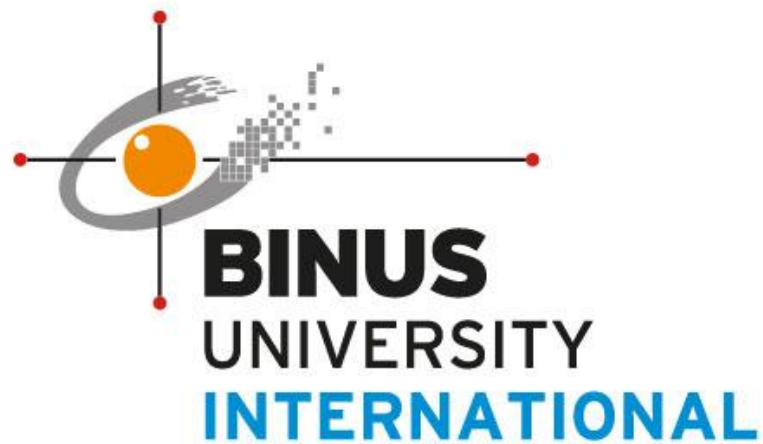


**HUMAN COMPUTER INTERACTION
FINAL PROJECT REPORT**



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Project Name: mom+

Subject: HCI COMP6800001

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TABLE OF CONTENTS

TABLE OF CONTENTS.....	2
1. DESCRIPTION OF THE PROTOTYPE.....	3
2. PROBLEM ANALYSIS.....	3
3. INSPIRED RELATED WORK.....	4
4. STORYBOARDS, MOCK-UPS FOR MULTIPLE DIFFERENT DESIGN OF MOM+.....	5
5. SCREENSHOT OF THE PROTOTYPE AND GITHUB LINK (OR WITH LIVE LINK).....	9
6. PLAN OF EVALUATION METHOD.....	11
A. MAIN SCENARIOS.....	11
B. TEST CASE.....	13
7. SUMMARY.....	15
8. ANNEX: WORK DESCRIPTION.....	16

1. DESCRIPTION OF THE PROTOTYPE

mom+ is a website designed to provide moms or their beloved ones for a mom's pregnancy journey. Our prototype includes the four main features of the website: home page, article page, pregnancy due date calculator page, and pregnancy Body Mass Index (BMI) page.

The home page includes a header with the app's logo in the center and features that a user can interact with, such as the hamburger and search button on the left side and a sign-up button on the right side. The hamburger (menu) button is used to navigate through the available features of the website. The search button is used to search a term or query that the user wants to search from the website. The sign-up button will redirect a user to a sign-up page, where the user can make an account.

The article page includes the same header as the home page, a description box that consists of a text explanation of what the page is all about, and choices of the articles that the user can choose, starting from the first trimester (months 1-3), second trimester (months 4-6) and third trimester (months 7-9). When clicked, the user will be redirected to an article from the number of the month that the user chose.

The pregnancy due date calculator page includes the same header as the home page, a description box that includes a text explanation of what the page is all about, and dropdown buttons that requires a user to choose 'the first day of the user's last period' and its 'cycle length'. By using the information that the user has inputted in the dropdown buttons, the user can click the 'Calculate My Due Date', and the due date prediction will then be shown to the user.

The pregnancy BMI page includes two input buttons that require a user to fill in pre-pregnancy weight and height. By using the information the user has inputted in the input buttons, the user can click the 'Calculate' button, and the pregnancy BMI will then be shown to the user.

2. PROBLEM ANALYSIS

While people are becoming increasingly dependent on the internet, most people fail to learn the most important skill while surfing the web. That skill is none other than the ability to differentiate which source is reliable and which is not. Though most of the

time unreliable sources can be discerned by noticing a few tells, some websites that seem legit may also provide readers at home with hoaxes. This is more dangerous because then it would be much harder to sort the reliable sources from the unreliable ones.

Pregnant soon-to-be moms already have it hard enough, carrying their baby for 9 months. The added stress of trying to find reliable sources that help with their pregnancy is a problem that we aim to fix. mom+'s goal is to lighten the burden of these moms and ensure that they will not have to worry about whether the information they're getting is true or not. Not only that, but mom+ also has other features designed to help expecting moms like our due calculator and also BMI calculator. Maintaining the ideal weight while pregnant is important for both the mom and the baby. That is why we made the BMI calculator.

3. INSPIRED RELATED WORK

We wanted to create something useful that is directed to the people who are often forgotten, pregnant moms. From what we have researched, there are not many websites provided for pregnant moms compared to the thousands of websites that have been made. Moreover, the trustworthiness of the information given on a website matters most in the world of pregnancy. So, we decided to make a website that many pregnant moms can be relied on throughout their own pregnancies. Our mom+ website offers professional advice and articles on all things pregnancy-related. This will definitely help pregnant moms to reduce their concerns about unreliable sources and track their pregnancy milestones.

We were inspired by an app called 'Flo Period Tracker & Calendar' that assists women in properly tracking their periods, ovulation, cycle, fertility or pregnancy. It can be used as a tracker for female health and well-being, including period's start and length, fertile window, ovulation day, sleep intake, and many more. It can also be utilized as a monitor for baby's growth during pregnancy.

4. STORYBOARDS, MOCK-UPS FOR MULTIPLE DIFFERENT DESIGN OF

mom+

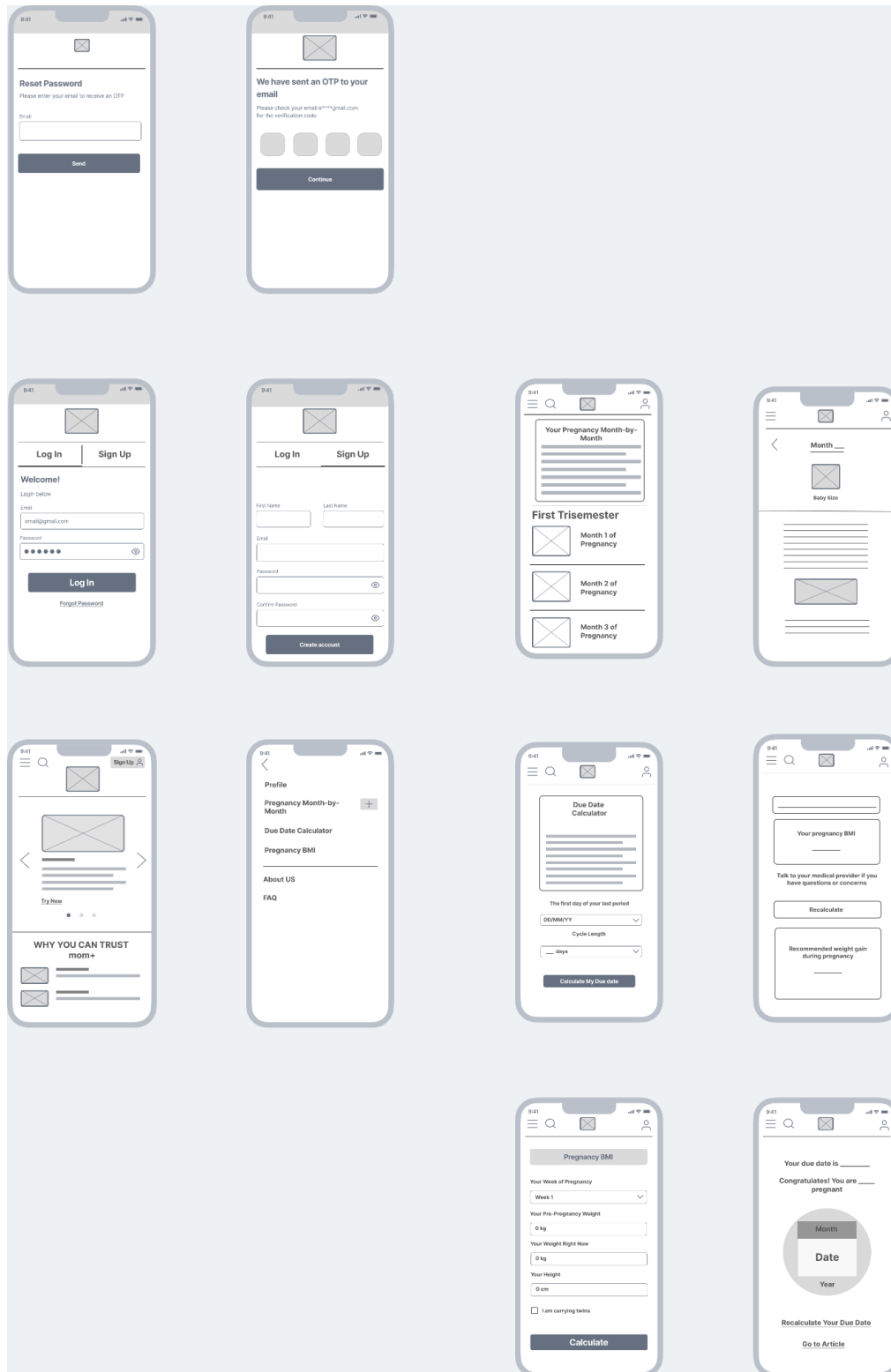
Logo Designs

mom+

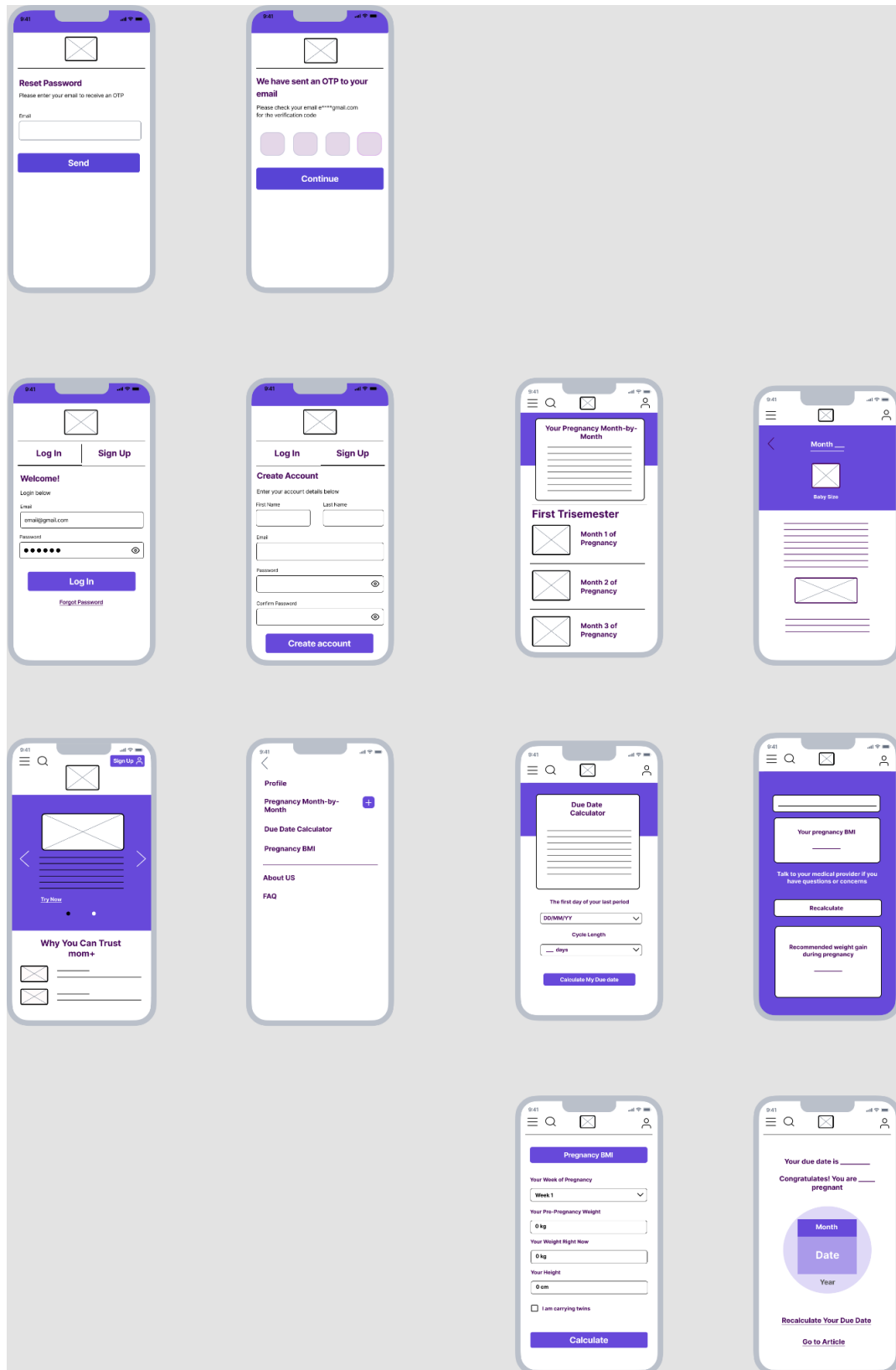
m+



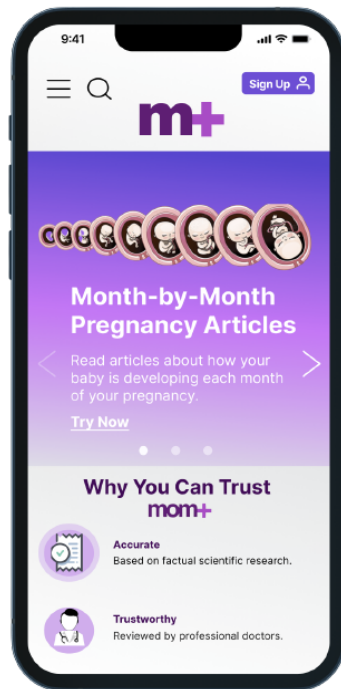
Low-Fidelity Wireframe



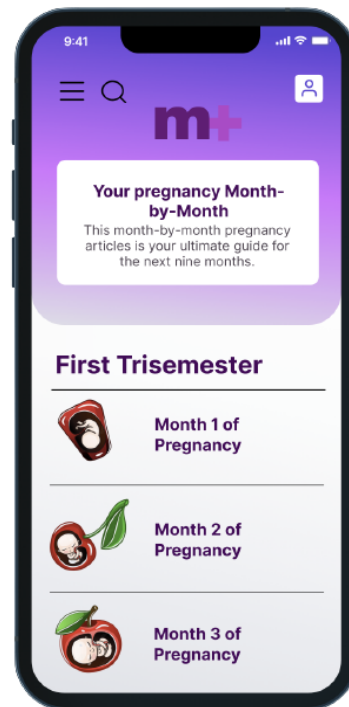
High-Fidelity Wireframe



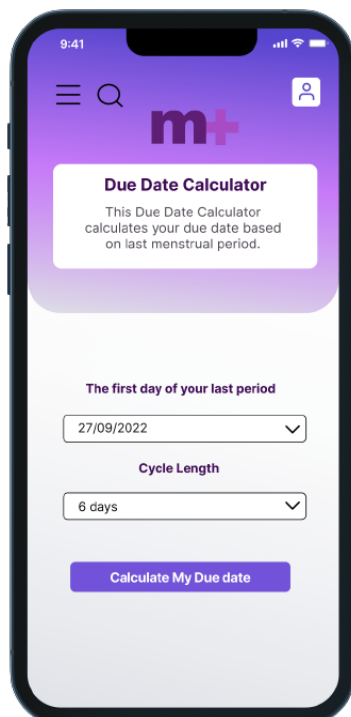
Home Page



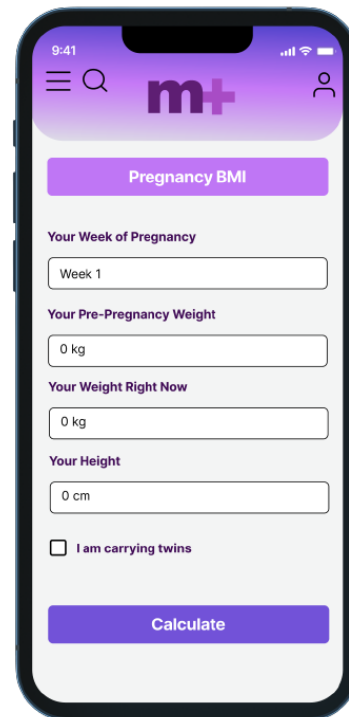
Article Page



Due Date Calculator Page



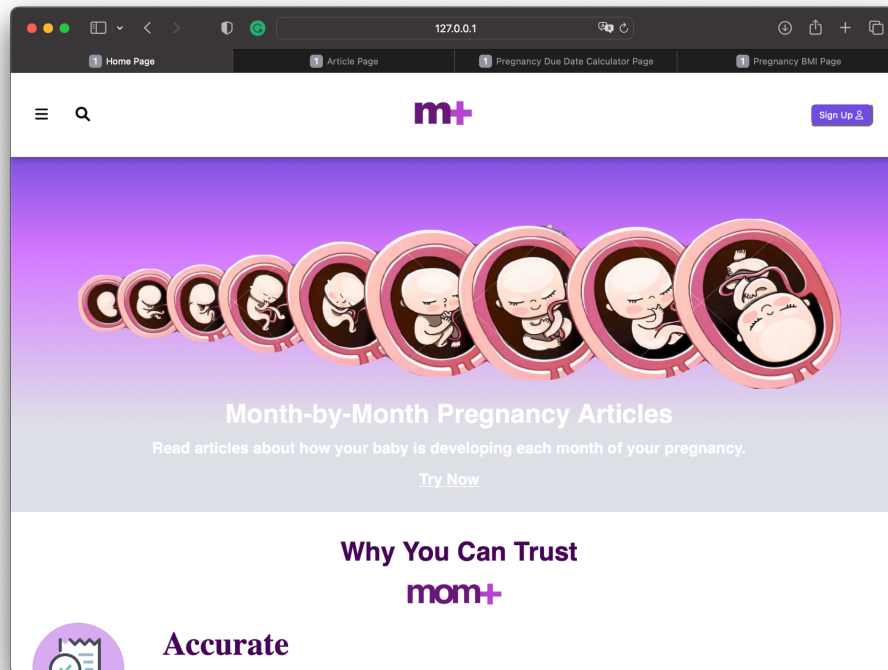
Pregnancy BMI Calculator Page



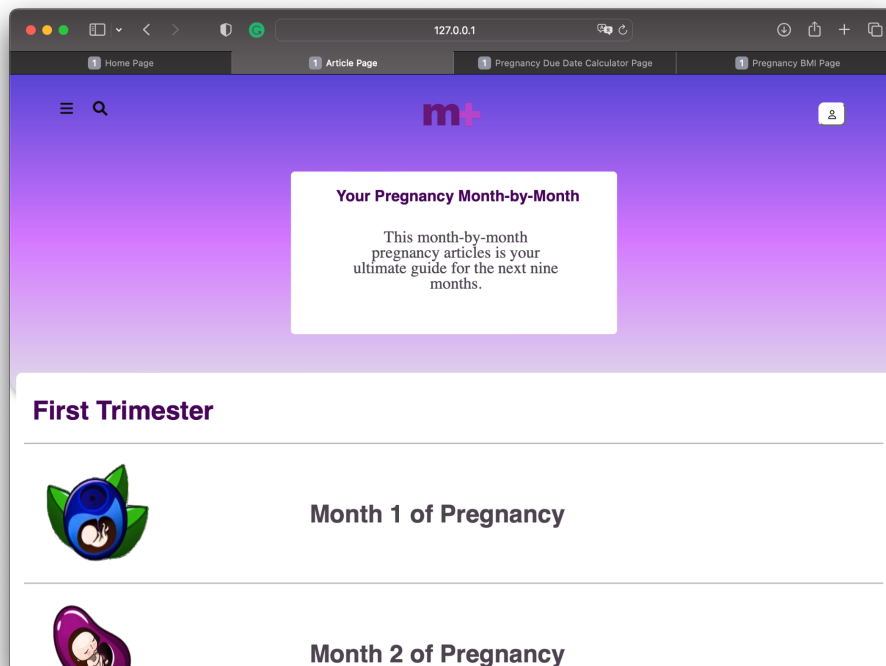
5. SCREENSHOT OF THE PROTOTYPE AND GITHUB LINK (OR WITH LIVE LINK)

<https://github.com/audreyfabiola/momplus-HCI-FP>

Home Page



Article Page



Due Date Calculator Page

The screenshot shows a web browser window with the URL 127.0.0.1. The browser's tab bar shows four tabs: Home Page, Article Page, Pregnancy Due Date Calculator Page (active), and Pregnancy BMI Page. The website has a purple gradient header with a menu icon, a search icon, the 'm+' logo, and a user profile icon. Below the header, a white box titled 'Due Date Calculator' contains the text: 'This due date calculator calculates your due date based on last menstrual period.' Below this box, the form asks for 'The first day of your last period' with a date input field showing '27/08/2022' and a dropdown arrow. It then asks for 'Cycle Length' with a text input field showing '6 days' and a dropdown arrow. At the bottom is a purple button labeled 'Calculate My Due date'.

Due Date Calculator

This due date calculator calculates your due date based on last menstrual period.

The first day of your last period

27/08/2022 ▼

Cycle Length

6 days ▼

Calculate My Due date

Pregnancy BMI Calculator Page

The screenshot shows the same web browser window as the previous one, but with the 'Pregnancy BMI Page' tab active. The website header is identical. Below the header, a purple button labeled 'Pregnancy BMI' is at the top. The form then asks for 'Your Week of Pregnancy' with a text input field showing 'Week 1'. It then asks for 'Your Pre-Pregnancy Weight' with a text input field showing '0 kg'. It then asks for 'Your Weight Right Now' with a text input field showing '0 kg'. It then asks for 'Your Height' with a text input field showing '0 cm'. At the bottom is a checkbox labeled 'I am carrying twins'.

Pregnancy BMI

Your Week of Pregnancy

Week 1

Your Pre-Pregnancy Weight

0 kg

Your Weight Right Now

0 kg

Your Height

0 cm

☐ I am carrying twins

6. PLAN OF EVALUATION METHOD

A. MAIN SCENARIOS

1. Scenario A: Belle the pregnant woman (first pregnancy during her first trimester).

Belle is a young adult experiencing her first-time pregnancy. As it was her first time, she was really concerned because she had no prior knowledge about being pregnant. For her pregnancy, she wanted to ensure that she could find reliable and trustworthy information regarding her as a pregnant woman and her baby. Thus she asked for advice from her sister, Vania, who had been pregnant twice before her. Luckily she was introduced to a website, namely mom+, by her sister who was also a user of it. Her goal was to keep up a healthy pregnancy. Not only for the baby, but also for herself by learning information. So, she opened up mom+'s website. She first signed up for an account, where she was then redirected to the main page. The user interface of the website was straightforward and easy to understand. So she glided through the main page and was relieved by the reasons why she could trust mom+ written on the main page. She then explores the features on the website, firstly by clicking on the 'Try Now' button available in the 'Month-by-Month Pregnancy Articles' section. Once clicked, she was redirected to a page that loads available articles sorted according to the month of pregnancy. As she was in her first month of pregnancy, she clicked on the 'Month 1 of Pregnancy' articles. There, she could read and learn all information in an easy-to-read format about a healthy and balanced diet, how to manage her pregnancy symptoms, embryo size, and much more. Belle now felt more at ease about her pregnancy. After a bit of exploring, she decided to go back to the home page, where there is a contact us section. She wanted to give thanks to the creators for creating this website, thus sending a gratitude message through the contact us section.

2. Scenario B : Matt the loving husband of his pregnant wife.

Matt is a loving husband to his wife, Bri. His wife is having her pregnancy for the first time. Being a father who would have his first baby, he was clueless about how to nurture a woman during pregnancy. He didn't want to be a useless husband around Bri's pregnancy period, so he started to research traditional diets that can be followed during pregnancy through Youtube, elders, books, and basically everything he could lay his hands on. He also sought advice from his friend, Louis, whose wife has had two babies already. Louis then recommended a website called mom+. A website that has been really helpful to him as it provides a lot of reliable information and articles about pregnant moms. He briefly explained how to utilize the website to find articles related to pregnant moms. After that, Matt started exploring the website himself, so he opened the mom+ website. He first signed up for a new account, and then he goes to the 'Month-by-Month Pregnancy Articles' page section, and there was a 'Try Now' button below the page's description. Intrigued to try, he clicked on the button and was redirected to a page showing a list of articles based on the month of pregnancy. On that page, he realizes he can learn a lot of information regarding a healthy diet for Bri, their baby's needs, how to deal with Bri's unstable emotions during her pregnancy, and much more. As a result, he feels more confident now as a father who can take responsibility for his baby.

3. Scenario C : Tirza the pregnant woman (second pregnancy during her third trimester).

Tirza is a young adult experiencing her second pregnancy, she is currently in her third trimester. As it was her second time being pregnant, she already had prior knowledge about mom+ due to her being a user of mom+ during her first pregnancy. Therefore, she already knows the functionalities of the website. She has been keeping track of a healthy weight for the whole trimester by regularly measuring her BMI in the 'Pregnancy BMI' feature available on mom+. To do that, she opened up the mom+ website, then she signed in her account. She then chose 'Pregnancy BMI' from the options available on the main page. There, she can type in the information required for the BMI, such as her weight right now and her height. Then, she clicked on the 'Calculate' button to get the results. She felt the convenience of the feature as she was able to easily calculate her pregnancy BMI, keeping nutritional health for her and the baby. Then, as she was in her third trimester, that meant she was close to the due date. She wanted to be prepared for her labor day by preparing a hospital bag two weeks prior to her due date. From the options available on the main page, she chose the 'Pregnancy Due Date Calculator', where she inputs the first day of her last period and the cycle length. Then, she clicked on the 'Calculate My Due Date' button and got the results. Because of that, she can prepare her hospital bag for labor day two weeks before the due date, being prepared for it.

B. TEST CASE

Test Scenario: Test Article Page Functionality

Test Case ID	Test Case Description	Test Steps	Test Data	Expected Results	Test Results
A - Belle	Learning trustworthy and reliable information through the Month-by-Month Articles feature (Choosing the 'month 1 of pregnancy' from the options).	1. Open mom+ website, sign up for a new account. 2. Redirected to the main page, go through the options from the sliders navigation arrow. 3. Pick the Month-by-Month Articles section (by clicking 'try now' under the section's description) 4. Pick the desired month of pregnancy (by clicking the subtitle. I.e. 'Month 1 of Pregnancy'). 5. Going back to the main page through the hamburger icon menu. 6. Sending a message through the contact us section on the main page.	<ul style="list-style-type: none">• Hamburger menu = Article Page• Section option = Month-by-Month Articles• Articles option = Month 1 of Pregnancy	Successfully entered the articles section.	Pass
B - Matt	Learning trustworthy and reliable information through the Month-by-Month Article feature (Choosing the 'month 1 of pregnancy' from the options).	1. Open mom+ website, sign up for a new account. 2. Redirected to the main page, go through the options from the sliders navigation arrow. 3. Pick the Month-by-Month Articles section (by clicking 'try now' under the section's description) 4. Pick the desired month of pregnancy (by clicking the subtitle. I.e. 'Month 1 of Pregnancy').	<ul style="list-style-type: none">• Hamburger menu = Article Page• Section option = Month-by-Month Articles• Articles option = Month 1 of Pregnancy	Successfully entered the articles section.	Pass

Test Scenario: Test Pregnancy Calculator Due Date and Pregnancy BMI Calculator
Functionality

Test Case ID	Test Case Description	Test Steps	Test Data	Expected Results	Test Results
C - Tirza	Determine if the mom's weight is healthy or not through calculating pregnancy BMI and calculate the due date of the pregnancy.	<ol style="list-style-type: none"> 1. Open mom+ website, sign in an existing account. 2. Redirected to the main page, go through the options from the sliders navigation arrow. 3. Pick the Pregnancy BMI Calculator section (by clicking 'try now' under the section's description) 4. Fill in the required informations to calculate the BMI (Your week or pregnancy, your pre-pregnancy weight, your weigh right now, your height, and whether you are carrying twins or not) 5. Click the 'Calculate' button 6. Click the hamburger menu icon 7. Click 'Due Date Calculator' 8. Fill in the required informations to calculate the due date (The first day of your last period and cycle length) 9. Click the 'Calculate My Due Date' button 	<ul style="list-style-type: none"> • Hamburger menu = BMI Calculator, Due Date Calculator • Section option = Pregnancy BMI • Pre-pregnancy weight • Her height • First day of last period • Cycle length 	BMI and Due Date Calculator can be successfully calculated and be printed out.	<p>Signing in an existing account - Fail</p> <p>BMI and due date calculator - pass</p>

Functions That Are Working

- After signing up, redirected to main page
- Hamburger icon menu and its corresponding page redirection
- Try now text that can be clicked and redirected to the correct page
- Contact us feature
- Article feature
- BMI calculator feature

- Due date calculator feature

Functions That Are Not Working

- Signing up a new account and storing it in a database that can be used for signing in later in the future
- Signing in to an existing account

Summary Evaluation Result

Most of the functions on the website are working and have fulfilled the output expectation. However, the sign in and sign up button still needs improvement, as we currently do not have a database for storing users' accounts.

7. SUMMARY

mom+ is a website designed to provide moms or their beloved ones for a mom's pregnancy journey. We wanted to create something useful that is directed to the people who are often forgotten, pregnant moms, as there are not many websites provided for pregnant moms compared to the thousands of websites that have been made. Our website includes the four main features of the website: home page, article page, due date calculator page, and Body Mass Index (BMI) page. These features are especially designed to aid moms and moms-to-be.

From the test that we have done, the users can successfully access and read the month-by-month articles, calculating their due date and pregnancy BMI. They can click on the sidebar and go to the page that they want to try the feature. Moreover, they can contact the creators by sending messages through the 'contact us' section.

There are several features that we would like to improve in the future, such as the failed database for our signing in and signing up menu page, flexbox or responsiveness of our website (the sign in and sign up page), and making a top navigation bar instead of a sidebar.

8. ANNEX: WORK DESCRIPTION

- Poster: Abigail
- Storyboard:
 - Storyboard (digital drawing of the design): Audrey
 - Low-Fidelity Wireframe: Abigail, Audrey, Jeffrey
 - High-Fidelity Wireframe: Abigail, Audrey, Jeffrey
 - Mock Up: Abigail, Audrey, Jeffrey
 - Branding: Abigail
- Writing Report:
 - Description of the Prototype: Audrey
 - Problem Analysis: Abigail
 - Inspired Related Work: Jeffrey
 - Storyboards, Mock-Ups for Multiple Different Design of mom+: Audrey
 - Screenshot of the Prototype and Github Link (or with Live Link): Abigail
 - Plan of Evaluation Method: Audrey, Jeffrey
 - Summary: Jeffrey
- Coding the Website:
 - Sign up and sign in page:
 - Template of the page: Audrey
 - Design of the page: Abigail
 - Flexboxing the whole page: Abigail
 - Making the javascript of the page: Jeffrey
 - Home page:
 - Header template: Audrey
 - Linking the pages on the hamburger icon menu: Abigail
 - Template, design, and javascript of the slider: Audrey
 - Texts inside of the slider: Jeffrey
 - Linking the try now text: Abigail
 - Making the why you can trust mom+ section: Jeffrey
 - Making the our team section: Audrey
 - Making the testimonials section: Audrey, Jeffrey

- Making the template for the contact us: Audrey
- Designing the contact us: Jeffrey
- Making the footer: Audrey
- Making the javascript for the contact us: Jeffrey
- Flexboxing the whole contents of the home page along with the header (responsive) : Jeffrey
- Month-by-month article page:
 - Making the description box of the page: Audrey
 - Making the description text of the page: Abigail
 - Making the template of article sections options (Month 1-9): Audrey
 - Making the javascript of the page: Audrey
 - Designing the template of article sections options (Month 1-9): Jeffrey
 - Flexboxing the whole page (responsive) : Jeffrey
- Month 1 of Pregnancy - Month 9 of Pregnancy Article Page
 - Template and design of title (e.g. 1 month pregnant), sub-title (e.g. Your baby is as big as a poppy seed), image, medically reviewed by.....: Audrey
 - Template, design, and content of the articles: Abigail
 - Flexboxing the whole page (Responsive) : Jeffrey
 - Javascript of the page: Audrey
- Due Date Calculator
 - Description box: Audrey
 - Template of the calculator: Abigail
 - Designing the calculator: Audrey, Jeffrey
 - Javascript of the calculator: Abigail
 - Flexboxing the whole page (Responsive) : Jeffrey
- BMI Calculator
 - Template of the page: Audrey
 - Designing of the page: Audrey, Jeffrey

- Javascript of the page: Audrey
- Content text of the page: Abigail
- Flexboxing the whole page (Responsive) : Jeffrey
- README
 - Abigail, Audrey