

SOLUTION DOCUMENT

National COVID Management System

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1. Introduction

The “National COVID Management System (NCMS)” is an application which can manage health care system of the Wakanda Island during the COVID 19 pandemic. Through the application patients having symptoms can register and allocate hospital beds. Hospital staff can keep track of the patients & bed allocations through the application. Ministry of Health (Administration) can monitor the patient & hospital statistics.

Furthermore, the software needs Internet connection to fetch and display results. All system information is maintained in a database, which is located on a web-server. The application also has the capability of representing both summary and detailed information about the patients, hospitals & waiting queue.

1.1. Proposed Solution

This system will consist of one web application. All the users (citizens, hospital staff, doctors and MoH) can login using their credentials and use the specified features. The web application will communicate with database through the web server in order to store and query the data.

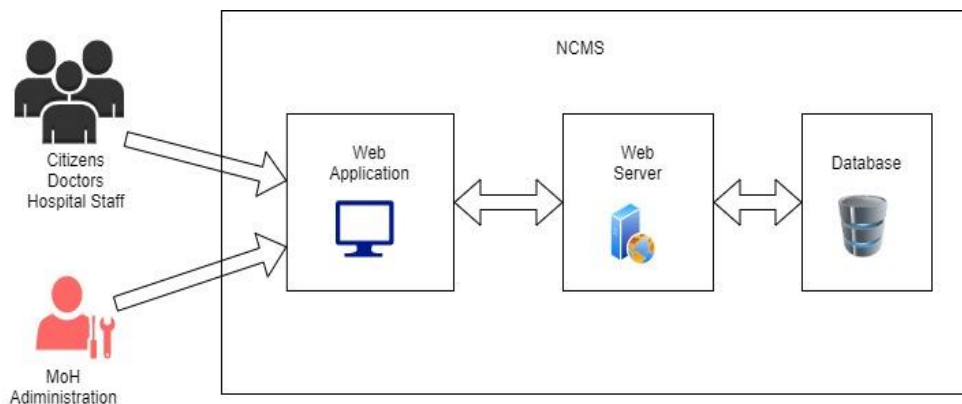


Figure 1: High-level Overview

2. Use Case Diagram

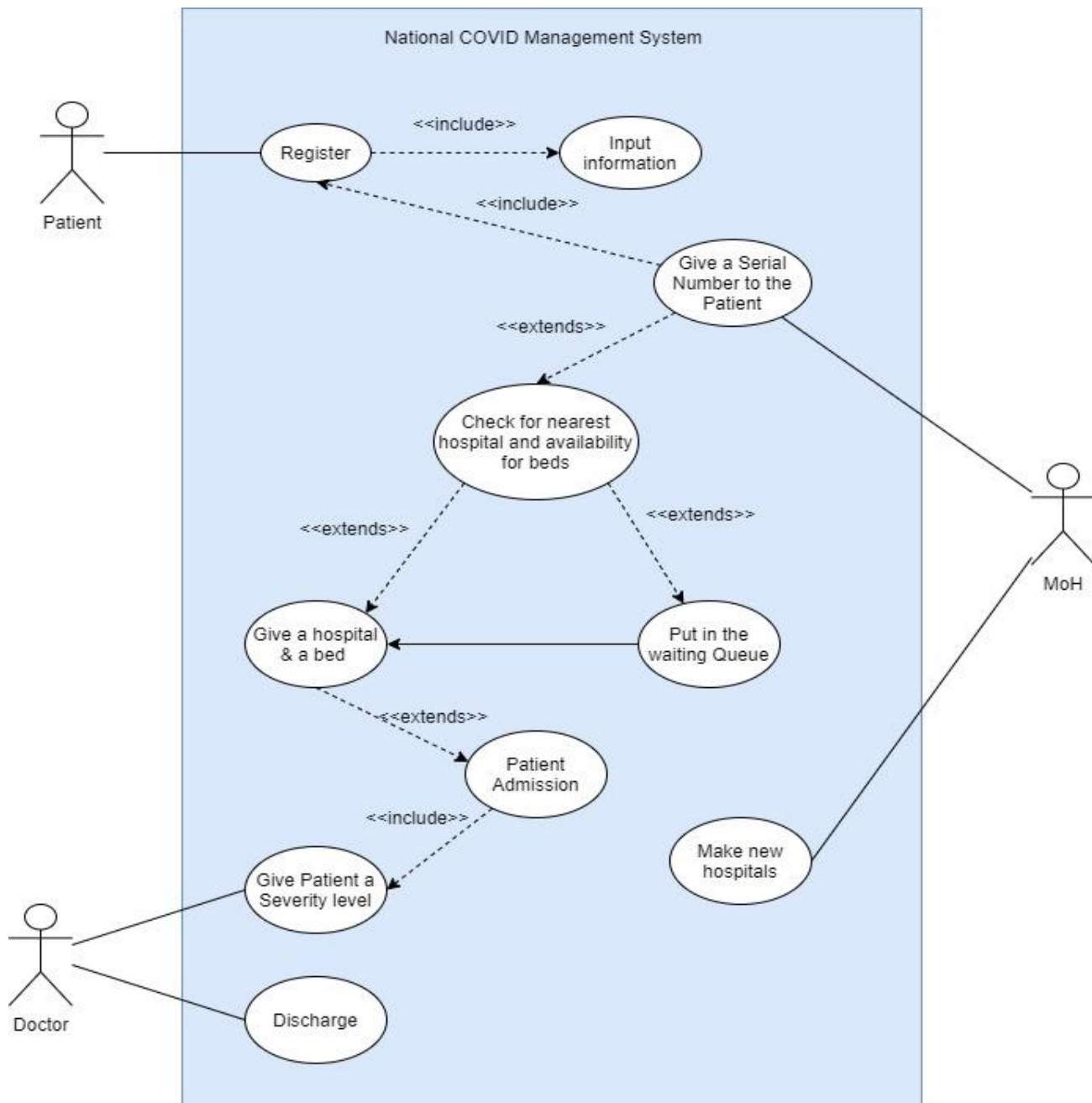


Figure 2: Use case Diagram

3. Sequence Diagram

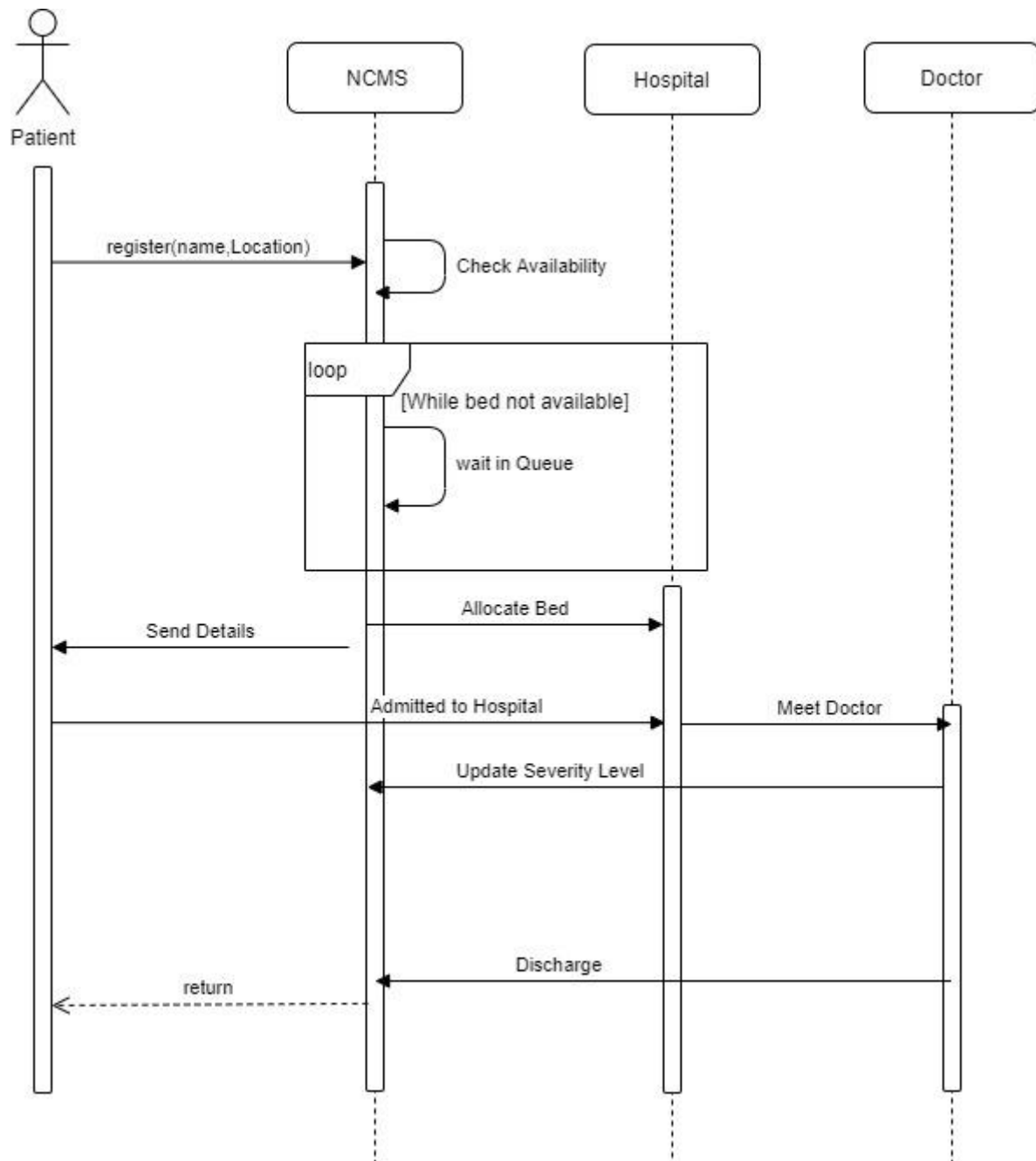


Figure 3: Sequence Diagram

4. User Interfaces

4.1. Interface 1 – Home Page

- All Users can access the web application and login by selecting specific role. All the users can view patient statistics without login.
- Citizens can register as a new patient.

LOGO **National COVID Management System** Search

Home Hospitals Doctors Contact

Patient Statistics

Daily Updates : Country Level, District Level

Overall Patients :

Register Patient

Name

Location :

X Y

Register

Login

☐ MoH Admin
☐ Hospital
☒ **Doctors**
☐ Citizen

Line 1

Line 1

Login

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External Links


Figure 4: Interface of Home Page

4.2. Interface 2 – Informing the Patient about bed allocation

- After a patient's registration, if there are beds available the patient will be notified with the Serial number, allocated Hospital and Bed number.

LOGO

National COVID Management System

Search 

Home

Hospitals

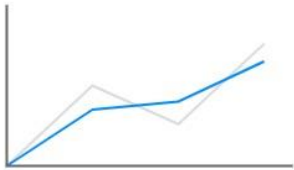
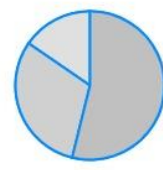
Doctors

Contact

Patient Statistics

Daily Updates : Country Level,District Level

Overall Patients :

Successful Registration

Patient Name :

Serial Number :

Hospital :

Bed No :

Continue

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External Links

Figure 5 : Interface for Informing the Patient about bed allocation

4.3. Interface 3 – Informing the Patient about adding to the queue

- After a patient's registration, if there aren't beds available the patient will be added to the queue and notified with queue details.

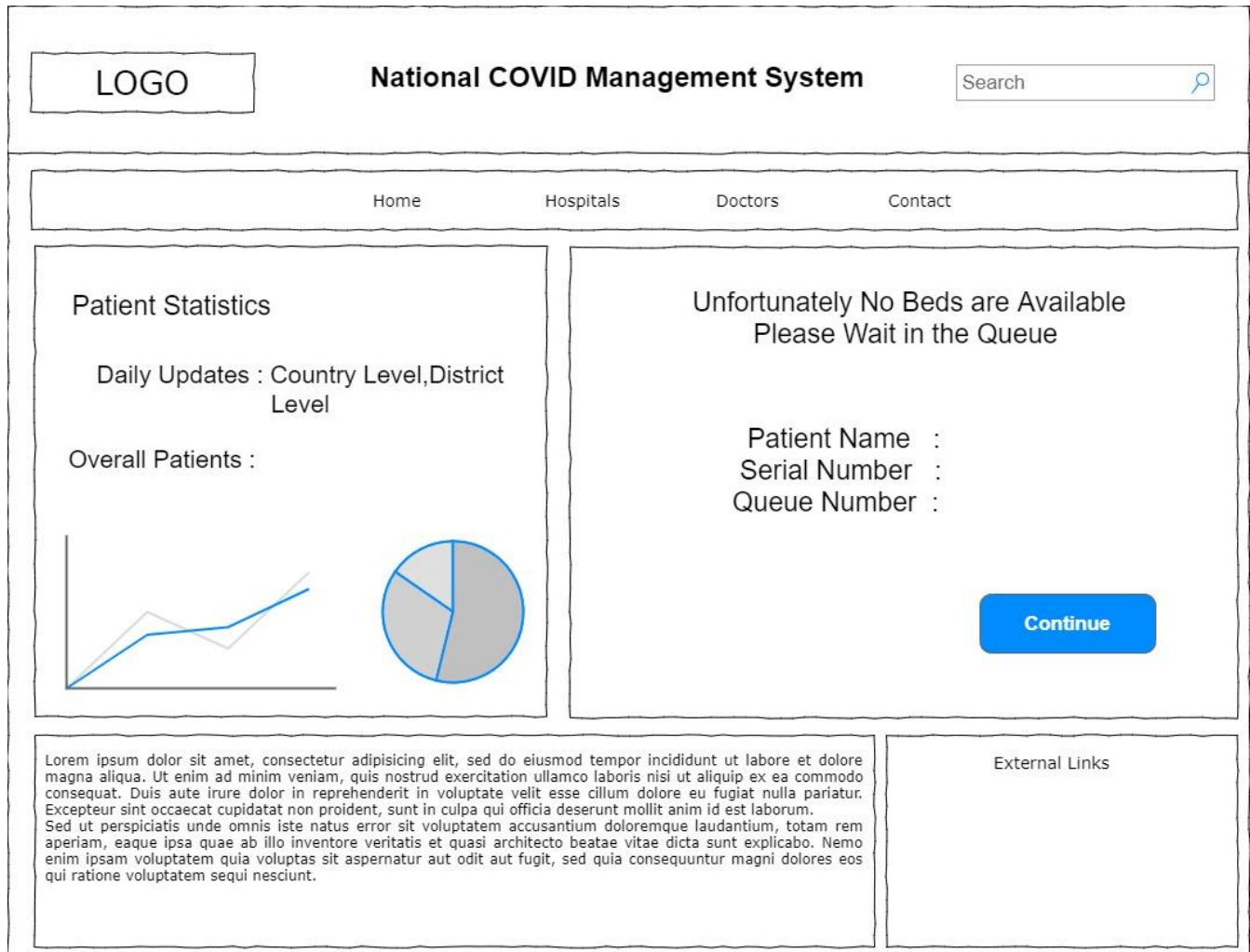


Figure 6: Interface for Informing the Patient about adding to the queue

4.4. Interface 4 – For Hospital staff and Doctors

- Through this interface hospital staff and Doctors can monitor the current details of Patients getting treatments in the particular Hospital.
- Doctors can discharge patients.
- Also they can monitor queue details.

LOGO

National COVID Management System

Search

HomeHospitalsDoctorsContact

Hospital "X" - District "Y"

Date of Admission	Serial Number	Bed No	Name	Location	Severity level	Discharge
2021-04-18	01	01	Damsy	100,100	Low	Discharge

Queue Details

Queue Number	Serial Number	Location
01	05	200,200

Figure 7:Interface for Hospital staff and Doctors

4.5. Interface 5 – For Ministry of Health

- Through this interface MoH can monitor Patient, Hospital and Queue statistics

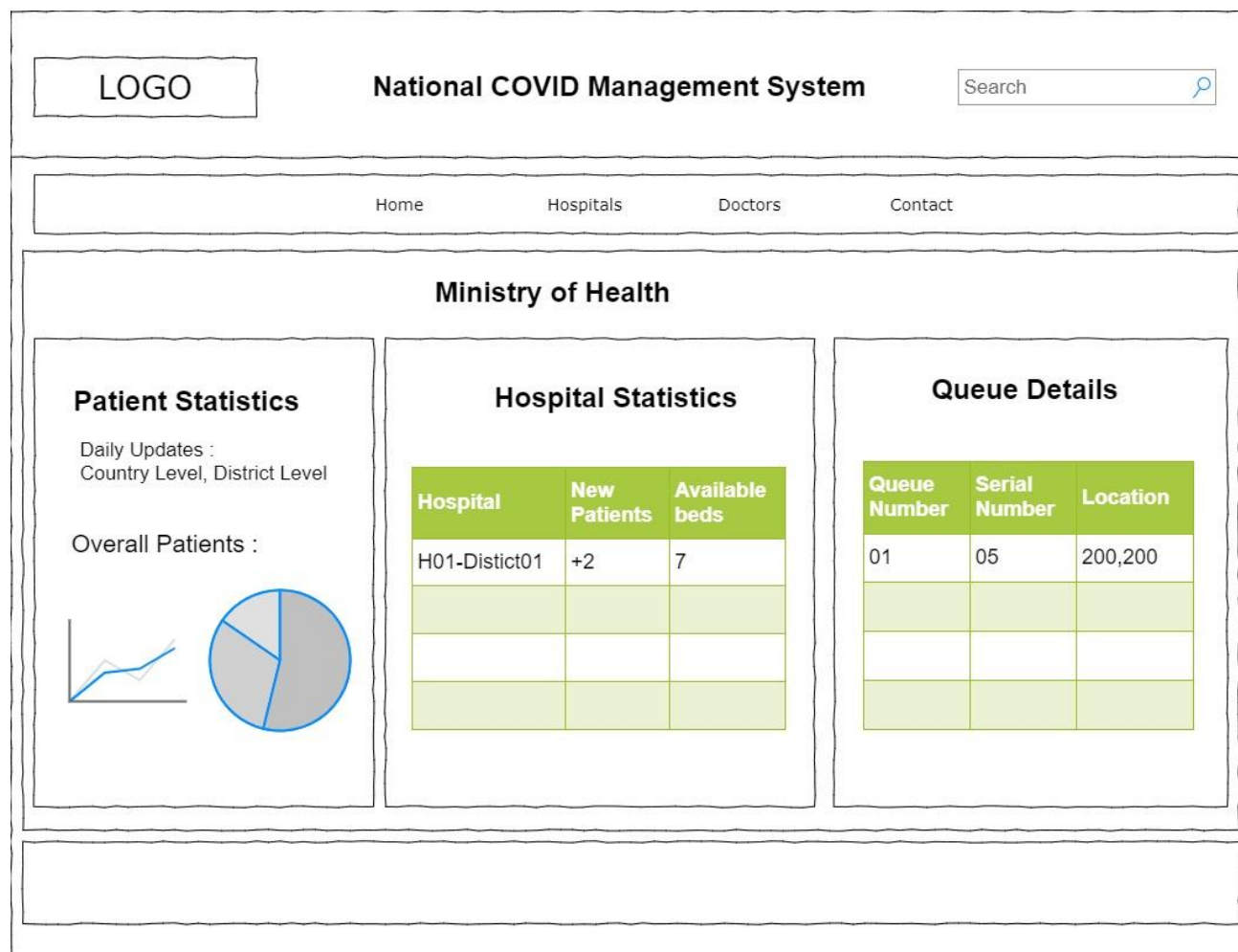


Figure 8: Interface for Ministry of Health