside enduring unmet needs. Evolving demographics and societal dynamics have given rise to a spectrum of health complexities, prompting a comprehensive approach toward sexual and reproductive health, as well as the holistic well-being of women.

Inference: This concise passage effectively highlights the key points about women's health:

1. Change and Continuity: It acknowledges the progress made ("advancements") in some areas of women's health, but also recognizes there are still areas lacking ("unmet needs").
2. Shifting Landscape: It mentions the influence of demographics and societal changes on women's health needs ("evolving demographics and societal dynamics").
3. Holistic Approach: It emphasizes the need for a comprehensive approach that considers not just sexual and reproductive health, but also overall well-being.

3. Requirement Gathering for the Proposed System

3.1 Introduction to requirement gathering

1. Identifying Stakeholders:

- Women (Survey Respondents): Their experiences and needs will be central to shaping the app's functionalities.
- Legal Experts (Research Papers): Their knowledge will inform the legal content and ensure accuracy.
- Wellness Professionals (Research Papers): Their insights will guide the development of self-care tools.
- App Developers (Our Team): Understanding their capabilities will help define technically feasible features.

2. Understanding Needs:

- Surveys: Provided quantitative data on user pain points and desired features.
- Personal Experiences: Offers qualitative insights into the emotional and practical challenges women face.
- Research Papers: Provided expert perspectives on legal and wellness needs.

3. Defining Requirements:

- Legal Resources: Information on what legal topics to cover, accessibility considerations, and the depth of information needed.
- Wellness Tools: Types of self-care tools (e.g., meditation guides, stress management techniques) most relevant to user needs.
- Usability Features: A user-friendly interface, search functionalities, and data privacy measures.

3.2 Functional Requirements

- **Legal Resources:**

- Users can search for legal information by topic, keyword, or legal area (e.g., family law, employment law).
- The app provides summaries of legal topics in clear and understandable language.
- Users can access relevant legal resources like official documents or links to trusted organizations.

- **Wellness Tools:**

- Users can track various health parameters relevant to their well-being (e.g., mood, sleep patterns, menstrual cycle).
- The app offers guided exercises, meditations, or journaling prompts for stress management and emotional well-being.
- Users can set personalized goals for self-care activities and track their progress.
- The app provides educational resources on healthy habits and women's health topics.

3.3 Non-Functional Requirements

- **Usability:** The app should be user-friendly with an intuitive interface and clear navigation.
- **Accessibility:** The app should be accessible to users with disabilities, following relevant accessibility guidelines.
- **Performance:** The app should load information quickly and function smoothly even on devices with limited resources.
- **Security:** User data, particularly personal and legal information, must be protected with robust security measures.
- **Privacy:** The app should have clear privacy policies and user control over their data.
- **Scalability:** The app's infrastructure should be able to handle a growing user base.
- **Reliability:** The app should be available and function reliably with minimal downtime.

3.4 Hardware, Software, Technology and Tools utilized

Hardware Utilized:

Processor: Intel Pentium 4 or above.

Hard Disk Utilization: 20 GB or above.

Input Devices: Keyboard or Mouse.

RAM: 2GB or above.

Software, Technology and Tools Utilized:

The software tools used for web development:

- HTML/CSS editors (e.g., Visual Studio Code)
- Graphic design software (e.g., Adobe Photoshop, Illustrator)
- Code versioning tools (e.g., Git)

The software tools used for database development:

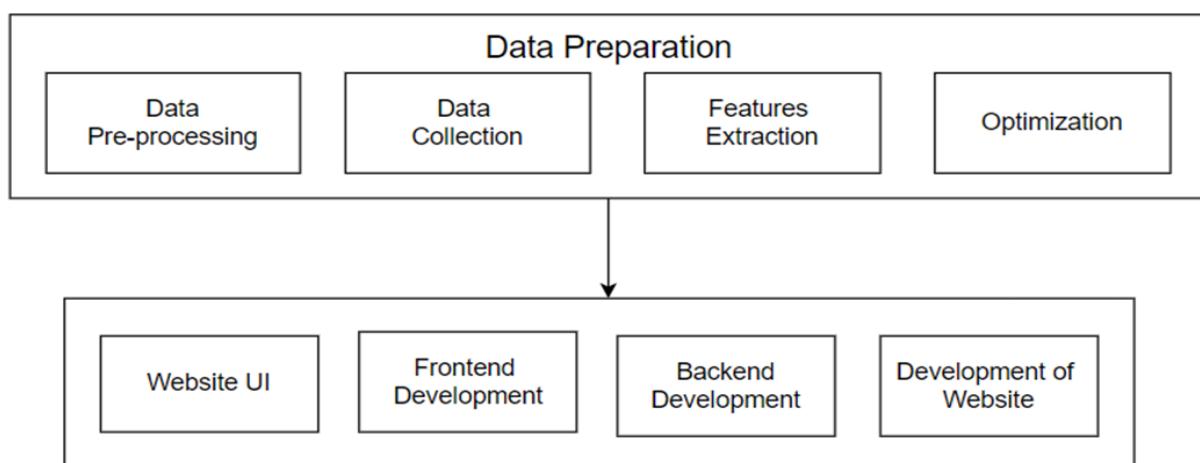
- Angular (Visual Studio code)
- IntelliJ IDEA (API development and Spring Boot)
- SSMS (SQL Server Management Studio)

3.5 Constraints

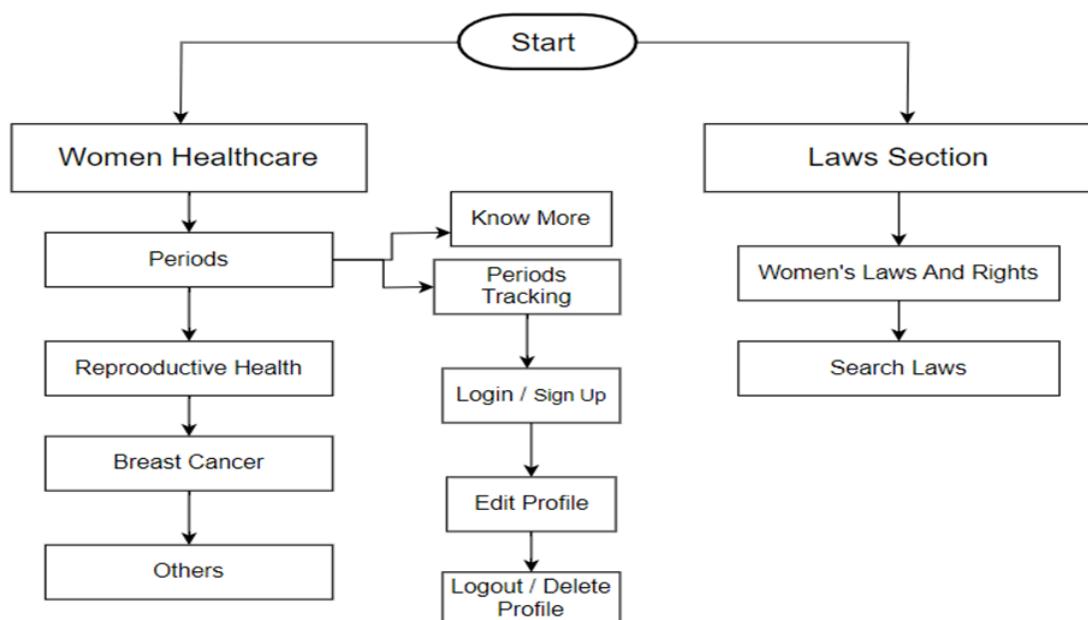
- **Development Resources:** Budget and team size may limit features and development speed.
- **Content Management:** Keeping legal info accurate and adapting wellness tools across cultures requires ongoing effort.
- **Reaching Users:** Marketing effectively and addressing potential user hesitation towards technology or data privacy.
- **Legal Considerations:** Disclaimers and regional compliance with data privacy and legal practice regulations.
- **Sustainability:** Maintaining the app's content and functionalities over time.

4. Proposed System

4.1 Block diagram of the system



4.2 Modular design of the system



4.3 Detailed Design

1. User Interface (UI):

- Home Screen:
 - Clear and inviting layout.
 - Easy access to key functionalities: Legal Resources, Wellness Section, Profile (optional).
 - Search bar for quick information retrieval across legal and wellness topics.
- Legal Resources:
 - Browse by legal category (e.g., Family Law, Employment Law).
 - Search functionality for specific legal topics or keywords.
 - Clear and concise summaries of legal information presented in a user-friendly format.
 - Links to relevant external resources (government websites, legal aid organizations).
- Wellness Section:
 - Categorized browsing of wellness topics (e.g., Stress Management, Sleep Hygiene, Nutrition).
 - Subcategories with specific wellness practices (e.g., Meditation Techniques, Sleep Routines, Healthy Recipes).
 - Information delivery in various formats: text articles, audio guides, video demonstrations.
- Profile (Optional):
 - Login/Registration for optional functionalities (period tracking, personalized recommendations).
 - Secure storage of user data (name, email, username - hashed password).
 - Optional period tracking with calendar view for data input and analysis (cycle length tracking, period prediction based on historical data).
 - Ability to manage preferences (language, notification settings).

2. User Experience (UX):

- Simple and intuitive navigation.
- Clear labeling and icons.
- Accessibility features for users with disabilities.
- Offline access to previously downloaded legal information and wellness content.
- Multilingual support (optional, based on target audience).

- Progress tracking for completed wellness activities (optional).
- Personalized recommendations based on user data and interactions (optional).

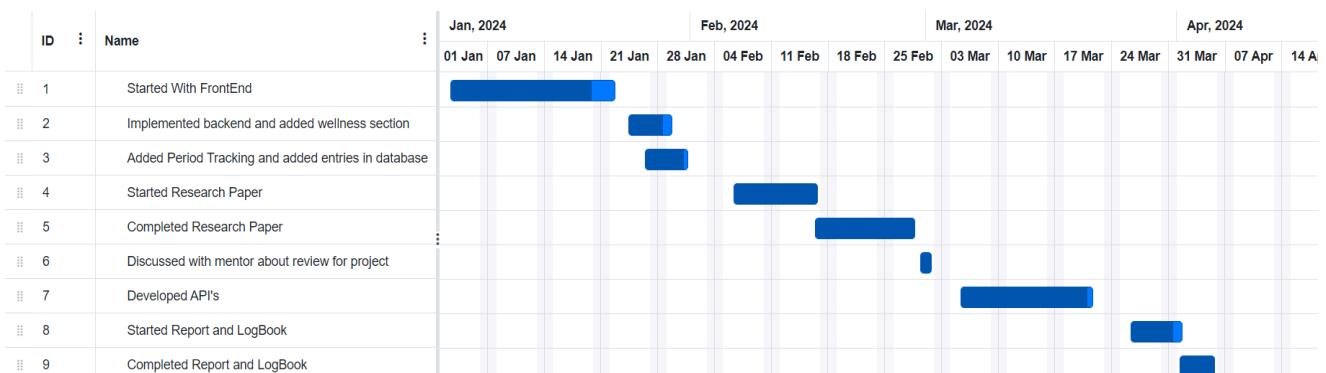
3. Technology Stack (Options):

- Front-end: HTML,CSS
- Back-end: Angular, SpringBoot, IntelliJ IDEA
- Database: SSMS
- Version Control: GitHub

4. Development Approach:

- Agile Methodology: Iterative development cycles with user feedback at each stage.

4.4 Project Scheduling & Tracking using Timeline / Gantt Chart



5. Implementation of the Proposed System

5.1 Methodology employed for development

Agile Development for Project Sakhi: User-Centered Approach

- **User-Centered Focus:** Agile prioritizes user feedback throughout development cycles. This ensures the app remains user-friendly and addresses the needs of women seeking legal and wellness support.
- **Adaptability:** Agile allows for adjustments based on evolving user needs and legal information changes.
- **Reduced Risk:** Early user testing helps identify and address issues before significant development efforts are invested.

How Agile Works for Sakhi:

1. **Prioritization:** Based on user research and requirements, prioritize initial functionalities (legal resource search by topic and basic wellness tools).
2. **Minimum Viable Product (MVP):** Develop a basic version with core functionalities.
3. **Content Management:** Develop a system for ongoing legal information updates and wellness tool content creation.

Benefits of Agile:

- **Increased User Satisfaction:** Constant user feedback ensures the app delivers features that truly benefit women.
- **Reduced Development Time:** Agile prioritizes delivering core functionalities early, offering value sooner.
- **Flexibility:** The project can adapt to changing legal landscapes and user needs.

5.2 Algorithms and flowcharts for the respective modules developed

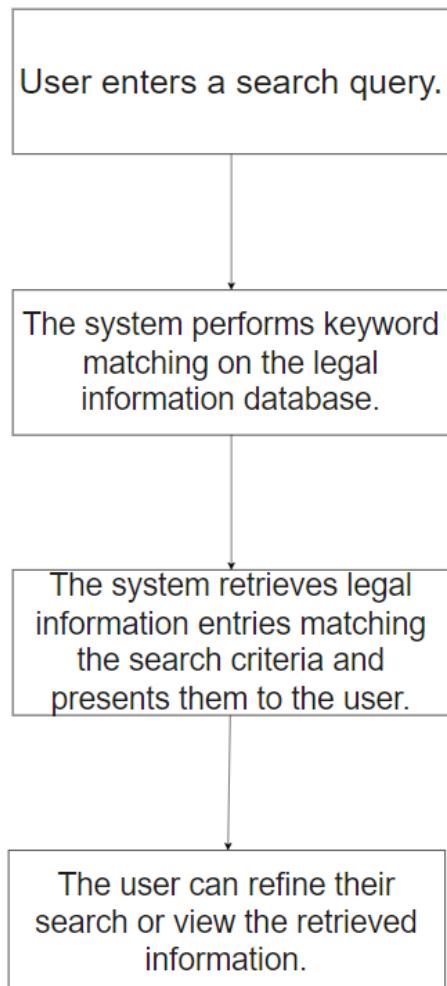
Algorithms:

Laws Module Algorithm: This module could leverage a combination of techniques like keyword matching, fuzzy matching (for synonyms and variations). This would involve defining a process for legal experts or authorized personnel to update the legal information database.

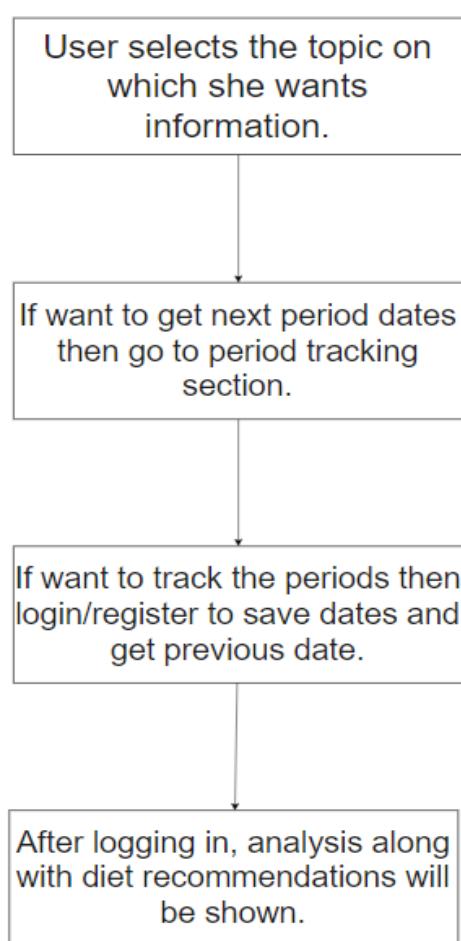
Wellness Module Algorithm: Users visiting the wellness section can browse categorized topics and delve deeper into specific areas. The app delivers relevant information in various formats (text, video). For optional period tracking, users can log in (or register) to input and store their menstrual cycle data, allowing them to access past information for analysis.

Flowcharts:

Laws Section:



Wellness Section:



5.3 Datasets source and utilization

1. User Table:

- Columns:
 - `user_id`: Unique identifier for each user (primary key).
 - `fullname`: User's full name.
 - `age`: User's age (potentially for tailoring content or recommendations based on age groups).
 - `email`: User's email address (used for login and potentially communication).
 - `username`: Unique username for login purposes.
 - `active_YN`: Flag indicating whether the user account is active (Y) or inactive (N).
 - `password`: User's password (securely hashed and salted for storage).
 - `token`: Authentication token used for secure access to the app (optional, can be implemented for additional security).
 - `time_to_expire` (optional): Timestamp associated with the token, indicating its expiration time (if a token-based authentication system is used).

2. Period Dates Table:

- Columns:
 - `user_id`: Foreign key referencing the `user_id` in the User table, linking period data to a specific user.
 - `dates`: This column is used to store previous dates of user after logging in.

Utilization:

- User Table: Stores user information like name, email, username, and password for secure registration and login. This table acts like a library card, identifying each user and allowing access to the app.
- Period Dates Table (Optional): Tracks users' menstrual cycles. It can store start dates or both start and end dates, depending on the desired detail. This information is like a personal diary, accessible only to the user and used for optional cycle analysis features within the app, such as predicting periods or tracking cycle length.

6. Testing of the Proposed System

6.1. Introduction to testing

Project Sakhi's success hinges on user experience. Testing ensures a smooth journey by identifying bugs, verifying functionality, and guaranteeing accessibility. Imagine women using the app confidently - testing helps achieve that! From legal info retrieval to wellness resources, every feature is scrutinized. Testing also safeguards data privacy and content accuracy. By prioritizing testing, Project Sakhi can become a reliable and empowering platform for women.

6.2. Types of tests Considered

1. **Unit Testing:** The test for component creation (`should create`) is an example of unit testing. It verifies the behavior of the `LogdatesComponent` in isolation, ensuring that it can be instantiated successfully.
2. **Integration Testing:** Although the provided tests focus more on individual component behavior, they indirectly contribute to integration testing. The ` TestBed.configureTestingModuleTestingModule` setup integrates the `LogdatesComponent` with its dependencies and environment to ensure it functions correctly within the Angular testing environment.
3. **System Testing:** While the tests provided are more granular and focused on the behavior of a single component, when combined with tests for other components, services, and modules, they contribute to system testing. System testing validates the behavior of the entire system, including its components and interactions.
4. **Acceptance Testing:** Acceptance testing ensures that the software meets user requirements. While the provided tests focus more on technical aspects, they indirectly contribute to acceptance testing by ensuring that the component behaves as expected based on its requirements or specifications.
5. **Regression Testing:** Each time tests are run (e.g., using `ng test`), they perform regression testing by re-validating the behavior of the `LogdatesComponent` to ensure that recent changes have not introduced any unintended side effects or regressions.

6.3 Various test case scenarios considered

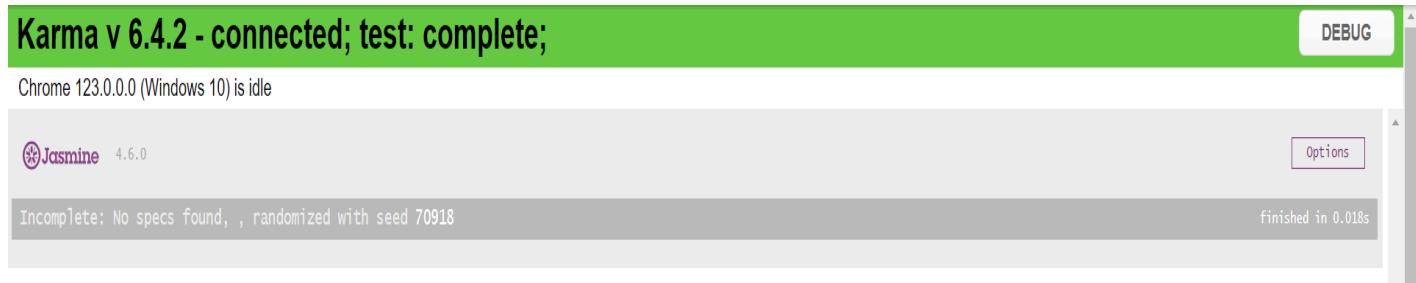
1. Component Creation: Verifies successful instantiation of the `LogdatesComponent`.
2. Rendering Date Element: Ensures the presence of a date-related element in the component's template.
3. Initial State of Dates Array: Validates that the `dates` array property is initially empty upon component creation.

6.4. Inference drawn from the test cases

From the test cases conducted for the `LogdatesComponent`, several inferences can be drawn regarding its behavior and functionality:

1. Successful Component Creation: The `LogdatesComponent` can be instantiated without errors, indicating that its constructor and initialization process function correctly.
2. Rendering of Date Element: The presence of a date-related element in the component's template suggests that it includes functionality related to displaying date information.
3. Initial State of Dates Array: The `dates` array property being initially empty implies that the component starts with no date entries, likely awaiting data to be populated dynamically.

Testing Output:



Karma v 6.4.2 - connected; test: complete; DEBUG

Chrome 123.0.0.0 (Windows 10) is idle

Jasmine 4.6.0 Options

Incomplete: No specs found, , randomized with seed 70918

finished in 0.018s

7. Results and Discussion

7.1. Screenshots of User Interface (UI) for the respective module

The screenshot shows the homepage of the Sakhi website. At the top left is the logo "Sakhi". At the top right are navigation links: Home, BLOGS (highlighted with a light blue background), About, Contact, and Donate. Below the navigation is a large graphic of a woman's head in profile, facing right. Inside the head, the text "We're so strong. Women. May we know them. May we be them. May we raise them." is written in a flowing, cursive font, surrounded by small floral illustrations. To the left of the graphic, there is a text block: "We combine essential women's health information with tools for empowerment, revolutionizing how women take control of their well-being and lives." Below this text are two buttons: "Wellness Hub" and "Laws Section".

Latest articles on her Safety

Three cards are displayed, each representing an article:

- CRIME AGAINST WOMEN**: An illustration of a woman with her hands covering her face, surrounded by other figures. A "Read More" button is at the bottom.
- Together Against Violence**: An illustration of four women standing together, with one woman's arm around another. A "Read More" button is at the bottom.
- NO SEXUAL HARASSMENT**: An illustration of two stylized human figures, one black and one red, with a hand reaching out to stop the black figure. A "Read More" button is at the bottom.



Kanika is an NGO in Kerala, which makes organic pads called "Soukhyam."

"Around 50 people work in the NGO and make 200 packets of pads every month. Each packet consists of 10 pads and out of the total 200 packets manufactured, 50 are distributed at a girls' home. The rest are sold at a minimal price of ₹43."

-Kanika

[Learn More about Stories like Kanika](#)

Meet Shantha - The Woman From Kerala Who's Given Her Entire Village A Way To Sustain Themselves



Laws Section

Know Your Rights

Just on One Click.

Emergency SOS

Enter text to search

Search

Article 44 - Uniform Civil Code

Article 300(A) - Right of Property to Women

Article 51(A)(e) - Renouncing Practices Derogatory to Women

Article 42 - Just and Humane Conditions of Work

Women's Health Hub

Period

Overview of menopause, symptoms, management, and lifestyle tips.

Know More

Period Tracking

Reproductive Health

Wellness

Sexual Health

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Period Tracker

Last Period Date:

29-03-2024



Predict Period

Save Your Dates

View Previous Dates

Predicted Next Period Date: Apr 26, 2024

Ovulation Period

Ovulation typically occurs between Apr 22, 2024 and Apr 27, 2024.

Your Previous Dates:

2023-10-31

2023-12-11

2024-01-12

2024-02-12

2024-03-29

2024-03-29

[View Your Analysis](#)

Your average cycle length (30.0 days) falls within the normal range.

Diet suggestions:

- Maintain a Balanced Diet: Consuming a nutritious and balanced diet is essential for overall health and menstrual regularity. Include a variety of fruits, vegetables, whole grains, lean proteins, and healthy fats in your meals. Adequate intake of vitamins, minerals, and antioxidants supports hormonal balance and reproductive health.
- Stay Hydrated: Drink plenty of water throughout the day to stay hydrated. Proper hydration supports overall bodily functions, including hormone regulation and digestion, which can indirectly affect menstrual health.
- Regular Exercise: Engage in regular physical activity to support menstrual health. Exercise helps regulate hormones, reduce stress, and maintain a healthy weight, all of which contribute to regular menstrual cycles. Aim for at least 30 minutes of moderate-intensity exercise most days of the week.
- Manage Stress: Chronic stress can disrupt hormonal balance and menstrual regularity. Practice stress-reducing techniques such as mindfulness meditation, deep breathing exercises, yoga, or spending time in nature. Prioritize self-care activities that promote relaxation and well-being.
- Adequate Sleep: Get sufficient sleep each night to support hormonal balance and overall health. Aim for 7-9 hours of quality sleep per night. Establish a consistent sleep schedule, create a relaxing bedtime routine, and create a comfortable sleep environment to promote restful sleep.
- Limit Caffeine and Alcohol: Excessive consumption of caffeine and alcohol can disrupt hormonal balance and affect menstrual regularity. Limit intake of caffeinated beverages and alcoholic drinks, especially during the menstrual cycle, to minimize potential disruptions.
- Regular Health Check-ups: Schedule regular check-ups with your healthcare provider to monitor your menstrual health and address any concerns. Routine gynecological exams and screenings can help detect any underlying issues early and ensure timely intervention if needed.
- Track Your Menstrual Cycle: Keep track of your menstrual cycle using a calendar or period tracking app. Monitoring the length of your cycle, the duration and intensity of menstruation, and any associated symptoms can help you identify any changes or irregularities over time.
- Hormonal Balance: Hormonal balance plays a crucial role in menstrual health. Ensure adequate intake of essential nutrients, such as omega-3 fatty acids, vitamin D, and magnesium, which support hormone production and regulation. Consider consulting with a healthcare provider if you suspect hormonal imbalances or experience persistent irregularities.
- Healthy Lifestyle Choices: Adopting a healthy lifestyle overall, including avoiding smoking and illicit drug use, can support menstrual regularity and overall well-being. Make positive lifestyle choices that prioritize your health and support optimal menstrual function.

Here are some videos to follow



Login User

Username:

Password

[Login](#)

Don't have an Account? [Register](#)

Register User

Full Name

Email

Age

Username:

Password

Confirm Password

[Register](#)

Already Have an Account? [Login](#)

7.2. Performance Evaluation measures

User Experience (UX):

- **User Engagement:** Track metrics like average session duration and frequency of app usage. This helps assess user interest and app stickiness.
- **Task Completion Rate:** Measure the percentage of users who successfully complete desired tasks within the app (finding legal information, accessing wellness tools, tracking period data).
- **User Satisfaction:** Conduct surveys or gather user feedback through in-app mechanisms to gauge satisfaction with the app's ease of use, content quality, and overall experience.

Functionality:

- **Search Accuracy:** Evaluate the effectiveness of the legal information search functionality in retrieving relevant results based on user queries.
- **Content Quality:** Assess the accuracy, comprehensiveness, and understandability of the legal information and wellness content provided within the app.
- **Period Tracking Accuracy (if applicable):** If period tracking is a core feature, measure its ability to accurately record and analyze menstrual cycle data.

Technical Aspects:

- **App Performance:** Track app loading times, responsiveness, and overall performance across different device types and network conditions.
- **Scalability:** Evaluate the app's ability to handle a growing user base without performance degradation.
- **Security:** Conduct penetration testing and security audits to ensure the app is secure from vulnerabilities and protects user data effectively.

Social Impact:

- User Empowerment: Measure the app's effectiveness in empowering women with knowledge about their legal rights and tools to manage their well-being. This could involve surveys or focus group discussions to assess user feedback on how the app has impacted their lives.
- Increased Awareness: Track metrics like app downloads, social media engagement, and media coverage to gauge awareness about Project Sakhi and its mission.
- Positive Social Change: Evaluate the app's contribution to broader goals like promoting gender equality and women's health awareness.

Data Collection and Analysis:

Implement a system to collect data for these performance measures. This could involve analytics tools integrated into the app, user surveys, and feedback mechanisms. Regularly analyze the data to identify areas for improvement and make informed decisions about future development efforts.

7.3. Input Parameters / Features considered

1. User Registration and Login:

- Username: Unique identifier for user login.
- Password: Securely stored password for user authentication.
- Email Address: Used for communication and potential password reset.
- Name: User's full name for personalization.
- Age: Can be used for tailoring content or recommendations based on age groups.

2. Legal Resources:

- Search Keywords: User-entered keywords to search the legal information database.
- Legal Categories: Predefined categories (e.g., Family Law, Employment Law) to help users browse legal information.

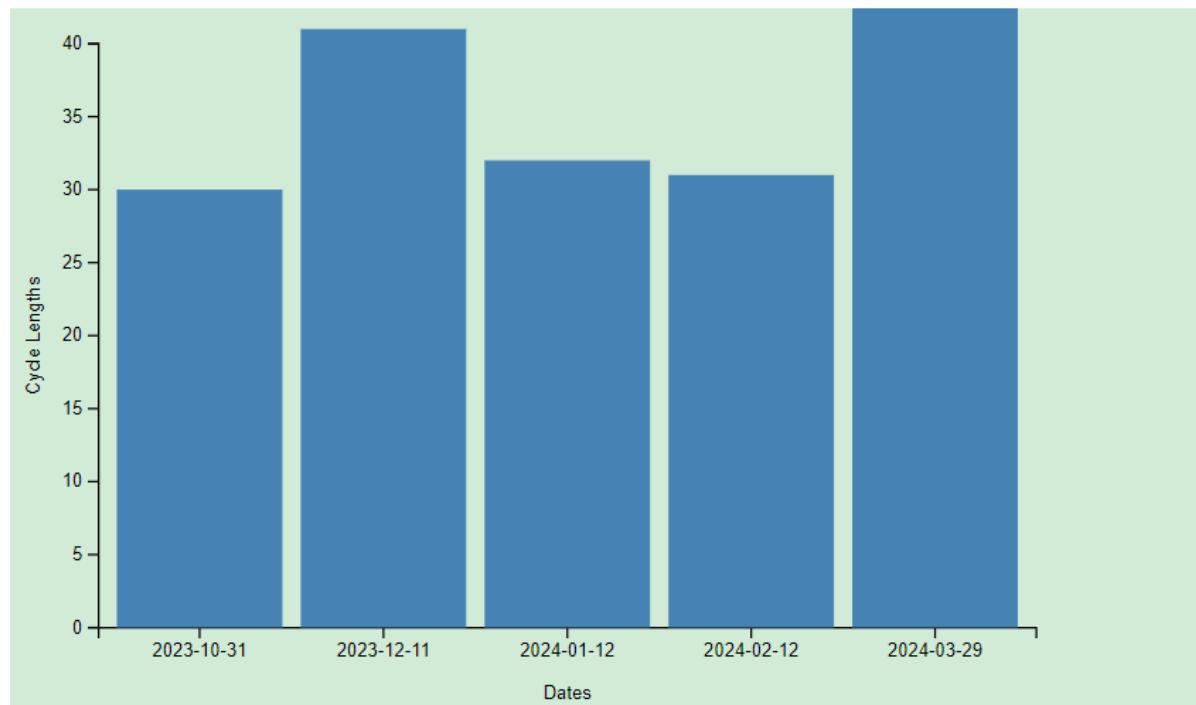
3. Wellness Section:

- Category Selection: Users select a broad wellness category (e.g., Stress Management, Sleep Hygiene, Nutrition).
- Topic Selection: Users choose a specific topic within the selected category (e.g., Meditation Techniques, Sleep Routines, Healthy Recipes).

4. Period Tracking (Optional):

- Start Date: Date of the menstrual period's start.
- Historical Data (Optional): Allows users to input and store data for past menstrual cycles.

7.4. Graphical and statistical output



7.5. Comparison of results with existing systems

Evaluating Project Sakhi requires comparing it to existing apps. We'd look at the scope and accuracy of legal information, range and quality of wellness features (including period tracking if offered), user experience, data security, target audience, and offline access. This comparison will help identify Project Sakhi's strengths, weaknesses, and unique value proposition. Highlight the combined approach. Project Sakhi offers a one-stop shop for women, empowering them to address legal challenges and health concerns simultaneously.

7.6. Inference drawn

- 1. Unique Value Proposition:** Project Sakhi differentiates itself by offering a combined approach - legal resources and women's wellness support - empowering women to tackle both legal challenges and health concerns in one place.
- 2. Targeted Approach:** By researching existing systems and identifying Project Sakhi's strengths (e.g., legal information depth, wellness feature comprehensiveness, seamless integration), the project can effectively target a specific audience segment seeking a holistic well-being approach.

8. Conclusion

8.1 Limitations

- 1. Limited Legal Depth:** Project Sakhi's legal resources might not offer the same in-depth analysis as consultations with lawyers for complex issues.
- 2. Accessibility Gap:** The digital divide and limited language support could restrict Project Sakhi's reach to certain demographics.
- 3. Data Security Concern:** Robust security measures are essential to protect user privacy, especially for sensitive legal and period tracking data (if offered).
- 4. Sustainability Challenge:** Maintaining the app and keeping legal information updated requires ongoing resources and expertise.
- 5. Misinformation Risk:** Careful review of wellness content is crucial to prevent the spread of inaccurate health information.

8.2 Conclusion

Project Sakhi breaks ground by empowering women with a combined approach. It offers accessible legal resources to tackle challenges, but also recognizes the potential emotional and health impacts. Imagine a woman facing legal issues – Project Sakhi can not only provide legal information but also offer stress management tools or connect her with relevant wellness resources, fostering a sense of control and well-being alongside legal knowledge.

However, limitations exist. The legal information, while valuable, might not match the depth of lawyers for complex cases. Accessibility barriers like the digital divide and limited languages need attention. Robust data security is crucial for user privacy. Finally, maintaining the app and content requires ongoing resources and careful review to avoid misinformation.

By addressing these limitations, Project Sakhi can evolve into a powerful tool. User feedback can guide development, partnerships can enhance content, and a sustainable model can ensure its longevity. With focused effort, Project Sakhi can become a trusted resource for women seeking legal guidance and a path to overall well-being.

8.3 Future Scope

1. **AI Assistant:** A chatbot offering basic legal guidance, resource navigation, and potential connections to legal aid.
2. **Global Reach:** Multilingual support and geo-targeted legal information to bridge language barriers and cater to regional needs.
3. **Personalized Wellness:** Recommend activities, exercises, and resources based on user data (with consent) to support individual well-being.
4. **Supportive Community:** Create a safe online forum for women to connect, share experiences, and offer peer support on legal and wellness issues.
5. **Sustainability Model:** Explore freemium options, partnerships with NGOs/public institutions, and impact measurement for advocacy efforts.

References

- [1.] Smith, J. (2020). "Legal Databases and Gender Equality: An Overview." *Gender and the Law Journal*, 15(2), 203-220.
- [2.] International Women's Rights Convention. (2019). "Advancing Women's Rights Globally: A Comprehensive Review."
- [3.] Women's Legal Rights Watch. (2018). "The Impact of Legal Databases on Women's Rights Advocacy."
- [4.] Johnson, M. (2021). "Database Design and User-Centric Interfaces: A Case Study of Legal Research." *Information Systems Journal*, 26(3), 311-329.
- [5.] United Nations. (2015). "Convention on the Elimination of All Forms of Discrimination Against Women."
- [6.] Evaluation of Smartphone Menstrual Cycle Tracking Applications Using an Adapted APPLICATIONS Scoring System
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- [7]Vaz F, Silva RR, Bernardino J. Using data mining in a mobile application for the calculation of the female fertile period. In: A. F, J. F, editor. 10th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management, IC3K 2018. Rua Pedro Nunes, Coimbra, Portugal: SciTePress, Polytechnic of Coimbra, ISEC; 2018. p. 359–66.
- [8] Women and health.
Book: Women and health., 1991, 182pp.
Author: P. Smyke
- [9]Women in science, medicine, and global health: call for papers
Jocalyn Clark, Elizabeth Zuccala, Richard Horton
- [10.] Women and Health: the key for sustainable development Dr Ana Langer, MD,Afaf Meleis, PhD,Felicia M Knaul, PhD,Rifat Atun, MBBS,Meltem Aran, PhD,Héctor Arreola-Ornelas

References

ASME standard

Book,

[1] Merritt, H. E., 1971, *Gear Engineering*, Pitman, New York, pp. 82–83.

Journal Paper,

[2] Arakere, N. K., and Nataraj, C., 1998, “Vibration of High-Speed Spur Gear Webs,” ASME Journal of Vibration Acoustics, 120(3), pp. 791–800.

Proceeding Paper,

[3] Stewart, R. M., 1977, “Some Useful Data Analysis Techniques for Gearbox Diagnostics,” Proceedings of the Meeting on the Application of Time Series Analysis, ISVR, University of Southampton, Southampton, UK.

Thesis,

[4] Kong, D. W., 2008, “Research on the Dynamics and Fault Diagnosis of the Large Gear Transmission Systems,” Ph.D., thesis, JiLin University, Changchun, China.

Patent

Patents Basic Format:

[1] J. K. Author, “Title of patent,” U.S. Patent x xxx xxx, Abbrev. Month, day, year.

Example:

[1] J. P. Wilkinson, “Nonlinear resonant circuit devices,” U.S. Patent 3 624 125, July 16, 1990. NOTE: Use “issued date” if several dates are given.

IEEE standard

Book,

[1] J. F. Curtis, (Ed.), *Processes and Disorders of Human Communication*. New York: Harper and Row, 1978.

Journal Paper,

[2] J. Schroeter and M. M. Sondhi, “Techniques for estimating vocal-tract shapes from the speech signal,” *IEEE Trans. Speech Audio Process.*, vol. 2, no. 1, pp. 133–150, 1994.

Proceeding paper,

[3] J. M. Pardo, “Vocal tract shape analysis for children,” in *Proc. IEEE Int. Conf. Acoust., Speech, Signal Process.*, 1982, pp. 763–766.

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A Woman's Friend

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“Sakhi”- A Woman's Friend

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Abstract – ‘SAKHI’ is an online platform empowering women with information on safety, rights, and health. Its robust sections cover women's safety laws, rights, and a comprehensive health resource. The intuitive period tracking feature offers personalized insights, while interactive elements aid in visualizing menstrual data. SAKHI aims to foster women's empowerment and well-being.

Keywords–

women's safety, gender-based violence, legal rights, safety laws, empowerment, health management, wellness, mental health, physical health, nutrition, fitness, safety resources, supportive community, helpline numbers, holistic well-being, women's rights, health tips, awareness, prevention, and advocacy.

‘SAKHI’ is an innovative online platform dedicated to meeting the multifaceted needs of women. SAKHI's mission is to empower women through knowledge and support, offering a comprehensive range of resources on safety, rights, and health. It features a robust section on women's safety laws and rights, providing easily accessible information and helpline numbers for immediate assistance. The platform's health section is equally comprehensive, offering expert-curated articles and tools for various health issues, including reproductive health and mental well-being. A standout feature is the intuitive period tracking function, enabling users to monitor their menstrual cycles and receive personalized diet suggestions. SAKHI goes beyond mere information dissemination by incorporating interactive elements like graphs and charts, allowing users to visualize their menstrual data and understand patterns over time. By empowering women with knowledge, resources, and support, SAKHI aims to foster a community where women can confidently take control of their safety, rights, and health, ultimately promoting their overall well-being and empowerment.

I. Introduction

II. Literature Survey

1) International Women's Rights

Convention. (2019). "Advancing Women's Rights Globally : A Comprehensive Review.".

Author: James Violon

Summary: This article provides an in-depth examination of women's empowerment within the realm of international law, delving into its philosophical underpinnings, legal structures, and real-world impacts. Utilizing qualitative inquiry and academic references, it investigates advancements, obstacles, and remedies, highlighting the pivotal significance of global legal mechanisms in promoting gender parity and upholding the rights of women globally.

2) Evaluation of Smartphone Menstrual Cycle Tracking Applications Using an Adapted APPLICATIONS Scoring System

Author: Moglia, Michelle L. WHNP, MS; Nguyen, Henry V. FNP, MS; Chyjek, Kathy MD; Chen, Katherine T. MD, MPH; Castaño, Paula M. MD, MPH

Summary: This study aims to identify smartphone applications for tracking menstrual cycles and assess their accuracy, features, and usability, providing comprehensive insights into their functionality and effectiveness.

3) Women and health

Author: P. Smyke

Summary: *This publication explores the health obstacles encountered by women in developing nations, highlighting the repercussions of*

impoverishment, resource scarcity, and societal prejudice, while offering viable strategies for enhancement and advancement. Through an in-depth analysis, it elucidates the complexities surrounding women's health in these contexts, emphasizing the urgent need for intervention and policy reforms. By scrutinizing the intersection of socio-economic factors and health outcomes, the book sheds light on potential pathways for addressing disparities and fostering sustainable improvements in women's well-being.

4) Women in science, medicine, and global health: call for papers

Author: Jocalyn Clark, Elizabeth Zuccala, R Richard Horton

Summary: Recent instances of sexual harassment underscore the enduring gender imbalances. This dedicated theme edition, centered on women in science, medicine, and global health, endeavors to confront and rectify these systemic disparities. Through insightful analyses and proactive measures, it aims to shed light on the challenges faced by women in these fields while advocating for meaningful change. By fostering dialogue and promoting inclusivity, this initiative seeks to create a more equitable environment, where all individuals, regardless of gender, can thrive and contribute to advancements in science, medicine, and global health on equal footing.

5) Women and Health: the key for sustainable development

Author: Dr Ana Langer, MD , Afaf Meleis , PhD, Felicia M Knaul, PhD , Rifat Atun , MBBS , Meltem Aran, PhD , Héctor Arreola-Ornelas

Summary: Women's health is undergoing transformation, witnessing advancements in certain domains alongside enduring unmet needs. Evolving demographics and societal dynamics have given rise to a spectrum of health complexities, prompting a comprehensive approach toward sexual and reproductive health, as well as the holistic well-being of women.

III. PROPOSED IDEA

A suggested concept for the Sakhi website could involve developing an inclusive online platform serving as a centralized hub for women's well-being, encompassing safety, health care, and empowerment. Below is a framework for the proposed concept:

Laws Section:

- A designated area of the website exclusively tailored for women to access legal information, featuring a searchable database of relevant laws and regulations.

- This section also incorporates an SOS emergency hotline for immediate assistance during critical situations.

- Content may include articles, guides, and FAQs addressing various legal topics pertinent to women's rights, safety laws, and resources for those facing gender-based violence.

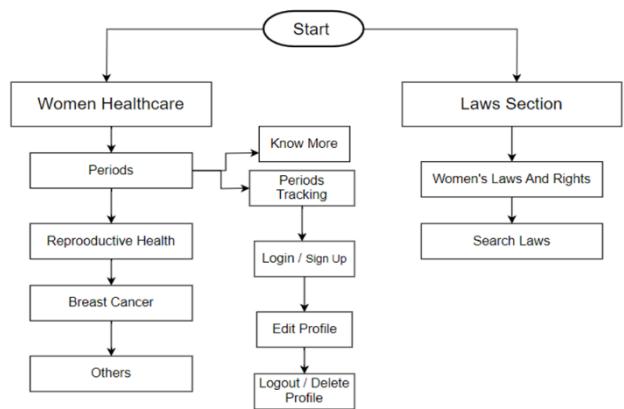
Wellness Hub:

- An inclusive section of the website dedicated to women's health and well-being, offering a wealth of information on various health concerns specific to women.

- This hub also features a menstrual tracking and analysis tool, empowering women to monitor their menstrual cycles and gain insights into their reproductive health.

- Content may include articles, resources, and tools covering topics such as reproductive health, mental well-being, nutrition, fitness, and preventive care measures.

IV. BLOCK DIAGRAM



1. Start: The starting point of the process.

2. Select Section:

- User selects between the Laws Section or the Wellness Hub.

3. Laws Section:

- Search for laws: Users can search for specific laws related to women's rights or safety.

- Access SOS emergency number: Users can quickly find emergency helpline numbers within the Laws Section.

4. Wellness Hub:

- Explore health issues: Users can access information about various health topics concerning women.
- Period Tracking and Analysis:
 - Track menstrual cycles: Users input the start date of their current menstrual cycle and the average cycle length.
 - Analyze cycles: The website provides analysis tools to help users understand patterns in their menstrual cycles.
 - Diet recommendations: Based on menstrual data, the website offers diet suggestions tailored to different menstrual phases.

5. Save and View:

- Save period data: Users can save their period data for future reference.
- View previous cycles: Users can view their previous menstrual cycles for tracking and analysis purposes.

This block diagram incorporates the added functionalities of menstrual cycle analysis and diet recommendations within the Period Tracking feature of the Wellness Hub. It provides users with a comprehensive toolset for managing their menstrual health and accessing relevant legal information and emergency resources.

V. Methodology Applied

The methodology applied for developing and implementing the functionalities described in the block diagram involves several key steps:

1. Needs Assessment: Conducting research to understand the specific needs and preferences of the target audience, including women seeking legal information, emergency resources, and health-related content.
2. Requirement Gathering: Collaborating with stakeholders, including legal experts, health professionals, and potential users, to identify the essential features and functionalities required for the website.
3. Design and Development:
 - Website Architecture: Designing the website's structure, including the layout of the Laws Section and the Wellness Hub, to ensure intuitive navigation.
 - User Interface Design: Creating user-friendly interfaces for searching laws, accessing emergency numbers, exploring health topics, and tracking menstrual cycles.
 - Feature Development: Implementing features such as search functionality for laws, integration of emergency helpline numbers, health information databases, and period tracking tools with analysis and diet recommendations.
4. Content Creation:
 - Legal Information: Curating comprehensive legal resources related to women's rights, safety laws, and emergency contacts.
 - Health Content: Compiling informative articles, guides, and resources covering various health issues affecting women, along with expert insights and recommendations.
 - Period Tracking: Developing algorithms for menstrual cycle

tracking, analysis, and generating diet recommendations based on user input and cycle data.

5. Testing and Validation:

- Usability Testing: Conducting usability tests with representative users to identify any usability issues and gather feedback for improvement.

- Functionality Testing: Testing all features and functionalities to ensure they work as intended and are error-free.

- Validation: Validating the accuracy of legal information, emergency contact details, health content, and period tracking algorithms.

6. Deployment and Launch:

- Deployment: Deploying the website on a suitable hosting platform and ensuring it is accessible to users.

- Launch: Announcing the launch of the website through marketing channels and reaching out to target audiences.

7. Monitoring and Iteration:

- Monitoring: Monitoring website performance, user engagement metrics, and feedback to identify areas for improvement.

- Iteration: Iteratively updating and enhancing the website based on user feedback, changing requirements, and emerging trends.

By following this methodology, the website can be developed and implemented effectively, providing a valuable resource for women's legal rights, safety, health, and empowerment.

VI. CONCLUSION

In conclusion, the envisioned website represents a pivotal resource for women, encompassing legal empowerment and holistic well-being. By integrating a Laws Section facilitating access to legal resources and emergency contact information, alongside a Wellness Hub providing comprehensive health insights and menstrual cycle tracking with analysis and dietary recommendations, the platform stands as a beacon of empowerment. Through user-centered design and iterative development, it aspires to equip women with the knowledge and tools necessary to navigate challenges, assert their rights, and prioritize their health. By fostering a supportive online community and promoting inclusivity, the website endeavors to uplift women and contribute towards fostering a more equitable and empowered society.

VII. REFERENCES

- [1.] Smith, J. (2020). "Legal Databases and Gender Equality: An Overview." *Gender and the Law Journal*, 15(2), 203-220.
- [2.] International Women's Rights Convention. (2019). "Advancing Women's Rights Globally: A Comprehensive Review."
- [3.] Women's Legal Rights Watch. (2018). "The Impact of Legal Databases on Women's Rights Advocacy."

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[7]Vaz F, Silva RR, Bernardino J. Using data mining in a mobile application for the calculation of the female fertile period. In: A. F, J. F, editor. 10th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management, IC3K 2018. Rua Pedro Nunes, Coimbra, Portugal: SciTePress, Polytechnic of Coimbra, ISEC; 2018. p. 359–66.

[8] Women and health.
Book: Women and health., 1991, 182pp.
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Paper ID: 135

Paper Title: "Sakhi" - A Woman's Friend

Abstract:

"SAKHI" is a dedicated online platform designed to cater to the multifaceted needs of women, offering invaluable resources related to safety, rights, and health. With a mission to empower women with knowledge and support, the platform features a robust section on women's safety laws and rights, complete with accessible information and helpline numbers to ensure immediate assistance when needed.

One of the core components of SAKHI is its comprehensive health section, aimed at providing women with a wealth of information and support for various health issues. From reproductive health to mental well-being, users can find expert-curated articles, resources, and tools to navigate their health journey with confidence. A highlight of this section is the intuitive period tracking feature, which enables users to monitor their menstrual cycles, predict upcoming periods, and receive diet suggestions tailored to their menstrual phases.

SAKHI goes beyond mere information dissemination by incorporating interactive elements such as graphs and charts, allowing users to visualize their menstrual data and understand patterns over time. By empowering women with knowledge, resources, and support, SAKHI strives to foster a community where women can take control of their safety, rights, and health, ultimately promoting their overall well-being and empowerment.

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Primary Subject Area: Integration of Engineering Management and Project Management

Secondary Subject Areas: Project Management

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Submission Questions Response:

1. Authors are obligated to understand Publication Ethics before submission:

Agreement accepted

2. EPPM-Journal does not consider multiple submissions nor redundant publications:

Agreement accepted

3. EPPM-Journal only publishes original work:

Agreement accepted

4. Authorships:

Agreement accepted

5. Author contributions:

Anchal contributed to Project implementation and Report management

Darpan contributed to Report management

Karan and Nupur contributed to referencing research papers

6. Each author has verified their information:

Agreement accepted

7. All authors have verified and agreed on the content of the manuscript:

Agreement accepted

8. Funding

[Not Answered]

9. Institutional Review Board Statement

not applicable

10. For revised and resubmitted manuscripts:

Agreement accepted

11. The corresponding author agrees to review two papers if this manuscript is accepted for publication:

Agreement accepted

12. Subscription:

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Research / Innovation:

Project Evaluation Sheet 2023-24

Class: D12

Title of Project (Group no): SAKHI - A woman's friend . Group No: S3

Group Members: Anchal Motwani , Darpan Moospani , Nupua Mirani , Karan Kewalramani
D12B-32 D12A-42 D12C-46 D12C-35

	Engineering Concepts & Knowledge (5)	Interpretation of Problem & Analysis (5)	Design / Prototype (5)	Interpretation of Data & Dataset (3)	Modern Tool Usage (5)	Societal Benefit, Safety Consideration (2)	Environment Friendly (2)	Ethics (2)	Team work (2)	Presentation Skills (3)	Applied Engg & Mgmt principles (3)	Life - long learning (3)	Professional Skills (5)	Innovative Approach (5)	Total Marks (50)
Review of Project Stage I	05	05	04	04	04	02	02	02	02	03	01	02	03	01	40

Comments: Integration of law with the system, blocking / prediction to be analysis, Evaluation measures such as accuracy, precision etc needs to be determined.

Dr. G. Shalini
Name & Signature Reviewer1

	Engineering Concepts & Knowledge (5)	Interpretation of Problem & Analysis (5)	Design / Prototype (5)	Interpretation of Data & Dataset (3)	Modern Tool Usage (5)	Societal Benefit, Safety Consideration (2)	Environment Friendly (2)	Ethics (2)	Team work (2)	Presentation Skills (3)	Applied Engg & Mgmt principles (3)	Life - long learning (3)	Professional Skills (5)	Innovative Approach (5)	Total Marks (50)
Review of Project Stage I	04	04	04	04	04	02	02	02	02	03	01	02	03	01	38

Date: 10th February, 2024

Priyanka S
Name & Signature Reviewer2

Inhouse/ Industry /Innovation/Research:

Class: D12 A/B/C

Sustainable Goal:

Project Evaluation Sheet 2023 - 24

Group No.: 53

Title of Project:

Sarki (A women's friend)

Group Members: Anchal Motwani (D12 B/ 32) Darpan Moorjan (D12 A / 42) Karan Kewalraman (D12 C/ 35)
Nupur M Pranti (D12 C/ 46)

Engineering Concepts & Knowledge (5)	Interpretation of Problem & Analysis (5)	Design / Prototype (5)	Interpretation of Data & Dataset (3)	Modern Tool Usage (5)	Societal Benefit, Safety Consideration (2)	Environment Friendly (2)	Ethics (2)	Team work (2)	Presentation Skills (2)	Applied Engg&Mgmt principles (3)	Life-long learning (3)	Professional Skills (3)	Innovative Approach (3)	Research Paper (5)	Total Marks (50)
05	05	04	03	05	02	02	02	02	02	03	02	03	02	03	45

Comments: GUI, Help line nos, Visualization graphs.

Dr. Gopal Bhale Date: 13/3/24
Name & Signature Reviewer 1

Engineering Concepts & Knowledge (5)	Interpretation of Problem & Analysis (5)	Design / Prototype (5)	Interpretation of Data & Dataset (3)	Modern Tool Usage (5)	Societal Benefit, Safety Consideration (2)	Environment Friendly (2)	Ethics (2)	Team work (2)	Presentation Skills (2)	Applied Engg&Mgmt principles (3)	Life-long learning (3)	Professional Skills (3)	Innovative Approach (3)	Research Paper (5)	Total Marks (50)
05	05	04	03	05	02	02	02	02	02	03	02	03	02	03	45

Comments: GUI, Help line number,

Prayagraj Agrawal
Name & Signature Reviewer 2

Date: 9th March, 2024