Software Engineering Project (Phase 1)

Delivery Time: during practical week

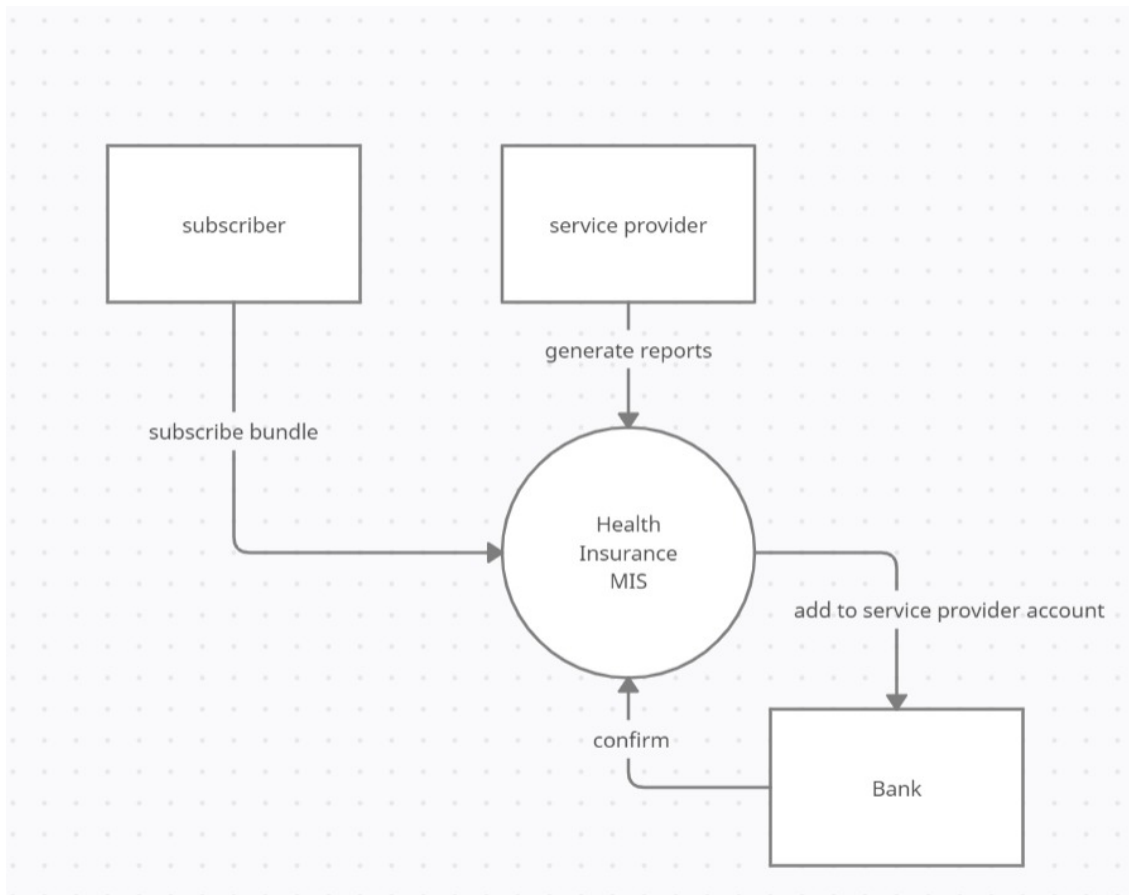# Health Insurance system

SRS Document Template

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1. Introduction

The system needs to keep track of the subscribers of insurance companies. It allows the patients to browse medical support from service providers: doctors and medical institutions. It should allow service providers to keep track of their financial dues. Service providers get paid their fees through an external banking system and allow the patient to pay for insurance bundles through it. This system should compensate for the hassle of paperwork and facilitate the process between users, such as patients, doctors and institutions, and the insurance company

2. Context Diagram

3. User Requirements

- **Browse Doctors and Medical Institutions:** the system shall allow the user to browse the list of available **doctors** and **medical institutions** based on a chosen **category**.
- **Registration:** the system shall allow the user to register as a **doctor** or a **medical institution** that should state their specialization, or as a **patient** that should be able to add dependents.
- **Choose Insurance Bundle:** the system shall allow the user (patient) to choose the appropriate bundle and pay for it through an external banking system.

4. Functional Requirements

Registration:
– The system shall support the creation of three account types whether it's for a user, medical institution, or a doctor. According to the chosen account type the database responsible for saving such data is chosen to save the data entry.
– Users are required to be at least 21 years old. They are required to provide their name, and ID.
– The system shall save the account data as a database entry.

List doctors and organizations:
– The system shall read database entries of the doctors/institutions , then display the name, specialization according to the chosen category.
– The user shall be registered and logged in and shall choose a specific category.
– The system shall view the name, specialization of all doctors and organizations within the provided category.

Searching by Name:
– The system shall support searching for a specific medical institution or searching for a doctor by their name.
– The user shall be logged in, and shall enter the name of the medical institution or the doctor.
– The system shall display all the doctors or organizations having the same name as that provided by the user.

Receive reports from medical institutions / doctors:
– The system shall receive records from the organizations providing medical care for the users. It shall save those records in the transaction history and notify the system to calculate the amount of financial dues that the doctor/health organization should be provided with.
– The doctor/institution shall be logged in. The record shall include the user name, the name of the doctor/institution providing the service and the discount amount, and the bank account number of the doctor/institution.
– The received report is saved as a database entry.

Calculate the payments:
– The system shall receive the medical report from institutions providing the service, then the system shall calculate the amount of financial dues that the doctor/health organization should be provided with
– The user should be logged in, and the system should be notified to calculate the payments upon receiving a report from the doctor/medical institution.
– The result of the function should be saved as a database entry in a database containing all the reports of money transactions that are required to be made.

Generate reports to the banking system:
– The system shall generate reports providing information about the amount of money to be transferred and the account number of the medical institution.
– The database containing all the reports of money transactions that are required to be made should not be empty.
– The bank account number of the insurance company, the bank account number of the doctor/health organization, and the amount of money to be transferred to the doctor/health organization.

5. Non-Functional Requirements

- The system shall allow the creation of a record with a single interaction.
- The system admin shall successfully add a subscriber or a service provider account, with minimal errors on their first try.
- The access permissions for system data may only be changed by the system's data administrator.
- The system shall achieve 99.5% uptime.
- The system restart cycle must execute completely in less than 60 seconds.
- Any interface between a user and the automated system shall have a maximum response time of two seconds.