**ST. XAVIER’S COLLEGE**

Affiliated to Tribhuvan University

**MAITIGHAR, KATHMANDU**

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**FINAL YEAR PROJECT**

**ON**

**EASY HOSPITAL**

For the partial fulfillment of the requirement for the degree of Bachelor of Science in Computer Science and Information Technology awarded by Tribhuvan University

**Under the supervision of**

**“Bal Krishna Subedi”**

**Lecturer**

**Submitted by**

**Atul Nepal (T.U. Roll No. 5996/14)**

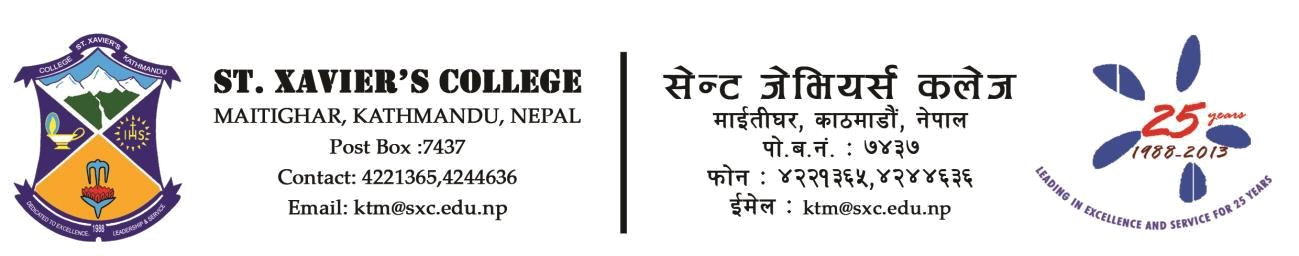
**Submitted to**

**ST. XAVIER’S COLLEGE**

**Department of Computer Science**

**Maitighar, Kathmandu, Nepal**

**June 8th,2017**

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**CERTIFICATE OF APPROVAL**

The undersigned certify that they have read and recommended to the Department of Computer Science for acceptance, a project proposal entitled “EASY HOSPITAL” submitted by **Atul Nepal** For the partial fulfillment of the requirement for the degree of Bachelor of Science in Computer Science and Information Technology awarded by Tribhuvan University.

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Supervisor Name

Supervisor /Lecturer

St. Xavier’s College

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Vishnu Kumar Rana

Head of the Department

Department of Computer Science

St. Xavier’s College

**ABSTRACT**

Hospitals are essential part if our lives, providing best medical facilities to people suffering from various illness, which may be due to climate change in climatic conditions, increase in work load, emotional trauma stress etc. It is necessary for hospitals to keep track of day-to-day activities, records of its patients, doctors, nurses, ward boys, and office staffs personals that keep the hospital running smoothly and successfully.

But keeping track of all of these activities and their records on paper is very cumbersome task and error prone also there are also place for biased ness not to mention the environmental hazard of papers and chemicals. There is no effective sharing mechanism of data among people and the data will not be properly backed up. Manual data analysis is another hassle backing down the system.

Thus, the main aim of our project is to provide a higher turnover rate of patients and making common hospital tasks efficient so that the bottleneck of manual task may never be the problem so that more patients can take benefits of service.

Hospital being the most important organ of society. Life of people are invaluable; we are obliged to make quality of hospital the best as far as possible. We may able to save people’s money and many other benefits. For greater glory of the world.

*Keywords: All-purpose hospital management system, Communication, Enterprises application, Efficiency, Time saving.*

**PROBLEM STATEMENT**

For Hospital Management Administration there is problem of keeping track of every aspects of the hospital, doctors, nurses, lab workers and special workers. Human resource management in day to day have to manage and record all of them, which is very repetitive.

For Staff members, doctors and nurses there is no systematic way to communicate with each other as a group except form physical meeting. The process of transferring message form top level to person of contact and very long and indirect at times. Reporting to every person in hospital is hard and his or her main function is to focus in patients not the management. Another common problem that they are facing is they are not able to access the information of their patients anytime, anywhere in the world. The focus of these people are diverting away from their main work.

For Patients, if there is one word that would explain how most of patients are feeling is hassle. Being honest we as patients want to get best of the features as we can get in our level even if that means to ruin our all day to get fifteen minutes of doctor’s appointment. Speaking of hassle patient’s record book. It would be very easy if a system that keeps all the records including medical prescription on our mobile devices so that we can access those important list of medicine anywhere in the world where there is internet access.

In Nepal, according to data form NDHS and DOHS in 2010:

* 60% of children have suffered from diarrhoeal disease
* 88% have suffered from acute respiratory tract infection
* 41% of children are stunted
* 54 in 1000 child die before age of 5 (KC, 2017)

**OBJECTIVES OF PROJECT**

Step up from past is the main objective of easy hospital project. Upgrading is needed badly in hospitals or clinics in our society. Other objectives are:

* To computerize all details regarding patient details & hospital details.
* Scheduling the appointment of patient with doctors to make it convenient for both.
* Scheduling the services of specialized doctors and emergency properly so that facilities provided by hospital are utilized in effective and efficient manner.
* If the medical store issues medicines to patients, it should reduce the stock status of the medical store and vice-versa.
* It should be able to handle the test reports of patients conducted in the pathology lab of the hospital.
* The inventory should be updated automatically whenever a transaction is made.
* The information of the patients should be kept up to date and there record should be kept in the system for historical purposes.
* Information of patient history should be accessible to patients.
* Medicine prescription authorized by doctor should be available to patients anywhere and anytime.

**SIGNIFICANCE OF PROJECT**

As mentioned earlier, the project has many significances for the hospital administration, all peoples working in the hospital and the patients of the hospital. Most important aspect of this project is that this will make hospital system efficient.

Some other importances of this project are:

* In Nepal, there is a serious need of proper all in one hospital management system.
* Better communications among all the candidates involved with hospital
* Increase in efficiency of hospitals and thus can check up more number of patients
* Increase in rate of giving service and thus increase in profit.
* Reducing the wastage of time for patients from waiting for appointment.
* Reducing cost of management.

**METHODOLOGY**

1. **Primary Data Collection:**

Primary data will be collected from surveys, and visiting directly to Vayodha Hospital Pvt. Ltd and Norvic Hospital.

1. **Secondary Data Collection:**

Secondary data will be collected from case studies of previous years, books, and pdfs, newspaper articles, websites etc.

I will be using these programming languages:

* php(with laravel framework)
* web stack( HTML ,CSS and JavaScript with suitable libraries)
* MySQL

Webserver:

WAMPx64 , 64 bit local server

IDE:

JetBrains PhpStorm 2017.1.1x64

**LITERATURE REVIEW**

According to Dr. Rachita in her blog, she states that, The IT system has revolutionized the field of medicine. In this fast-paced world of medicine, it is a daunting task to manage a multi-specialty hospital. A hospital management system (HMS) is a computer or web based system that facilitates managing the functioning of the hospital or any medical set up. A HMS has section for various sections that makes up hospitals namely: Doctors, Patient information, Staffs, Occupancy, Staffs, Billing, Supplies control, Insurance, Laboratory/Radiology, Employees, Telehealth care and Statistical Reports. (Dr. Rachita Narsaria, 2015)

There are many enterprise levels Hospital management system throughout the world and is rapidly growing past years. Quanta V2.0 is an enterprise level hospital management system targeted for specialized hospitals. (Birlamedisoft Pvt. Ltd). Acgil a software company also has a Hospital management system (HMS) with all the common facilities and features with a good-looking interface made in ASP. A good implementation of all in one HMS is the one made by practo with features like booking appointments, lab test, ordering medicine, online consultancy and many more. This company also has a mobile app for both ios and android. (Practo) Unfortunately, this service is not available in Nepal. In Nepal, there is a hospital management system, which is sold to organizations, but it does not do any part in terms of patient’s end. (softgriha)

**DELIVERABLES**

Easy Hospital is a system, which helps patients to know information about their appointment, medical record etc. Human Resource of the hospital will have full authority (Read and write) whereas patients and other hospital staffs only have permission to read. Everyone can post and send message to one another. All the information's are stored in database. Apache server, PHP7 and MY SQL are installed in server space so that it will be friendly to webpages and applications. Every staffs members will be provided username and password so that they can update information's from anywhere throughout the country. This product is very useful for the society of this era. This product can help hospitals to run smoothly. Patients can easily access and get in contact with their respective doctors to get idea and concept regarding their problems. This will definitely help to minimize the cost of doctor fees. It can bring revolutionary healthy society that we haven’t seen yet.

**TIME SCHEDULE/GANTT CHART**

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| --- | --- | --- | --- |
| Task | Start Date | Duration | End Date |
| Project Planning | 13-Jun | 7 | 20-Jun |
| Data collection and Analysis | 21-Jun | 14 | 5-Jul |
| Database Design | 6-Jul | 14 | 20-Jul |
| Frontend Design | 21-Jul | 30 | 21-Aug |
| Backend design | 21-Jul | 60 | 21-Sep |
| Testing and Debugging | 21-Aug | 30 | 21-Sep |
| Implementation of Software | 22-Sep | 7 | 1-Oct |

# References

Birlamedisoft Pvt. Ltd. (n.d.). *Why should you choose Quanta V2.0*. Retrieved from quanta-his: http://www.quanta-his.com/Why-you-should-choose-Quanta-WebHIMS-Industrial-version.pdf

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