Question 1

We want to define “Retention” and “Churned Customer” -- how would you use data to form these definitions?

Question 2 :

About Dataset

Context

During the time when Machine Learning and Deep Learning are booming so much , it is very important to understand that all this knowledge is not of any use if we can't apply it to different areas and impact humanity.

This dataset will help you apply your existing knowledge to great use. Applying Knowledge to the field of Medical Science and making the task of Physician easy is the main purpose of this dataset. This dataset has 132 parameters on which 42 different types of diseases can be predicted.

All the best !

Content

Complete Dataset consists of 2 CSV files . One of them is training and the other is for testing your model.

Each CSV file has 133 columns. 132 of these columns are symptoms that a person experiences and the last column is the prognosis.

These symptoms are mapped to 42 diseases you can classify these symptoms to.

You are required to train your model on training data and test it on testing data

Training

https://drive.google.com/file/d/1uc6ehaDXi4lMZmhpWyG_FOMUmru7j-2b/view?usp=sharing

Testing

https://drive.google.com/file/d/1ypxJceQ75D4AQcADlB2NYhKD-OtxaKyM/view?usp=sharing

Inspiration

Just make your best effort to make the world a better place by applying all the knowledge you have to different fields.

Deliverables

1. EDA
2. Feature Selection
3. Model Selection
4. Evaluation
5. Productionize the model
    a. Make api on the local server using any framework (Fast Api, Flask)
    b. The api will receive appropriate request parameters and will give the disease prediction as the output

Question 3 :

There are two database tables. Employee and Department.

EMPLOYEE

1. Id (Primary key)
2. Name
3. Dept_id (Foreign Key)
4. Salary

DEPARTMENT

1. Id (Primary key)

2. Name
3. Location

Deliverable :
Write a query to display the names of employees, their salaries and their department who are earning more than the average salary of their department's salary.

Question 4

Imagine there is a white board. The white board has numbers written on it in a random sequence. The numbers are 1 written 10 times (1,1,1,....), 2 written 10 times, 3 written 10 times & 4 written 10 times …….. Till ten times 10. So essentially there are 100 numbers written.

A teacher repeats a set of operations an infinite number of times.
The operations are :

1. Remove any two numbers from the white board for example 6 and 7
2. Sum the two numbers removed in **step 1**, in this example 13
3. Add 1 to the sum calculated in **step 2 in this example 14**
4. Write the Final number obtained in **step 3 (14)** back on the white board.

After the infinite attempts from the teacher, only one number is left on the board.

What is that number? (Please share your working)

Food for thought

You think you know but you don't know because you don't know what you don't know