



Data Warehouse Management of Hospitals Using Cloud Computing

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Abstract: Hospital play a vital in the healthcare system by delivering crucial health services to patients Healthcare systems all across the world have struggled to respond to patients with varying degrees of disease severity. The globe is now fighting a pandemic known as COVID-19. This pandemic creates an increase in disease spread due to fluctuating patient demand, which may compromise hospital capacity and general functioning, with hazards increasing depending on hospital location, medical personnel, patient, and healthcare procedure. People got panic when they reach the hospital and they do not get bed there and urgently the patient needs to refer to another hospital. To deal with the challenges of the COVID-19 pandemic, and other such situation where bed will not be available in hospital, hospitals must have completed their preparations before these events occur.

I. INTRODUCTION

Pandemic has taught us there can be anything in the world as we have seen in pandemic that many people, we're not able to have bed in hospitals. There was no proper data of available bed in the hospital. Many people need to have their treatment at home due to improper management of beds. So here, we can up with an innovative idea where our system will collect data from each hospital regarding beds and their availability in hospital also it will collect the data of patient and their disease. Well after collection of data our system will analyse and check the availability of bed in particular hospital and whenever the new patient will come, we can easily check it online which hospital have bed for their patients.

II. NEED FOR THE SYSTEM

During past several decades, the hospital management system is supposed to maintain manual handling of all the hospital daily activities. The manual handling of the record is time consuming and highly prone to error to improve the performance of the hospital management system, the computerized hospital management system is to be undertaken. The computerized hospital project is fully computerized and user friendly even that any of the hospital's members can see the patient's report and the doctor report. The basic need of the project is efficiency.

Hardware Requirements: - • Windows 7 or above.

- Minimum 4GB RAM, 13 processor or Dual Core
- 70 GB Free space required.

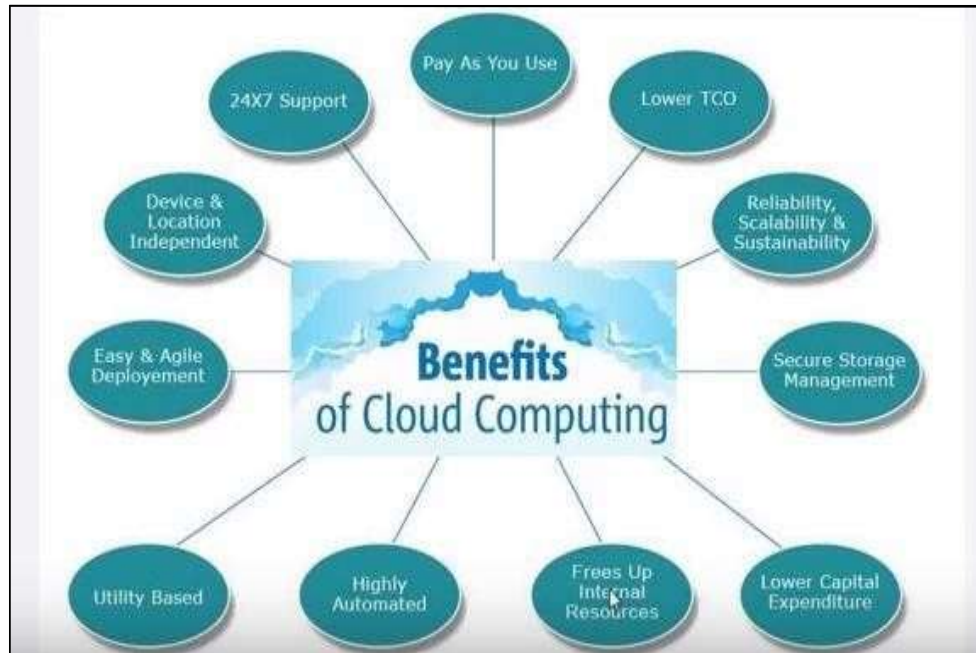
Software Requirements: - 1. PyCharm

2. VS Code
3. Python Anywhere Cloud
4. Django 5. MySQL

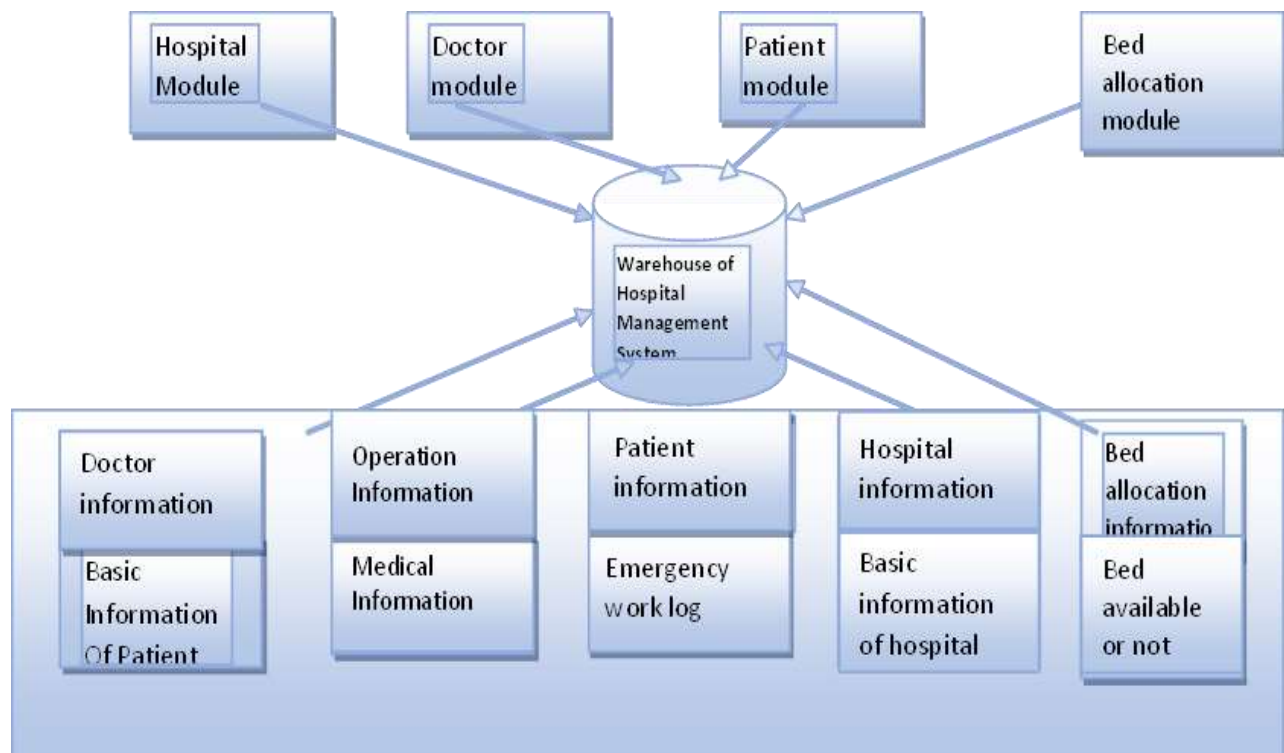
III. BENEFITS OF CLOUD COMPUTING

- Pay as you use
- Lower TCO
- Reliability scalability and sustainability
- Secure storage management

- Lower capital expungement
- Frees up internal resources
- Highly automated
- Utility based
- Review of Literature



IV. BASIC ARCHITECTURE



CONFIGURATION:

```

appdirs==1.4.4
asgiref==3.3.1
black==20.8b1
click==7.1.2
Django==3.1.6
Django-filter==2.4.0
Django-multiselectfield==0.1.12
Mypy-extensions==0.4.3
Pathspec==0.8.1
Pytz==2020.4
Regex==2020.11.13
Sqlparse==0.4.1
Toml==0.10.2
Typed-ast==1.4.1
Typing-extensions==3.7.4.3
Psychopg2==2.8.6
Gunicorn==20.0.4
Whitenoise==5.2.0

```

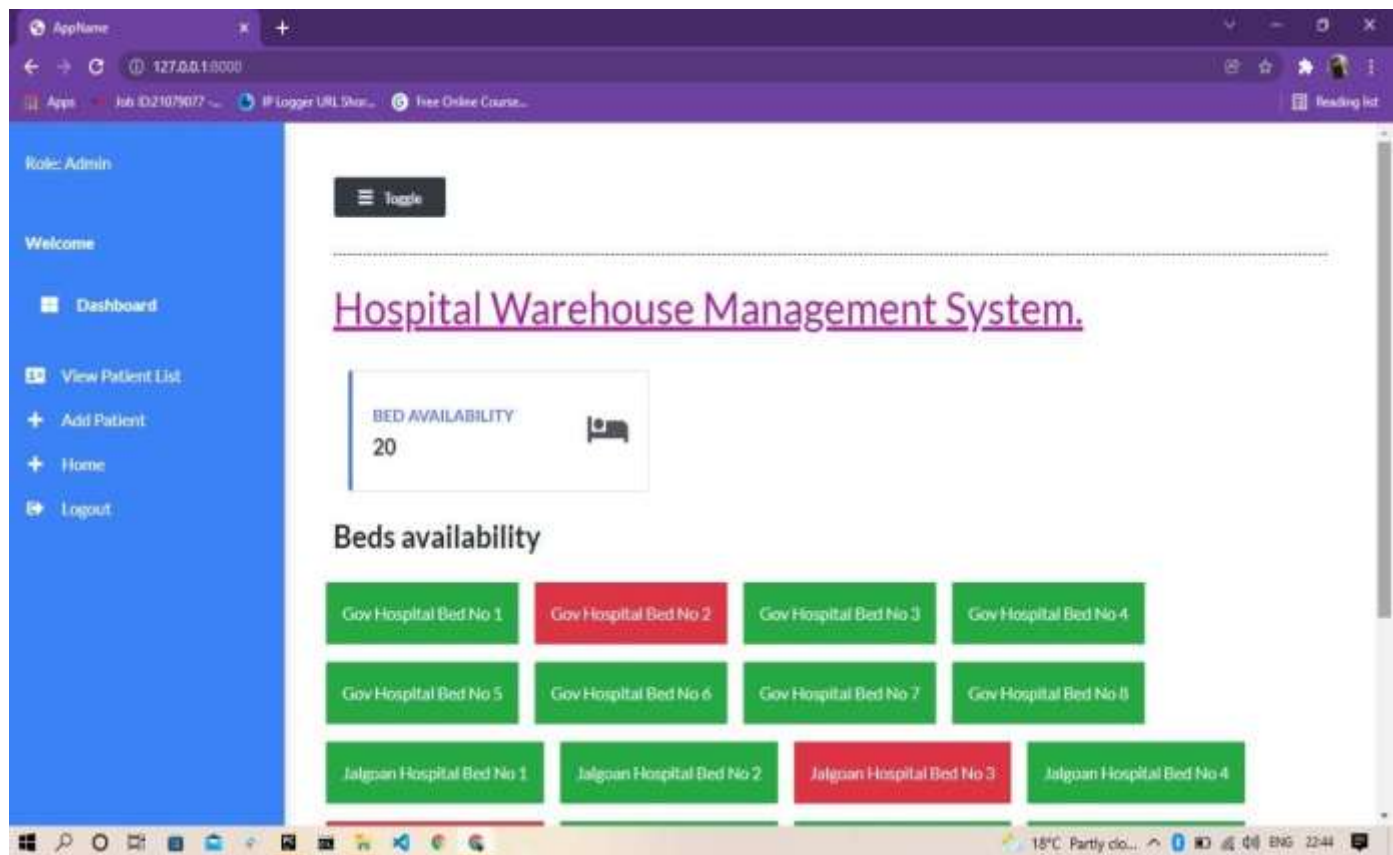
The screenshot shows a web browser window with the URL `127.0.0.1:8000/add_patient/`. The browser's address bar and tabs are visible at the top. The web application has a blue sidebar on the left with the following elements:

- Role: Admin
- Welcome
- Dashboard (with a menu icon)
- View Patient List (with a list icon)
- Add Patient (with a plus icon)
- Home (with a plus icon)
- Logout (with a logout icon)

The main content area is titled "Add Patients" and contains the following form fields:

- Name (text input)
- Phone no. (text input)
- Relative's name (text input)
- Relative's contact (text input)
- Address (text input)
- Prior ailments if any, eg: Diabetes, Thyroid (text input)
- Gov Hospital Bed No 1 (dropdown menu)
- dd-mm-yyyy (date input)

The Windows taskbar is visible at the bottom of the screen, showing the system clock as 18°C, Partly do..., 0, ENG, 22:44.



V. RESULT

People will be as we to see which hospital have bed available for their patient and they do not need to wonder many hospitals when any emergency accusers this system will help many people for fast bed access in hospital. Also, patient details will be saved along with the doctor assign to him. After collection of data our system will analyses and check the availability of bed in particular hospital and whenever the new patient will come, we can easily check it online which hospital have bed for their patients. This will enhance treatment culture among many hospitals by make bed available and emergency.

VI. CONCLUSION

In the changing world, we are here to bring one small change for the patients which faces many problems regarding availability of bed in hospital. So, we camp up with this solution which will let people see all the available of bed and patient details on one portal. Also, it will be helpful for hospital to track the record of patients along with the disease they are facing. This would be the incisive in technical to fight against the pandemic. Since this system essential for maintaining detail about the Doctor, Patient etc. we understand that by using this system the work became very easy and we save lot of time. Hospital administrators would be able to update all the details on dashboard of system. This will help many new patients to register to particular hospitals which have bed available in the hospital. This would enable to improve the response time to the demands of patient care because it automates the process of collecting, collating and retrieving patient information.

References

- [1]. Kohn L, Corrigan J, Donaldson M, Committee on Quality of Health Care in America IoM, editors. *To Err Is Human: Building a Safer Health System*. Washington, D.C.: National Academy Press; 1999.
- [2]. Shania K G, Duncan BW, McDonald KM, Wachter RM. *Making Health Care Safer: A Critical Analysis of Patient Safety Practices*. Evidence Report/Technology Assessment No. 43 (Prepared by the University of California at San FranciscoStanford Evidence-based Practice Centre under Contract No. 290-97-0013).
- [3]. *Measuring the Quality of Health Care: "A statement of the National Roundtable on Healthcare Quality Division of Healthcare Services"*: National Academy Press; 1999.
- [4]. *Envisioning the National Health Care Quality Report* Washington D.C.: Institute of Medicine; 2001. 5) EMBASE In. *The Netherlands: Elsevier Science Publishers B.V.*