System Request Template (Delivery 1)

1. Project Title:

MediChronicle

2. Project Team:

- Walid Belbach (Back-end development)
- Fuad Thabit (Front-end development)
- Isaac Owusu (Front-end development)
- Matthias Kebede (Back-end development)

3. Project Description:

MediChronicle is a web application designed to address the lack of coordination and continuity in patient care. The application acts as a patient diary, recording all consultations, diagnoses, medications, radiology, and practices recommended by doctors throughout the patient's medical history.

The application will have two types of users:

- ➔ *Doctors*: who have their own portal and who are responsible for inserting the recordings in the application. In addition to that, MediChronicle will ensure efficient communication between healthcare providers in case of some confusion regarding some past health records of patients.
- ➔ *Patients*: who can only access their records without the ability to modify anything.

4. Business Goals:

- Facilitate seamless communication and information sharing among healthcare providers for improved patient care.
- Empower patients with a centralized repository of their medical history, promoting active involvement in their healthcare decisions.
- Enhance the overall efficiency of the healthcare sector by providing a standardized

platform for recording and accessing patient data.

- Establish a secure and user-friendly system that adheres to data privacy regulations.

5. Main Features (Engineering Objectives):

User Authentication and Profiles: Implement secure login mechanisms for doctors and patients with personalized profiles.

Consultation Record Entry: Enable doctors to input detailed summaries of consultations, including diagnoses, prescribed medications, radiology, and recommended practices.

Patient Access: Allow patients to access and view their medical history, categorized by consultations, doctors, and illnesses.

Doctor Contacts Section: Include a section with contact and reference information for doctors the patient has visited.

Direct Communication Features Between Doctors: Doctors related to the patient could reach each other in order to shed light about some matter or some issue related to the patient (through a chat feature within the system).

6. Scope:

Within the project's scope:

- Secure user authentication and profiles.
- Consultation record entry for doctors.
- Patient access to their medical history.
- Doctor contacts section for reference and communication.

Not within the project's scope:

- ➢ Direct communication features between doctors and their patients
- ➢ Integration with External Systems
- ➢ Advanced Analytics and Reporting
- ➢ Multi-language Support

7. Stakeholders:

- Patients seeking access to their medical history.
- Doctors inputting consultation records.
- Project team members.
- Government.
- Health sectors whether private or public.
- Insurance companies
- Patient families or caregivers: in case where patients are not fully able to manage their healthcare independently

8. Constraints:

- Budget constraints for development and maintenance.
- Time constraints for project completion.
- Adherence to healthcare data protection regulations.
- Technical constraints related to data accuracy and system security.
- Compatibility with existing workflows in healthcare settings.
- Scalability constraints to the increasing demand and heavy usage.

9. Risks:

- Resistance from healthcare providers to adopt a standardized platform.
    - Mitigation: Conduct training sessions, highlight benefits, and gather feedback for continuous improvement.
- Technical challenges in ensuring data security and privacy.
    - Mitigation: Collaborate with cybersecurity experts, conduct regular audits, and implement encryption protocols.
- Patient concerns about data privacy.
    - Mitigation: Clearly communicate security measures, obtain informed consent, and comply with data protection regulations.
- User training and adoption: difficulty in getting users, especially those less tech-savvy, to effectively use the system.
    - Mitigation: develop comprehensive training programs, and create user-friendly

interfaces with sufficient support and documentation.

- Data integrity and accuracy: risk of errors in data entry or transfer leading to inaccurate patient records.
    - Mitigation: implement robust data validation techniques, and conduct regular audits of data quality.

10. Appendix:

Include any additional documents or reference materials that support the System Request.