

DAB 304 HEALTHCARE ANALYTICS: PROJECT PROPOSAL

Introduction:

- Healthcare Analytics is the process of analysing current and historical industry data to predict trends, improve outreach, and even better manage the spread of diseases. The field covers a broad range of businesses and offers insights on both the macro and micro level.
- Healthcare Analytics deals with the health-related data of the patients, their medical history, cost while staying in hospital, data related to hospital management, diagnosis of patients and the record of treatment related to that diagnosis of the diseases.

Project Topic, data set Description, planning and vision:

- Our dataset cites the causes of brain-stroke and different types of brain-strokes. There are different reasons due to which brain-stroke occurs such as hypertension, recurring heart disease, the type of work people does, obesity, recurring disease such as diabetes, and smoking. It contains 11 columns and around 5000 rows.
- We are planning to do Exploratory Data Analysis and Descriptive Analysis on the causes of brain-stroke based on our data with the help of various Machine learning concepts and we are also going to make various predictions on the causes of brain-stroke and also one can avoid such situation by following healthy life. Further, to support our predictions we are also going to build an interactive dashboard using the concepts of Tableau.
- We do feel that our project topic is connected to our course because, we are studying course based on healthcare analytics and our topic is a part of healthcare so, for this project we are going to apply theoretical knowledge which we will gain from our course into practise.

Motivation:

- The main motive behind our project is that when we were looking various data to select for our project at that time, we were reading different health articles and blogs on google, from their one of our team members came to know about brain-stroke data.
- Further, when we looked into that article, we were amazed to read that brain-stroke is a kind of disease that is known from so many years but, majority of the people is not aware about the disease itself, it's causes and its immediate symptoms. So, we thought we should focus on this topic to bring awareness in the society about this deadly disease if not treated on time.
- This is the motive behind our selection of this topic for our project.

Evaluation:

- All the group members will get the hands-on experience to apply theoretical concepts of this course to solve real-world problem.
- We will consider our efforts to make this project successful when anyone will be able to derive the main motive of our project from the analysis and the dashboard we will provide.
- Our main task is to complete our project on time and in a manner in which anyone can understand it and also, we have to do our best to protect people's sensitive medical data.

Resources:

- We are going to use various concepts of Python, Machine Learning, Anaconda Navigator and Tableau.
- We used Kaggle for the dataset.

Contributions:

- We have 4 people in our group namely, Vaibhav, Kush, Hiren and Akshar.
- We distributed all work evenly between 4 of us. In which, Kush and Hiren were responsible for the finding various articles, studying them after, that we all make contributions to decide the topic and related dataset. Moreover, after deciding everything Vaibhav and Akshar made this project proposal.

References:

<https://www.kaggle.com/datasets/jillanisofttech/brain-stroke-dataset>

<http://www.google.com>

<https://www.medicalnewstoday.com/articles/7624>