

Software Engineering Assignment- 04

Design Document

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Use Case Diagram:

A use case diagram at its simplest is a representation of a user's interaction with the system that shows the relationship between the user and the different use cases in which the user is involved. A use case diagram can identify the different types of users of a system and the different use cases and will often be accompanied by other types of diagrams as well.

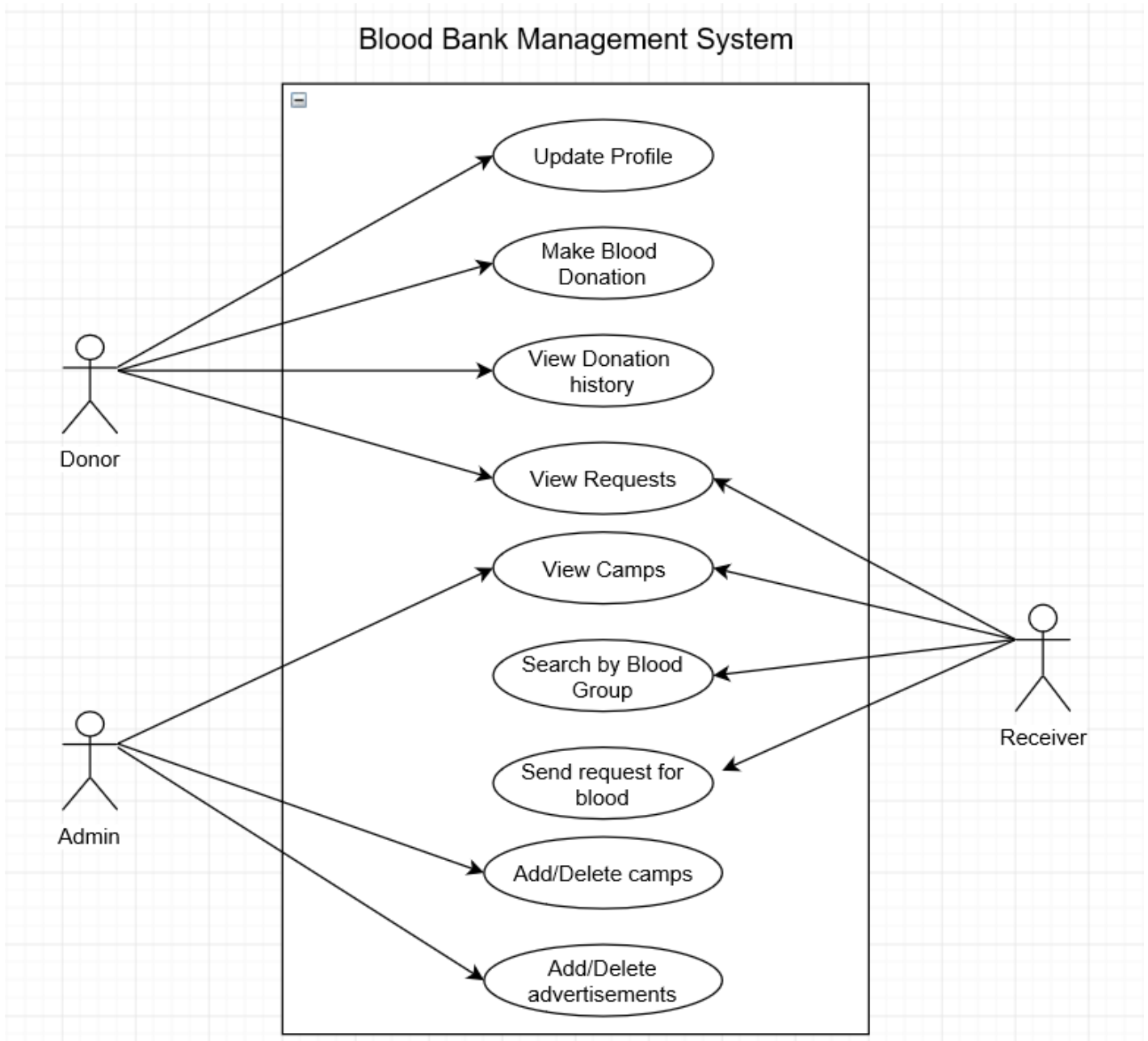


Figure 1: Use Case Diagram for Blood Bank Management System

Activity Diagrams:

Activity diagrams are graphical representations of workflows of stepwise activities and actions with support for choice, iteration and concurrency. In the Unified Modeling Language, activity diagrams are intended to model both computational and organizational processes, as well as the data flows intersecting with the related activities. Although activity diagrams primarily show the overall flow of control, they can also include elements showing the flow of data between activities through one or more data stores.

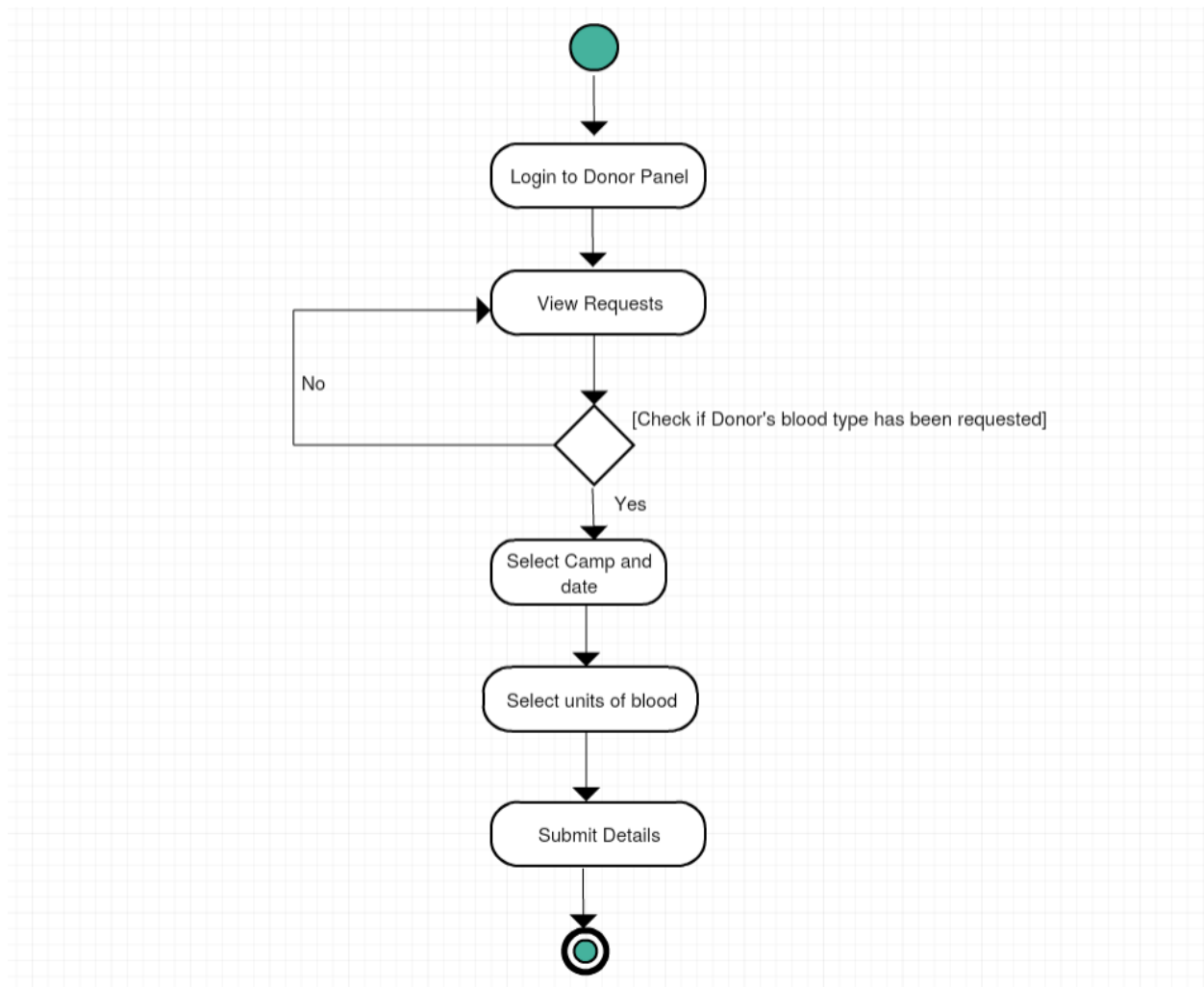


Figure 2: Activity diagram for donating blood by the Donor

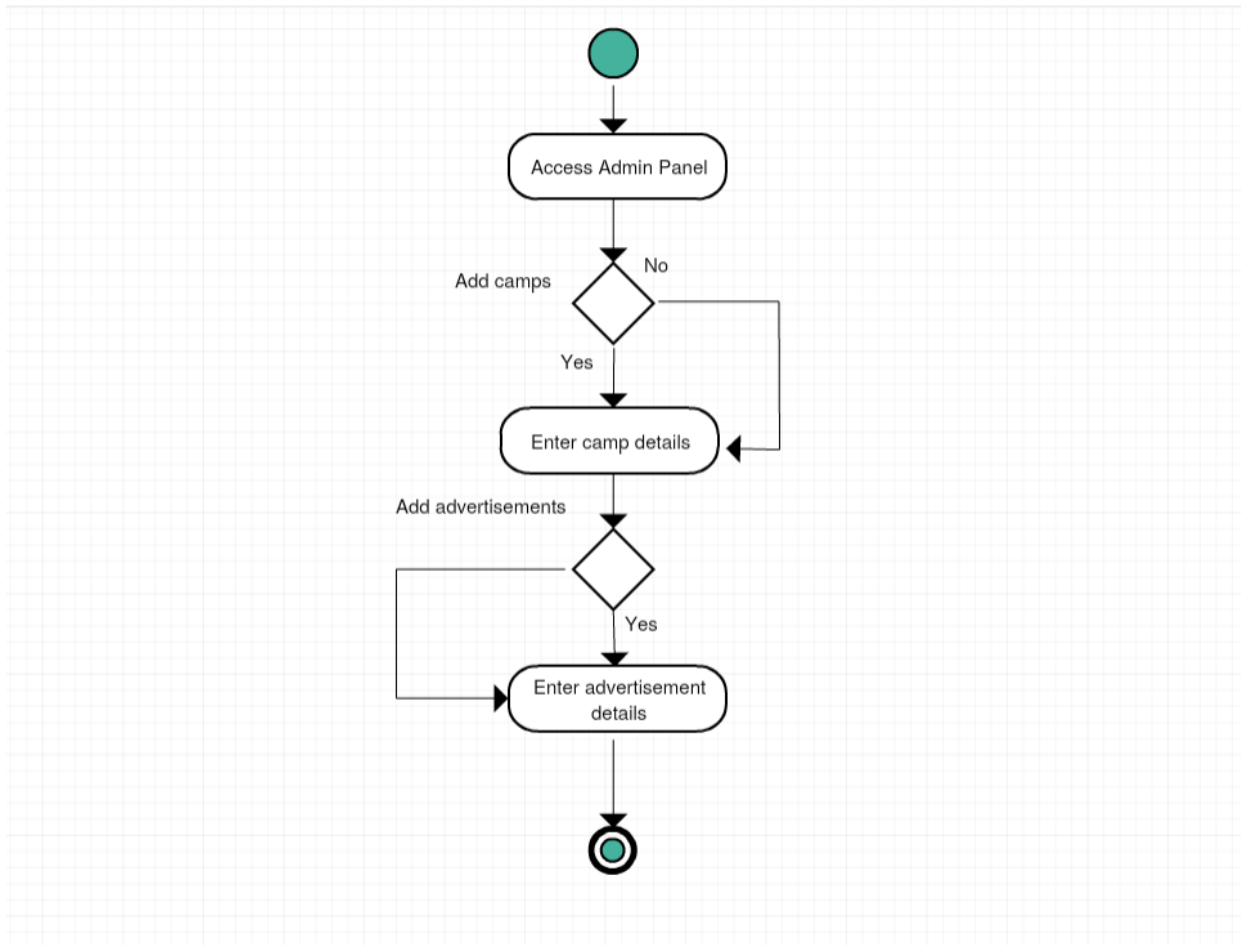


Figure 3: Activity Diagram for accessing Admin Panel

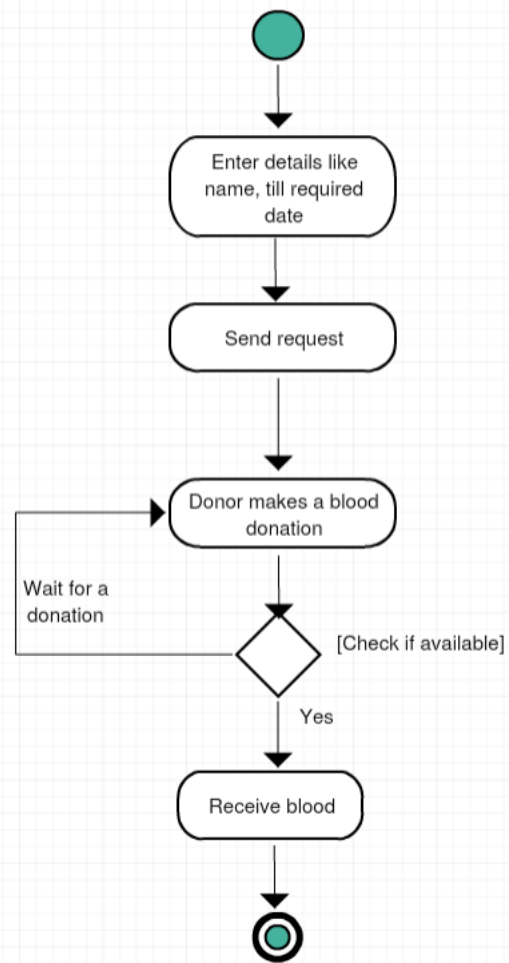


Figure 4: Activity Diagram for receiving blood

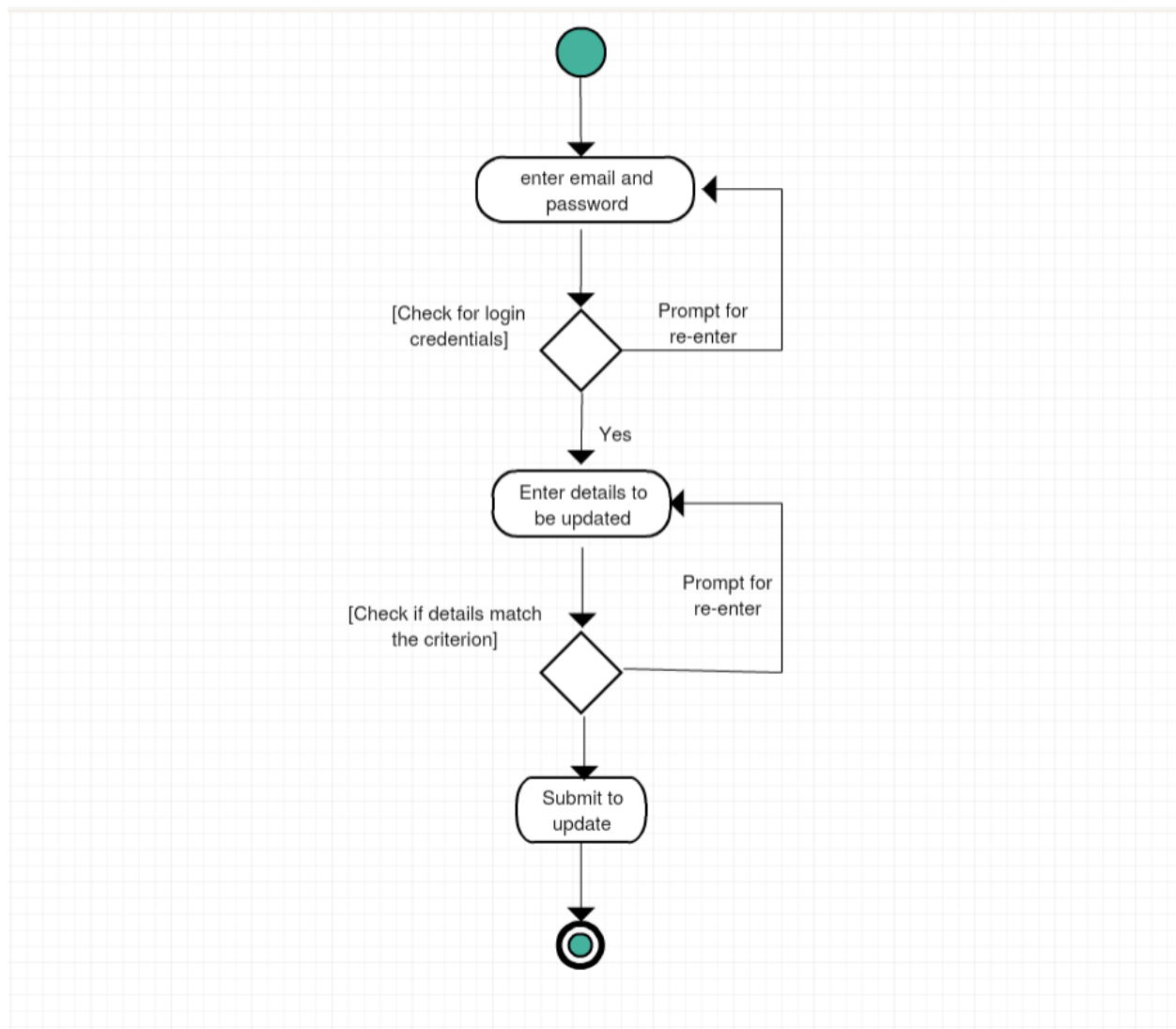


Figure 5: Activity Diagram for updating Donor Profile

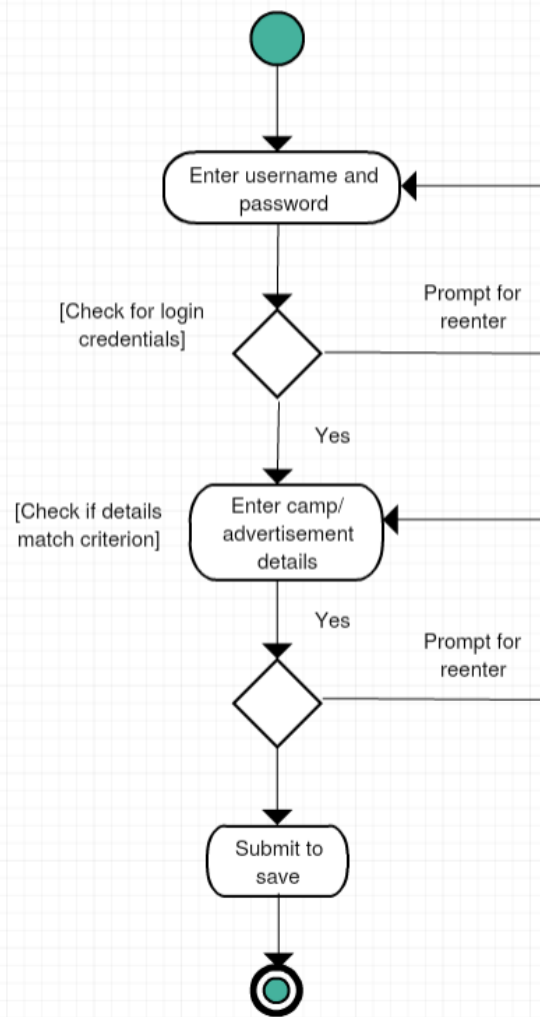


Figure 6: Activity Diagram for adding camp/advertisement details

Navigation Diagrams:

A navigation diagram is a design diagram showing the windows in the system and the possible transitions from one window to another.

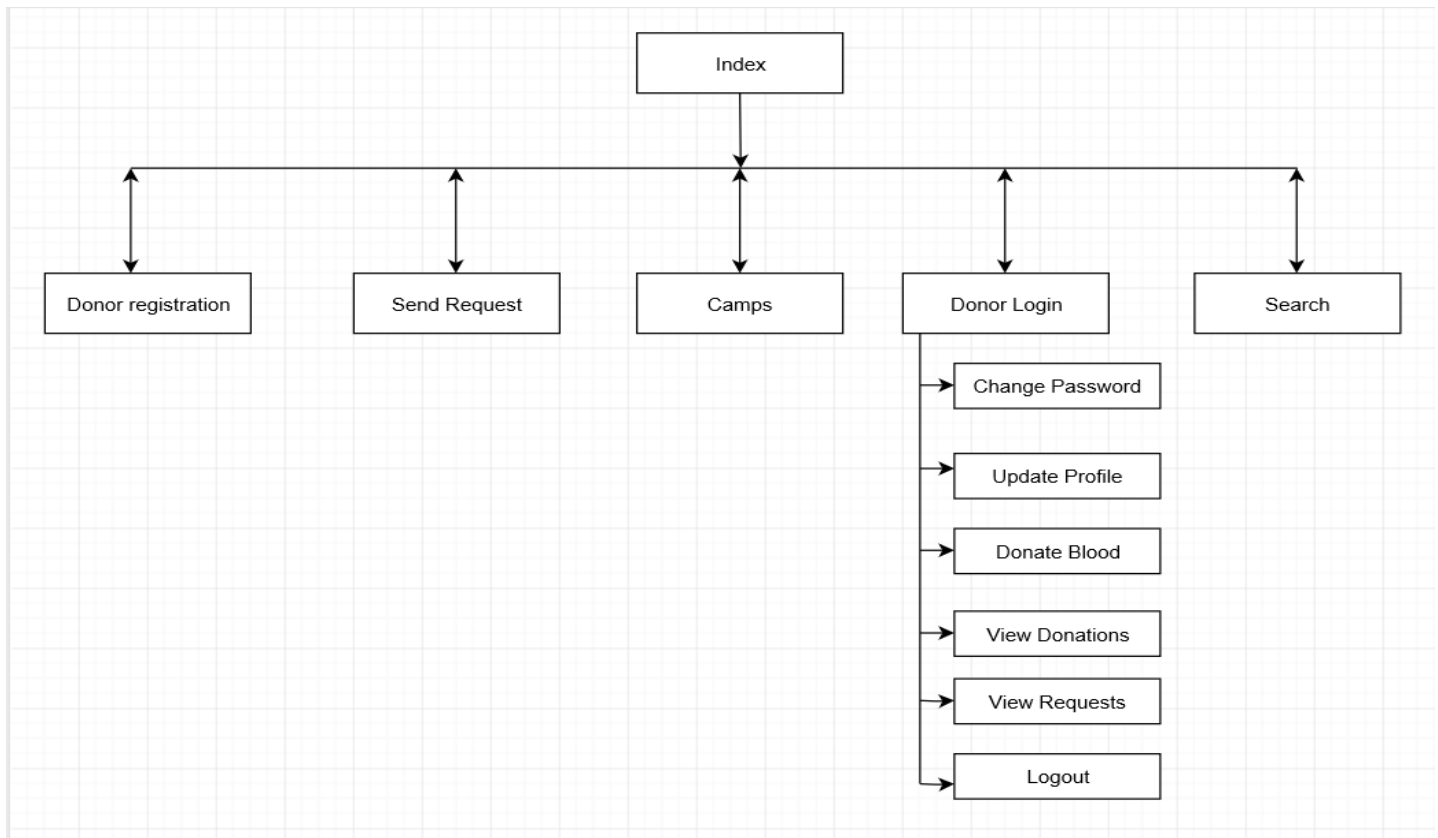


Figure 7: Navigation from Home Page

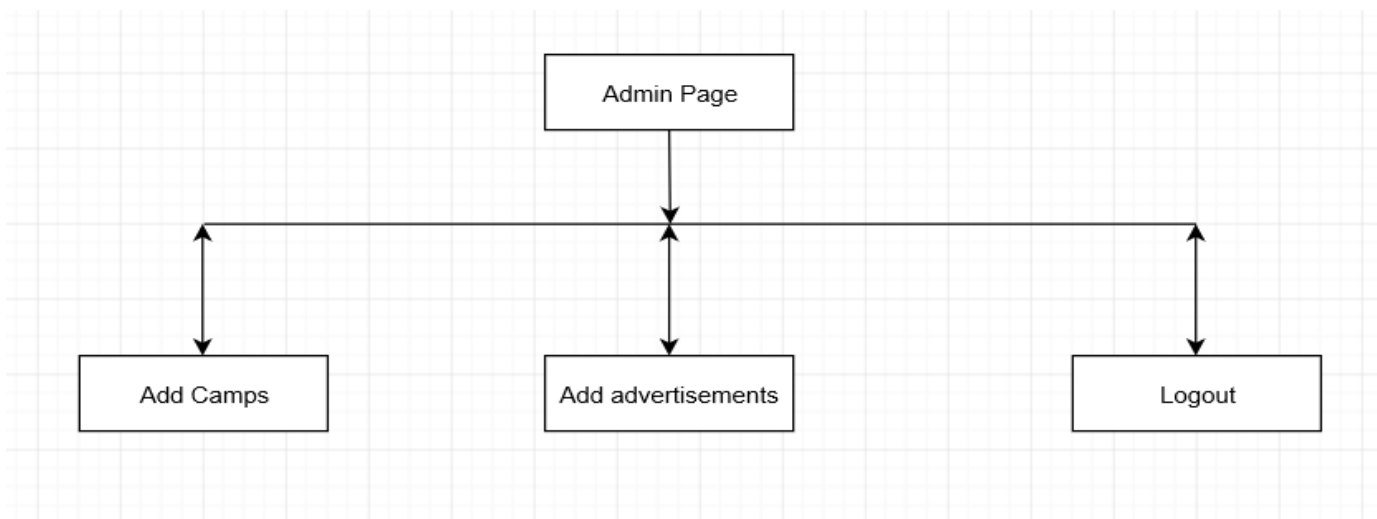


Figure 8: Navigation from Admin Panel

Sequence Diagrams:

A sequence diagram shows object interactions arranged in time sequence. It depicts the objects and classes involved in the scenario and the sequence of messages exchanged between the objects needed to carry out the functionality of the scenario. Sequence diagrams are typically associated with use case realizations in the Logical View of the system under development. Sequence diagrams are sometimes called event diagrams or event scenarios.

A sequence diagram shows, as parallel vertical lines (*lifelines*), different processes or objects that live simultaneously, and, as horizontal arrows, the messages exchanged between them, in the order in which they occur. This allows the specification of simple runtime scenarios in a graphical manner.

Figure 9: Donor Login

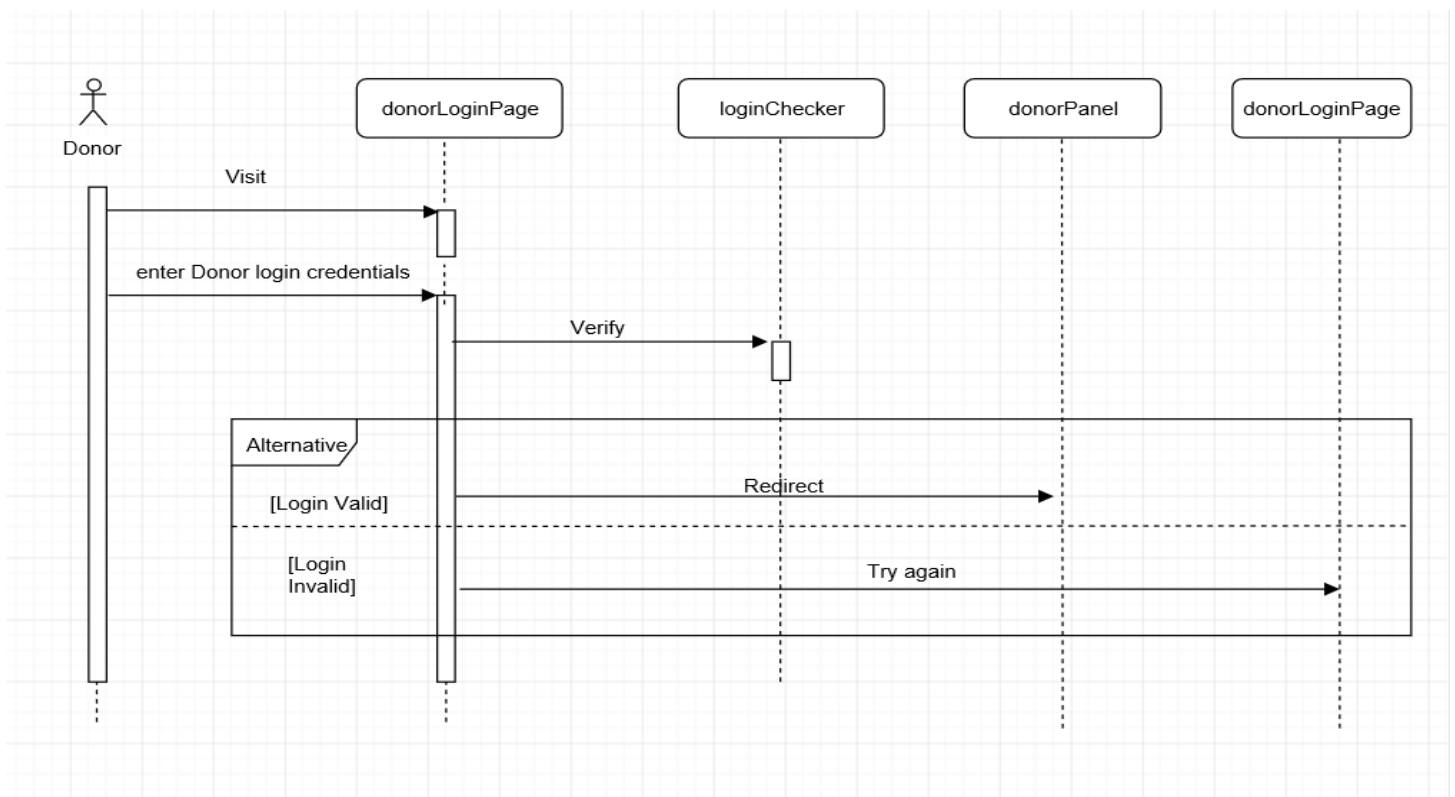
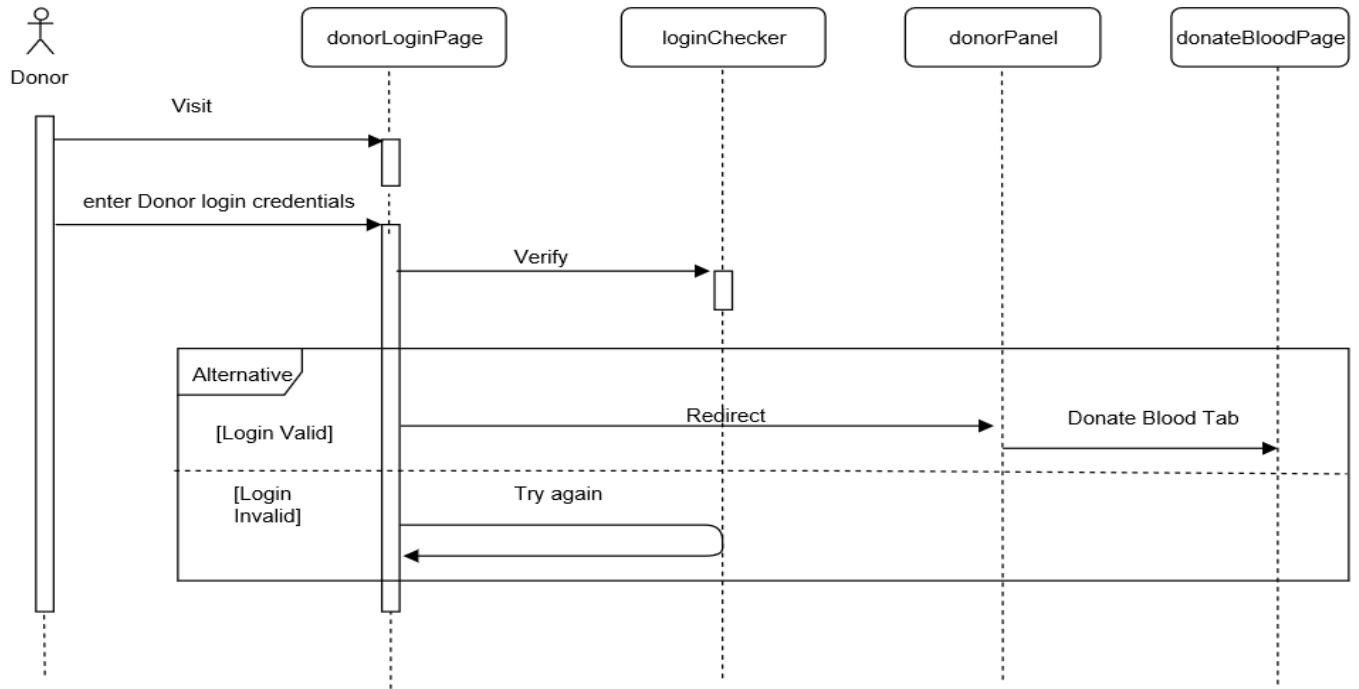


Figure 10: Donate blood action



Entity-Relationship Diagram:

An entity relationship diagram (ERD) shows the relationships of entity sets stored in a database. An entity in this context is a component of data. In other words, ER diagrams illustrate the logical structure of databases.

In software engineering, an ER model is commonly formed to represent things that a business needs to remember in order to perform business processes. Consequently, the ER model becomes an abstract data model, that defines a data or information structure which can be implemented in a database, typically a relational database.

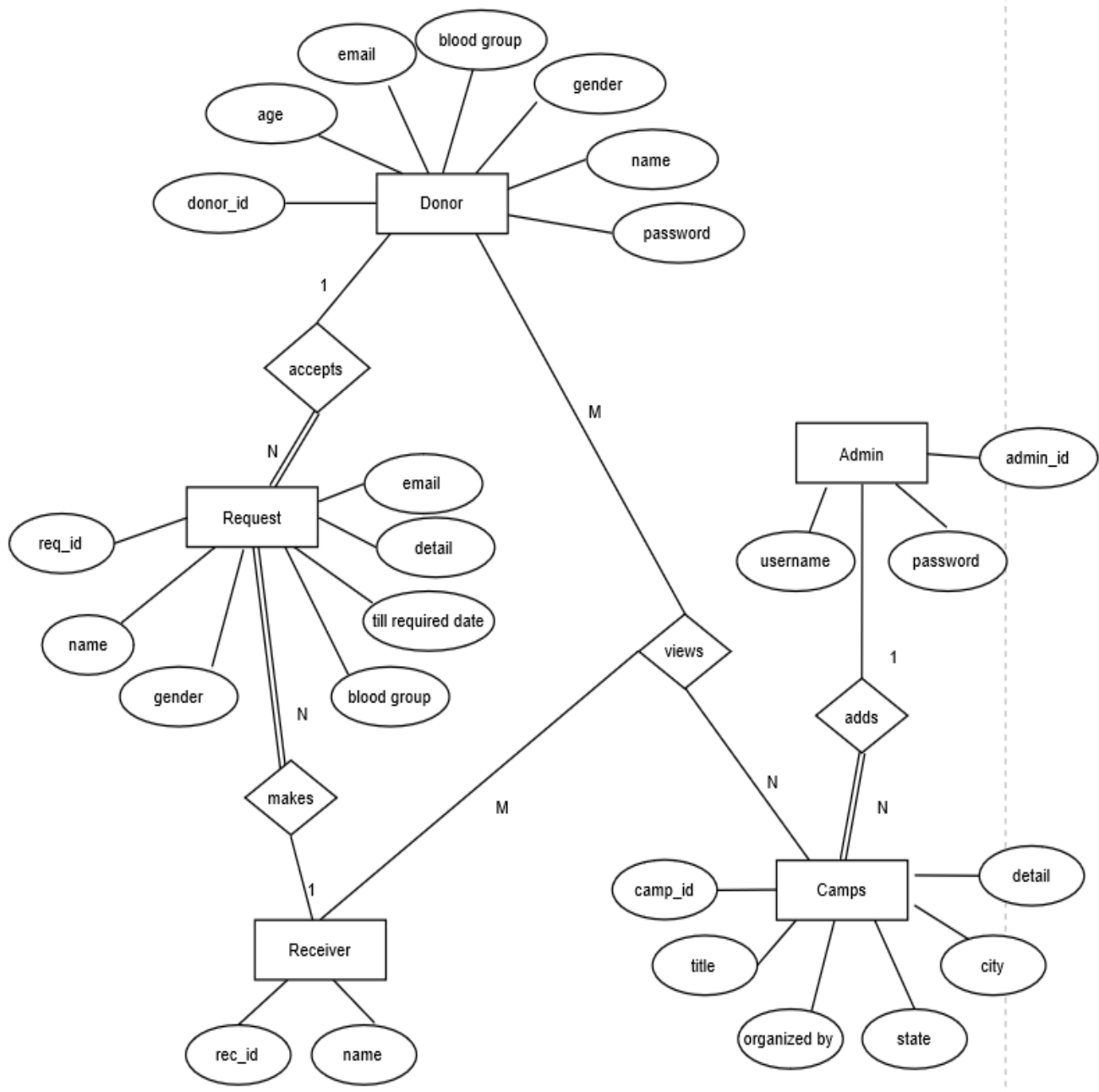


Figure 11: Entity Relationship Diagram for Blood Bank Management System