Proposed Solution

Problem Statement:

In recent times, data has been submerging every industry in the world. The most tedious task is to preserve the data in the Digit-less format. But after internet and computers came into the picture, it has become very easy to store it in a simple hard-disk, CD-drives and makes it available from anywhere. Though it reduces the paperwork for the industry, but it is no use of storing tones of data without obtaining any information out of it. Data analytics is booming day-to-day in the world. It just simply takes the raw-data and converts it into the useful [High Information gain data].In hospitals, it is very necessary to keep track of patient data for future references and treatment. But storing data can not only yield better results, process it and get the useful data out of the raw-data is the prominent matter. We propose a solution to analyze the health-care data and derive the useful insights to patient and doctor to help them in a friendly manner.

Solution Description:

We propose a solution to build a simple web application which takes input as patient-data and returns us output with the useful analysis with the help of the IBM Cognos analytical tool. It can be done intuitively by the end user, there will be tour guide to make use of it and derive the relevant results out of the raw data. The user regardless of patient or doctor, the input data will be fetch into the web app and it runs the results at the backend by lending the help of IBM Cloud. The results will be displayed to the end user in the form of interactive dashboard, story and in report format.

Novelty in solution:

The innovative and additional perk to make this solution more stronger and the results more reliable,we use Machine learning algorithms to develop a predictive analysis model which will be used to make predictions either on the patient health-status or the necessary input data. Along with the dashboard, prediction for this results will be shown in the user friendly-manner. The more sophisticated algorithms such as Random forest classifier or the Model Boosting may implemented to process the input data. Although the graphical manner is the more convenient to understand the results. The predictive analysis on the input data can yield better results, if we choose the right set of input and train it in more optimized way, the results can be accurate and works effectively in the health-care Industry.

Feasibility in solution:

The solution can be implemented, scaled and maintained in a web page or cloud datastorage handily. It is not much of a complex programs involved in this project, that is hard to handle. The Cognos tool will take care of the Dashboard, it is working with the help of the backend cloud. The ML algorithms for predictive analysis can easily be scaled in a web app. It can be conveniently done with the support of the cloud base.

Business Model:

The take-away of this project in a business scope of manner is mean to be plenty, it can be beneficial for the users(Patients and Doctors) more intriguing way. It is in need for the community of people, where it comes to handy in day-to-day life. It is a part of the live saving analysis and insights. Doctor are used to treat the patients and keep their medical history in hands for future references. But when it comes to analysis, it can only result as burden in their shoulders. If they have a system to analyze the reports and derive the insights out of it, they tends to get it from the vendor for their own organization improvement.

Social Impact:

The solution can never go unnoticed, though it is new to the society, because it is in a proactive way of analysis and prediction. It will address the concern of the key stakeholders, so it will create the impact in the customer as well as the social side. It is new to the hospital environment, there has not been any kind of project are implemented in the recent years. It takes input as patient data and fetch with the necessary output data. This can be more productive when it comes to deployment and maintaining . It will not cost much of the user money, a effective analysis with the efficient budget.

Scalability of solution:

Scalability is the measure of the system performance against the increase or decrease in user demand. The system can handle the user request and return the results on time. It does not require much of the Graphical processor unit, it can be even run on the system with the

minimum graphics or system with integrated graphics. It make use of the backend cloud graphics and switch its resources according to the user demands. The user can check the results in their smartphones also by accessing the simple web page.