MONITORING SUICIDAL BEHAVIOUR SYSTEM

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Abstract - *Suicide is one of the most serious public health problem that has affected many people all around the world. After being recognized as a public health priority by the WHO (World Health Organization) various It is one of a serious health problem and it is preventable and can be controlled by proper interventions and study in the field of the study is to create a prediction model for individuals who are at higher risk of suicide by studying the different parameters of suicide such as depression, hopelessness, Educational stress etc.*

Key Words: **ID3 algorithm, Apriori algorithm, Python libraries, Behaviour Parameters, Suicide Prevention Solution, Suicide Dataset.**

1. INTRODUCTION

Suicide has been defined as the act of deliberately imposing one's own death. According to WHO around 800,000 people die due to suicide each year and even more number of them attempt suicide. It is ranked among the top causes of death worldwide. It is the second largest cause of suicide among the age group 15-29. It is the 10th leading cause in the US. Risk factors embrace mental disorders, Depression, manic-depressive illness, dementia praecox, temperament disorders, alcohol dependency, or drug misuse. Other areas include impulsive acts due to stress like from monetary issue, relationship troubles, or due to bullying. Ancestor tries of suicide have a higher risk for future tries. More than one lakh lives are lost each year because of suicide in India. Inside the most modern couple of years there has been huge increment in the suicide rates. The rates were the same in 1975 and 1985 around; from 1985 to 1995 there is an ascent of 35% and from 1995 to 2005, the expansion was 5% .Never less, the male-ladylike proportion has around 1.4 to no less than one 1. There is a extensive variety in suicide rates inside the national country. Kerala, Maharashtra, Andhra Tamil and Pradesh Nadu possess a rate of suicide greater than 15 whereas Punjab, Uttar Pradesh, Jammu and Bihar and Kashmir, the rate of suicide is less than 3. This adjustable pattern has been stable for the last twelve years. Higher literacy, a much better reporting program, lower exterior aggression, higher socioeconomic position and higher expectations will be the feasible explanations for the bigger suicide rates in the southern states**.**

2. PROPOSED APPROACH

The system will provide the user interface where the customers have to register and login accordingly. The client can fill data like Name, Address, Email-Id, Password, and so forth. From using Email-Id and Password he can login to site. After effectively login client visits to suicide structure, client needs to enter individual data like age, weakness, name, past history, depression symptoms, and also activity level like how much user does interact with other people in daily life and then will ask about user goal like what he/she wants to do like and also find depression level through the depression Also it will predict whether user will be having any problem in future or not. And based on all this system will generate the solution. The aim of our project is to provide a solution which provide help according the person's age, education status and diseases. The system provides advices about healthy and interesting life. It allows the user to know about his/her actual depression scale information This software reduces the time span and cost for expert advices for suicide. This product diminishes the time.

3. METHODOLOGY

The data is obtained from UK data archive. The data consist the details of 267 Para suicidal patients (aged 16 years or older) who had been seen by the Liaison Psychiatry benefit, Edinburgh. Participants completed the various psychological measures and the given information were recorded. Table 1 contains the list of attributes. Suicidal Ideation was measured using the suicidal ideation subscale of the Suicide Probability Level it consists of suicidal reasons, negative affect, and presence of a suicide plan. The Hospital Anxiety and Depression Scale were used to assess anxiety and depression e.g. "Worrying thoughts {go through my mind. The values hence recorded is then measured on a numerical scale and kept in the database. Table 1 List of attributes in the dataset Variable Label Age Sex Intention to kill oneself? Finding the right data mining technique for prediction by evaluating the different learning methods in WEKA. Depression and anxiety have already been found to be the most effective predictors. It holds various structures covering these

important ones matplot, Matplotlib is a Python plotting library which produces publication quality figures in a variation of hardcopy formats and interactive Python library used for scientific adding and technical computing.

4. ALGORITHM USED

ID3 Algorithm

ID3 is an algorithm formed by Ross Quinlan used to create a decision tree from a dataset.ID3 is the predecessor to the algorithm, and is usually used in the machine learning and language processing domains The ID3 algorithm starts with the unique set as the root node. On each iteration of the algorithm, it iterates through every unique attribute of the set and analyzes the entropy or the information gain of that attribute. The set is then split or partitioned by the particular attribute to generate subsets of the data For example, a node can be distributed into child nodes based upon the subsets of the depression whose ages are less than 20, between 30 and 70 and greater than 100.The algorithm continues to returns on individually subset, considering only attributes never selected before.

5. HOW ALGORITHM IS USED

1. Compute the entropy of each attribute of the information set.

2. Partition the set into subsets using the attribute for which the resulting entropy after splitting is reduced or equally, information gain is maximum.

3. Mark a decision tree node holding that attribute.

4. Recuse on subsets using the remaining attributes.

6. BLOCK DIAGRAM
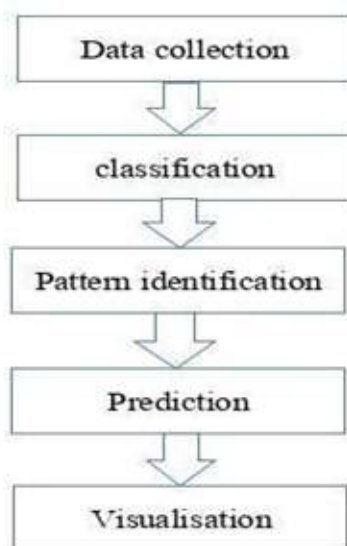
7. RESULT AND DISCUSSION
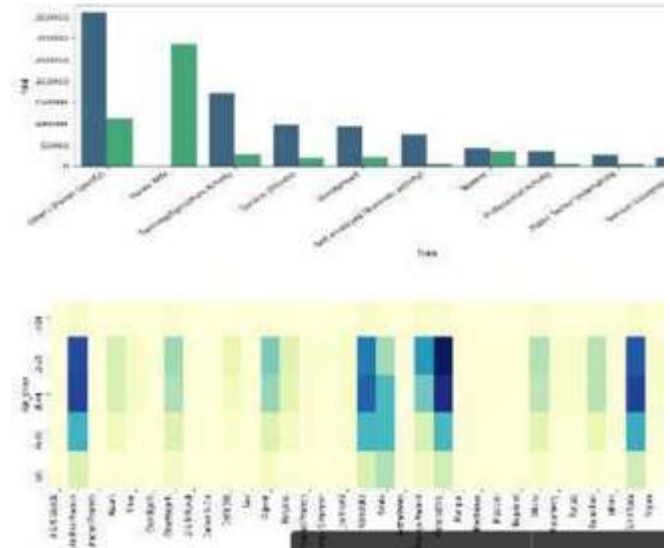
We have implemented system by taking inputs sex, educational status, marital status depression scale and past history then the systems are how much activities we are doing regularly. Then based on this it provide solution. Also it predicts whether user will be having mental issue or not.

8. CONCLUSION

The system is a useful tool for educating users on suicidal related topics with the help of large and reliable database created with help of experts. Many people consult a doctor when in need of a proper solution to go with their advice. Since, our proposal will help the people with the solution to prevent suicide they will not need to visit doctor at earlier stage of depression. The users will be getting solution delivered to their screens for them which will save time as well as money as the services provided by our system will be free of price, unlike other options are available on the market currently. The end- user application will be made on an Android platform and web platform with simple and effective human-device interface. Our application is using data mining so each and every user will get a personalized solution according to their need and preferences.

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