

International Journal of Innovative Research in Science, Engineering and Technology

(An ISO 3297: 2007 Certified Organization)

Vol. 5, Issue 11, November 2016

A Survey on Online Doctor Appointment System with Automatic Health Prediction Using Data Mining

Shoubhik Banerjee¹, Swarnadeep Sarkar², Souvik Roy³.

UG Student, Dept. of Computer Science And Engineering, Birbhum Institute of Engineering and Technology, Suri,
Birbhum, West Bengal, India

ABSTRACT: Generally, data mining (sometimes called data or knowledge discovery) is the process of analyzing data from different perspectives and summarizing it into useful information - information that can be used to increase revenue, cuts costs, or both. Data mining software is one of a number of analytical tools for analyzing data. It allows users to analyze data from many different dimensions or angles, categorize it, and summarize the relationships identified. Technically, data mining is the process of finding correlations or patterns among dozens of fields in large relational databases.

KEYWORDS: Data Mining, Health Prediction, Online Doctor Appointment System, Website Using php.

I. INTRODUCTION

Data mining is primarily used today by companies with a strong consumer focus - retail, financial, communication, and marketing organizations. It enables these companies to determine relationships among "internal" factors such as price, product positioning, or staff skills, and "external" factors such as economic indicators, competition, and customer demographics. And, it enables them to determine the impact on sales, customer satisfaction, and corporate profits. Finally, it enables them to "drill down" into summary information to view detail transactional data.

II. RELATED WORK

Data

Data are any facts, numbers, or text that can be processed by a computer. Today, organizations are accumulating vast and growing amounts of data in different formats and different databases. This includes:

- operational or transactional data such as, sales, cost, inventory, payroll, and accounting
- nonoperational data, such as industry sales, forecast data, and macro economic data
- meta data - data about the data itself, such as logical database design or data dictionary definitions.

Information

The patterns, associations, or relationships among all this *data* can provide *information*. For example, analysis of retail point of sale transaction data can yield information on which products are selling and when.

Knowledge

Information can be converted into *knowledge* about historical patterns and future trends. For example, summary information on retail supermarket sales can be analyzed in light of promotional efforts to provide knowledge of consumer buying behavior. Thus, a manufacturer or retailer could determine which items are most susceptible to promotional efforts.

International Journal of Innovative Research in Science, Engineering and Technology

(An ISO 3297: 2007 Certified Organization)

Vol. 5, Issue 11, November 2016

And similarly, in this project we have tried to make an website which is able to process the given symptoms(i.e. Data) to predict the diseases(i.e Information) and with its association the system can also give the available Doctor' s details(i.e. Knowledge) , purely based on the predicated diseases And then the patient is allowed to proceed through appointments.

Meanwhile, the " clinic admin" is responsible to maintain the complete website.

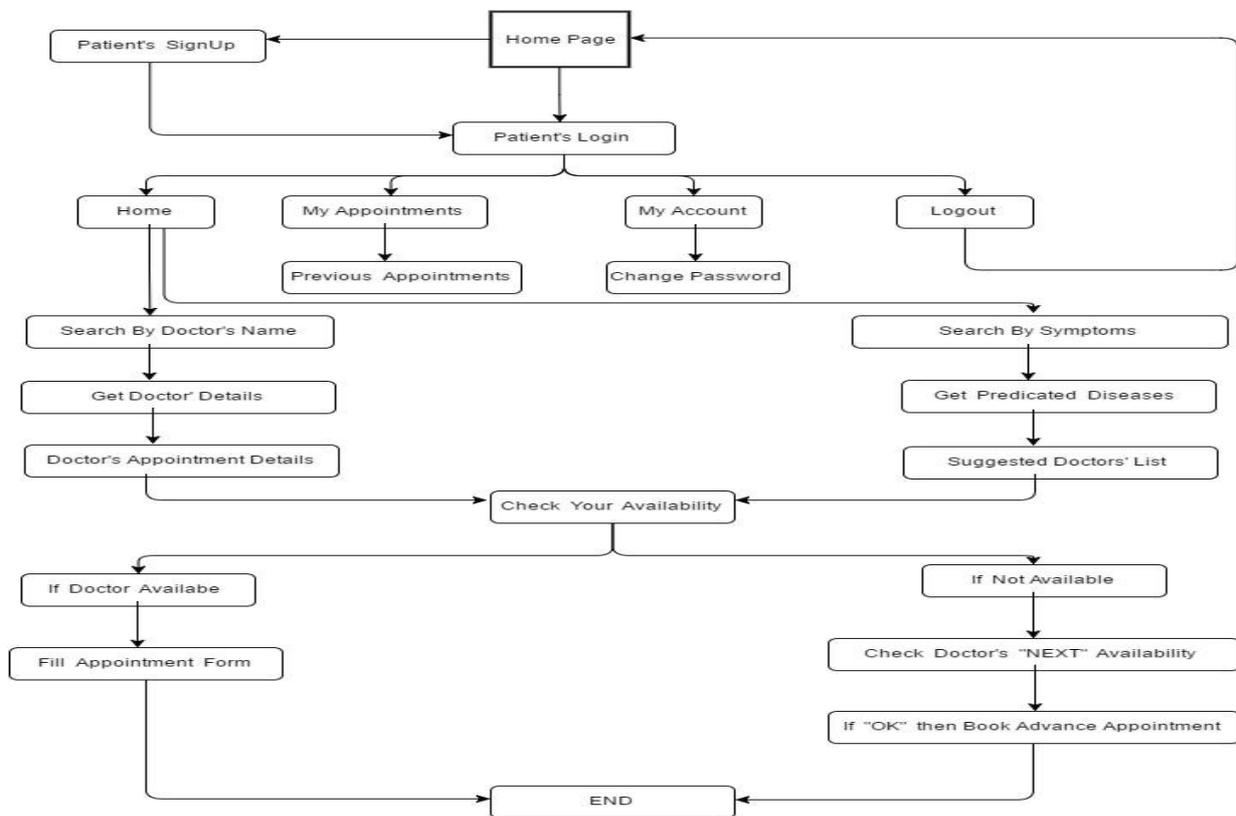
III. SYSTEM FLOW DIAGRAM.

The below System Flow Diagram shows what kind of information will be input to and output from the system, where the data will come from and go to, and where the data will be stored. It gives a clear idea about the whole process, say it an application or a normal data flow.

The first diagram states the flow control of the patient (user) side, where all the steps that is to be followed by the user in order to book an appointment. The diagram includes :

- a) Patient's Logine) See Previous Appointments
- b) Home page
- c) Search By Symptoms / Search By Doctor's Name
- d) Place appointment
- f)Change Password, etc

 Patient (User) Side System Flow Diagram



International Journal of Innovative Research in Science, Engineering and Technology

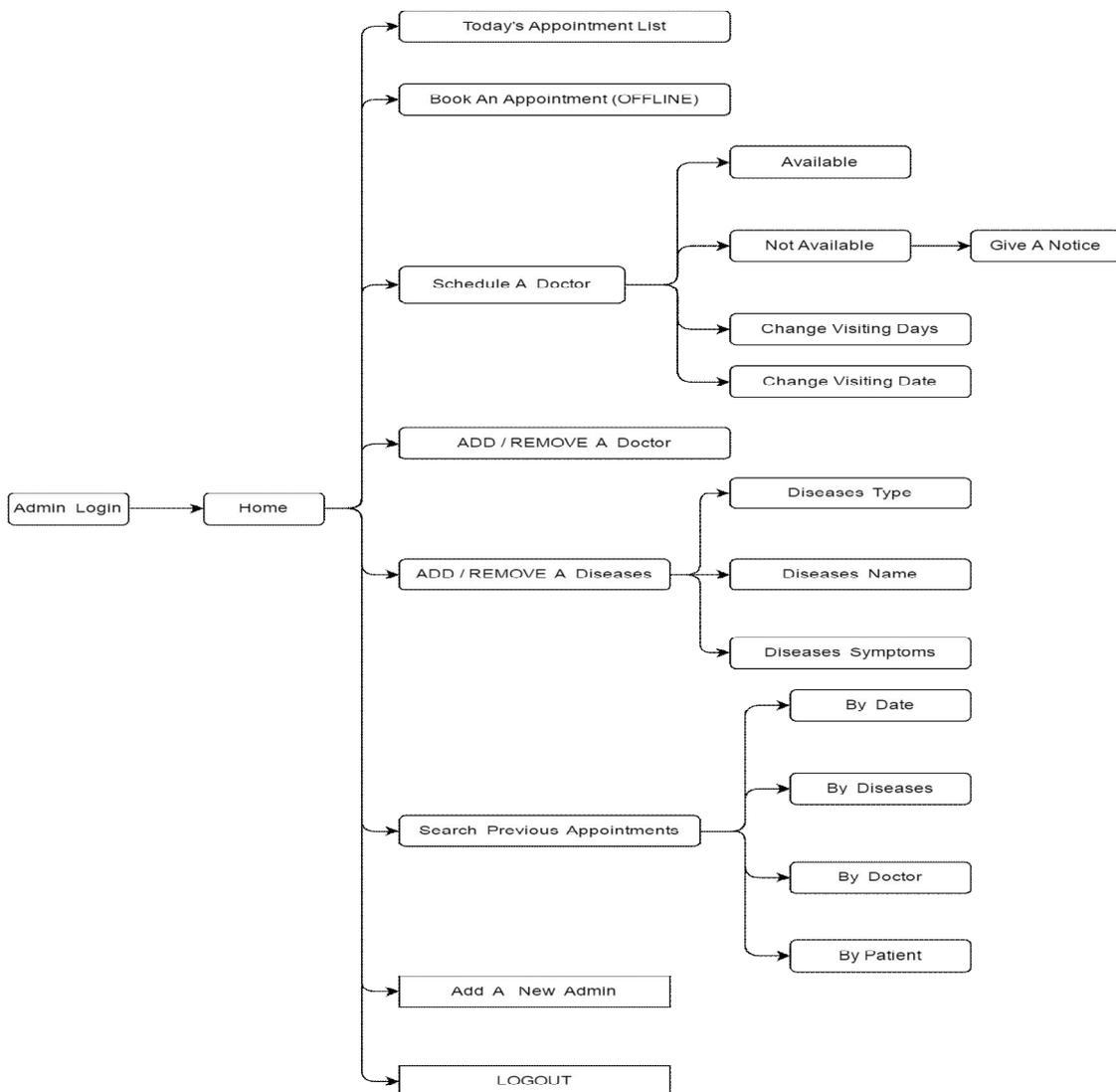
(An ISO 3297: 2007 Certified Organization)

Vol. 5, Issue 11, November 2016

The Second System Flow Diagram is basically about the controls of the “Clinic Admin”, which basically includes :

- a) See Appointments b) Book an Appointment (OFFLINE) c) Configure a Doctor
- d) Configure Diseases e) See Previous Appointments f) Configure an Admin

Clinic Admin System Flow Diagram



International Journal of Innovative Research in Science, Engineering and Technology

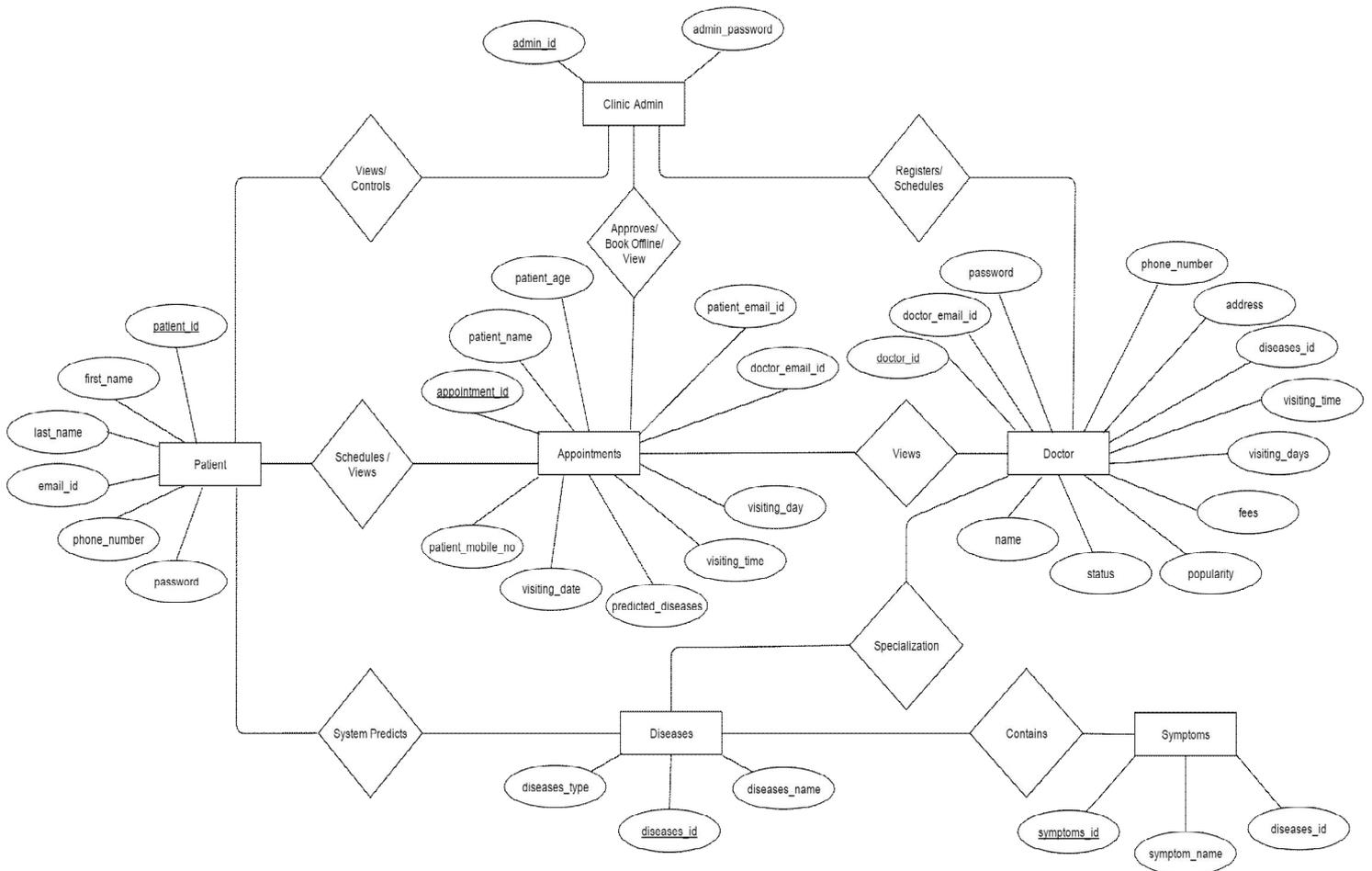
(An ISO 3297: 2007 Certified Organization)

Vol. 5, Issue 11, November 2016

IV. ENTITY RELATIONSHIP DIAGRAM

An entity-relationship model (ER model) describes inter-related things of interest in a specific domain of knowledge which states the back-end i.e. database of the entire system and the relationship between each tables and their respective attributes.

 Entity - Relationship Diagram



V. SYSTEM REQUIREMENTS

For Development :

- ✓ Coding - Dreamweaver .OS - Linux/Mac/Windows, etc.
- ✓ Fontend - HTML, CSS, Bootstrap, Javascript.
- ✓ Backend -php, MySql.

For Running :

- Browser - Chrome/Mizilla, etc.
- Active Internet Connection.

International Journal of Innovative Research in Science, Engineering and Technology

(An ISO 3297: 2007 Certified Organization)

Vol. 5, Issue 11, November 2016

VI. CONCLUSION

The trend of application of data mining in healthcare today is increased because the health sector is rich with information and data mining has become a necessity. Healthcare organizations generate and collect large volumes of information to a daily basis. Use of information technology enables automation of data mining and knowledge that help bring some interesting patterns which means eliminating manual tasks and easy data extraction directly from electronic records, electronic transfer system that will secure medical records, save lives and reduce the cost of medical services as well as enabling early detection of infectious diseases on the basis of advanced data collection. Data mining can enable healthcare organizations to anticipate trends in the patient's medical condition and behaviour proved by analysis of prospects different and by making connections between seemingly unrelated information. The raw data from healthcare organizations are voluminous and heterogeneous. It needs to be collected and stored in organized form and their integration allows the formation unite medical information system. Data mining in health offers unlimited possibilities for analyzing different data models less visible or hidden to common analysis techniques. These patterns can be used by healthcare practitioners to make forecasts, put diagnoses, and set treatments for patients in healthcare organizations.

REFERENCES

- [1] "Introduction to Data Mining" . By Vipin Kumar, Michael Steinbach
- [2] "Data Mining: Concepts and Techniques" . Book by Jiawei Han .
- [3] "Data Mining Techniques" By Arun K Pujari.
- [4] "Data Mining: The Textbook" by Charu C. Aggarwal
- [5] "Data Mining: Concepts and Techniques", Third Edition by Jiawei Han, Micheline Kamber, Jian Pei
- [6] "Data Mining And Analysis" by MeiraZaki
- [7] "Introduction to Data Mining with Case Studies" by Gupta G.K
- [8] "Data Science for Business: What You Need to Know About Data Mining and Data-Analytic Thinking" by Foster Provost & Tom Fawcett
- [9] "Data Smart: Using Data Science to Transform Information into Insight" by John W. Foreman
- [10] "Data Analytics Made Accessible" by Anil Maheshwari
- [11] "Data Science from Scratch: First Principles with Python" by Joel Grus
- [12] "Big Data: Principles and Best Practices of Scalable Realtime Data Systems" by Nathan Marz& James Warren

VII. BIOGRAPHY



Shoubhik Banerjee.

UG Student, Dept. of Computer Science And Engineering, Birbhum Institute of Engineering and Technology, Suri, Birbhum, West Bengal, India .



Swarnadeep Sarkar.

UG Student, Dept. of Computer Science And Engineering, Birbhum Institute of Engineering and Technology, Suri, Birbhum, West Bengal, India .



Souvik Roy.

UG Student, Dept. of Computer Science And Engineering, Birbhum Institute of Engineering and Technology, Suri, Birbhum, West Bengal, India .