

Comp1682 Final Year Project BSc (Hons) Computing (Information Systems)

**Proposal Paper**

**Period Tracker for Nacit Girl’s**

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1. **Overview**

This project is all about period tracking for Nacit girl’s. Nacit is an institution which is located along highway road as we are going to Limbe market very close to Chichiri Primary School. It offers higher learning education through partnering with NCC and University of Greenwich in information technology.

Nacit girls when having their period, they do count their days, from the day they have started to day concluded, this is done by memorising the dates. Some also write on piece of paper and others do use beads to count the days of menstrual cycle given to them by their mothers. Some use wall or phone calendars to get ovulation predictions day also fertile window. Some girls have also explained that they use body temperature, such that if body temperature is very high, they conclude that ovulation has been concluded in their body, which in the end they miss the mark. However, if period has been delayed, they consult healthy care just to seek medical attention thinking that maybe something is wrong with their reproductive system only to discover that doctors tell them nothing is wrong and after some days they tend to see their period again depending on body response of a particular person.

Challenges with the current system for nacit girls include that girls do register their days of menstruation cycle start and end date manually which is tiresome. Secondly it becomes difficult for these girls to trace their fertility window monthly manually. Thirdly its challenging to calculate their period and ovulation cycle days using manual method. Fourthly its challenging to make a follow up on their previous cycle when these records are needed for medical guidance. It’s also challenging in estimating date of next period. It also becomes a problem in getting suggestion on upcoming period. There is also problem in sharing with their partners on issues relating to period and ovulation cycle. Lastly It’s also difficult for nacit girls in detecting of mood, physical, emotional patterns which are coming.

The proposed system will allow users to register their starting and ending date of their period and ovulation cycles with easily. The system shall allow nacit girls to view their fertility window (date) comfortably. The system shall calculate the period and ovulation cycles for the user. The system will also produce monthly reports for the user for their previous period using graphically. The system shall also estimate the date of next period through count down seven days, and notify user using email, that today period begins at such particular time. The system shall also be able to get suggestion on upcoming period in advance. It shall also allow users to share details with their partners through partner connect and permit open discussion on premenstrual syndrome and fertility. Lastly proposed system shall offer detection of mood, physical, emotional patterns of period for nacit girls.

1. **Aim**

The aim of this system is to develop a mobile app which will allow Nacit girls to register starting and ending dates of period, view their fertility window (date) comfortably, calculate the period and ovulation cycles for the user, to generate monthly reports graphically, generate notifications for the upcoming period, allow users to share details with their partners and detection of mood, physical, emotional patterns of period for Nacit girls.

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1. **Objectives**

**3.1 Investigate and Analyze Current System**

* + 1. Gathering information using interviews.
    2. Gathering information by Surveys.
    3. Gathering information by online app reviews.
    4. Providing students with Questionnaire
  1. **Design the System**
     1. Design the use case diagram
     2. Design the front end and the back end of the system
     3. Design Database from Entity Relation Diagram (ERD)
     4. Design class diagrams and UML diagrams
     5. Design a test plan to project how the system will be tested

* 1. **Develop the System** 
     1. Developing the front end and back end of the system
     2. Develop the database of the system
  2. **Implementation and Testing the System** 
     1. Conduct the Black Box Testing and will be done by users
     2. Conduct a white box testing by the system developer
     3. The system will be implemented by submitting the app to Play Store and follow the submissions guidelines offered by google.
  3. **Documentation** 
     1. Create a user guide
     2. Create a technical manual
     3. Writing the final report of the system

1. **Plan and Methodology**
2. **Object Oriented Methodology**

Oriented Software Engineering (OOSE) could be described as a combination of activities and object oriented methods on development of the software. OOSE makes a structure in which the methods, processes and tools are combined for development of software. The key point in OOSE is the design and analysis phases which play the role and the relation dependency(Sunday and Elugwu, 2022).

Object-oriented programming (OOP) is now widely used in application software development. OOP has advantages connected with handling complexity, reusability, extendibility, modularity and data abstraction, enabling it to handle modern programming requirements more effectively than conventional programming methods(Zhou et al., 1994).

The advantages of object oriented include; Modularity for easier troubleshooting, re use of code through inheritance, flexibility through polymorphism, and effective use of code (“4 Advantages of Object-Oriented Programming,” n.d.)

1. **Work break down structure**

Work Breakdown Structure (WBS) is a deliverable-oriented hierarchical decomposition of the work to be executed by the project team to accomplish the project objectives and create the required deliverables. A WBS is the cornerstone of effective project planning, execution, controlling, monitoring, and reporting. All the work contained within the WBS is to be identified, estimated, scheduled, and budgeted. Company owners and project managers use the Work Breakdown Structure (WBS) to make complex projects more manageable. The WBS is designed to help break down a project into manageable chunks that can be effectively estimated and supervised. This article will give a few work breakdown structure examples and will give you an overview of how WBS can help in project planning(Alutbi, 2020)

1. **Gantt Chart**

A Gantt chart is a type of bar chart that illustrates a project schedule and shows the dependency relationships between activities and current schedule status. In simpler words, Gantt charts are a visual view of tasks displayed against time. They represent critical information such as who is assigned to what, the duration of tasks, and overlapping activities in a project(Kashyap, 2022).

1. **Resource Requirement and Tools**

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| --- | --- | --- |
|  | **Tool** | **Description** |
| Hardware | Laptop | This will be used for system development(coding) |
| Router | It will be use to connect to the internet to access tutorials and some code |
| Hard Drive | This device will used to duplicate the project as a way of backing the system up |
| Software | Star UML | This will be used to create the logical structure of the system in form of diagrams, such as sequence diagrams, class diagrams and use case diagrams. |
| Microsoft Office | This will be used to create project documentations as well as the user guide for the system. |
| SQLITE(sqflite) | This will be used to construct the database that will be used to store the data for the system. |
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1. **Other Issues and Considerations**
2. **Legal issues**

Legal issues refer to any matter that may arise in the context of the law, including disputes, conflicts, and violations of laws or regulations. It is essential to understand what constitutes a legal issue because it helps individuals and organizations to navigate the legal system and protect their rights. Legal issues can have significant consequences, both financially and personally, and can range from simple contract disputes to complex constitutional issues. Therefore, everyone, whether an individual or a business, should be aware of their legal rights and obligations to avoid legal complications(Anderson, 2023). Therefore, the proposed system will make sure that all legal issues are being avoided to reduce conflict among users.

1. **Social issues**

**References**

Alutbi, M., 2020. WORK BREAKDOWN STRUCTURE (WBS).

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Kashyap, S., 2022. What is Gantt chart? - Definition, Benefits, Features & Software [WWW Document]. ProofHub. URL https://www.proofhub.com/articles/gantt-charts (accessed 10.4.23).

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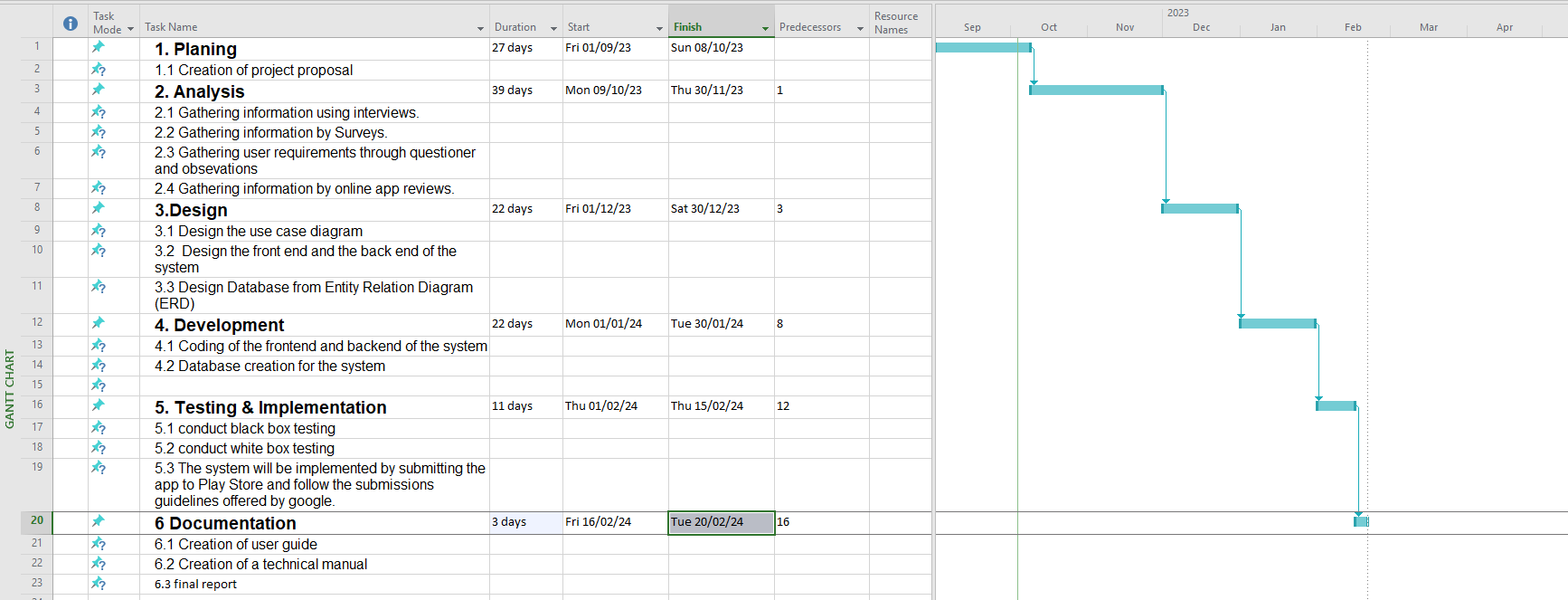
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**APPENDIX – work break down structure**

This involves breaking the project into smaller tasks to make the project more manageable. We divide the project into phases and activities.

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| --- | --- | --- | --- | --- | --- |
| **Phase** | **Description(activity)** | **Duration** | **Start Time** | **End Time** | **Milestones** |
| Project Planning | * Project Proposal | 27 days | 1st September 2023 | 8th October 2023 | Project Proposal |
| Investigate and  Analyze  Current System | * + - Gathering information using interviews.     - Gathering information by Surveys.     - Gathering information by online app reviews.     - Providing students with Questionnaire |  | 9th October 2023 | 30th November 2023 | Requirement Specifications |
| Design the System | * + - Design the use case diagram     - Design the front end and the back end of the system     - Design Database from Entity Relation Diagram (ERD)     - Design class diagrams and UML diagrams     - Design a test plan to project how the system will be tested |  | 1st December 2023 | 30th December 2023 | Detailed design Documentation |
| Develop the System | * + - Developing the front end and back end of the system     - Develop the database of the system |  | 1st January 2024 | 30th January 2024 | Actual Coded System |
| Implementation and Testing Phase | * + - Conduct the Black Box Testing and will be done by users     - Conduct a white box testing by the system developer     - The system will be implemented by submitting the app to Play Store and follow the submissions guidelines offered by google. |  | 1st February 2024 | 15th February 2024 | Test results |
| Final  Documentation | * + - Create a user guide     - Create a technical manual     - Writing the final report of the system |  | 16th February | 20th February | final Report |

**APPENDIX – Gantt Chart**

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