

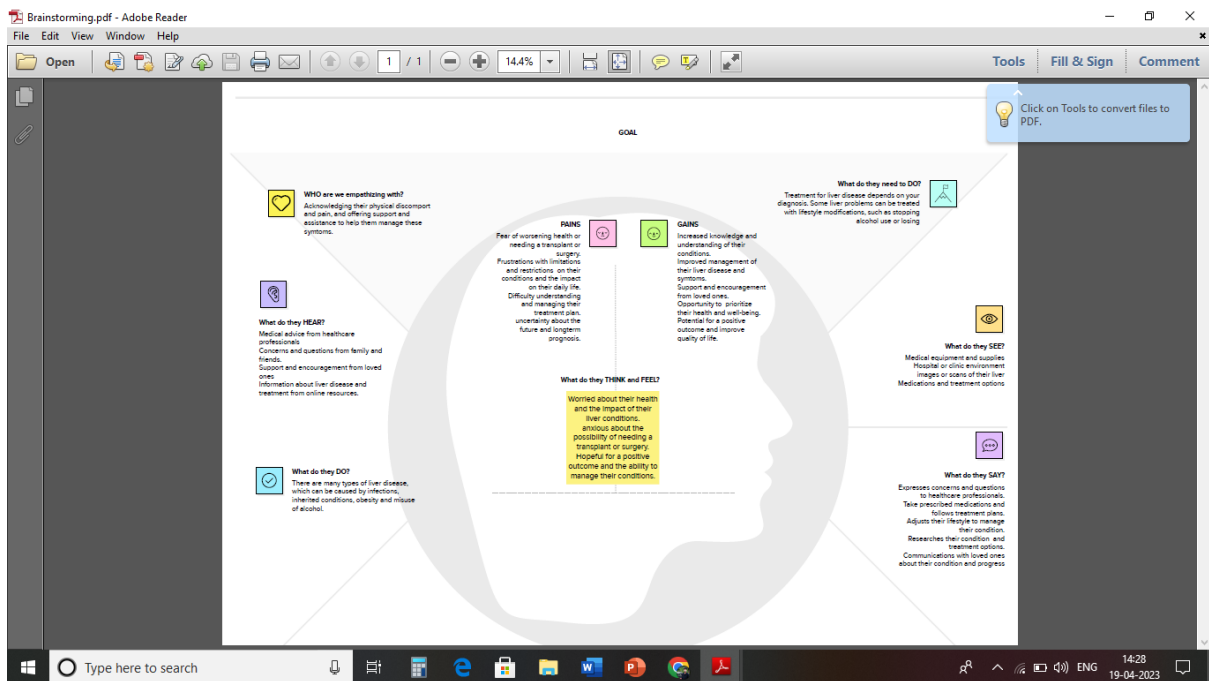
# PROJECT REPORT TEMPLATE

## INTRODUCTION

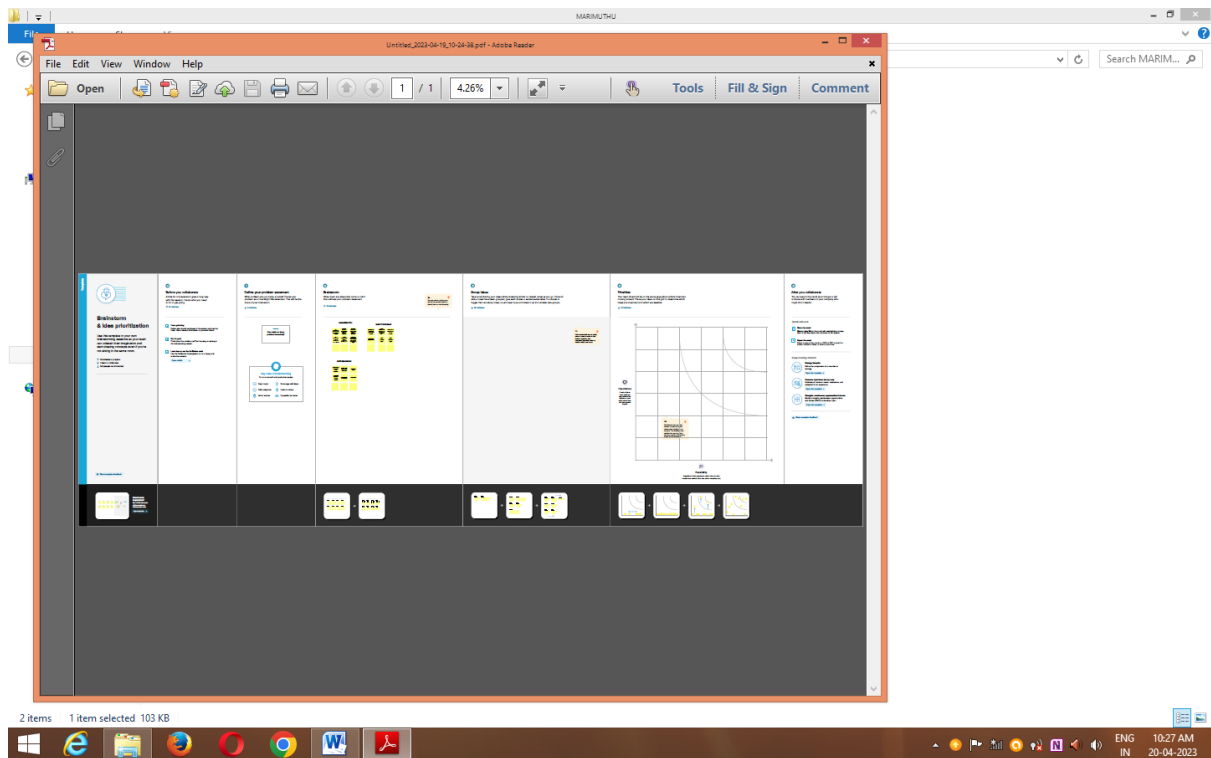
A group of blood tests called liver function tests can be used to diagnose liver disease. Other blood tests can be done to look for specific liver problems or genetic conditions. Imaging tests. An ultrasound, CT scan and MRI can show liver damage.

## PROBLEM DEFINITION & DESIGN THINKING

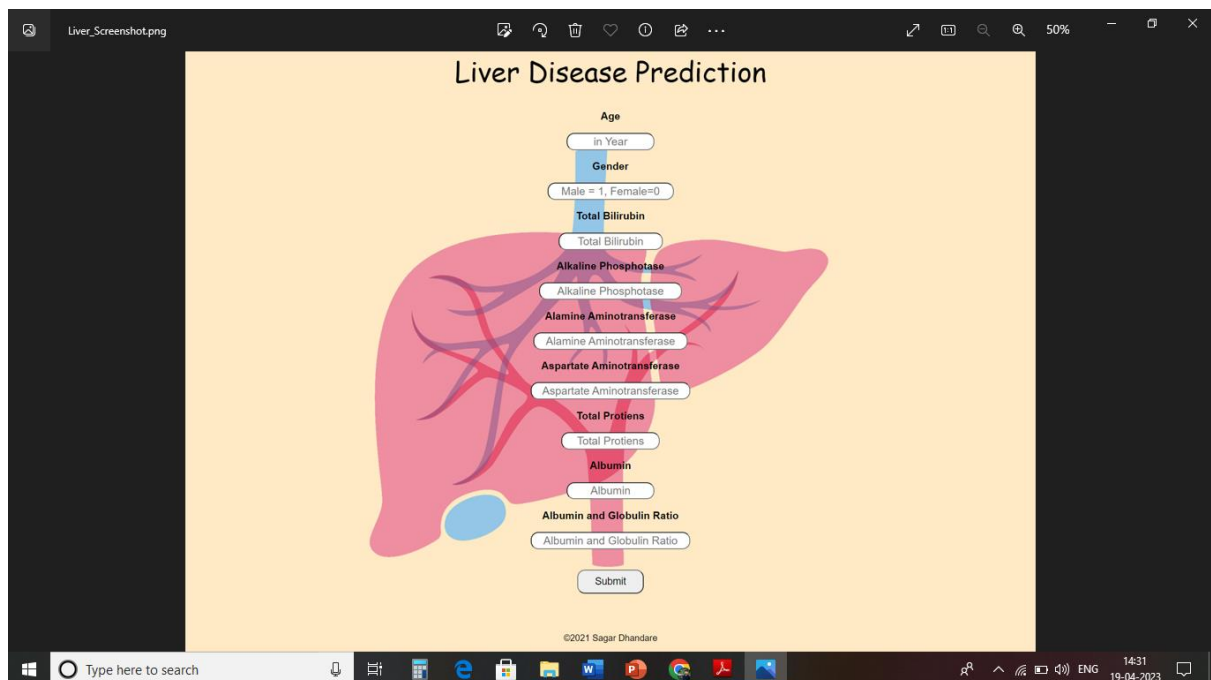
### EMPATHY MAP



## BRAINSTORMING MAP



## RESULT



## ADVANTAGES AND DISADVANTAGES

A liver biopsy is a test used to diagnose liver conditions. Tissue samples are removed from your liver and checked under a microscope for signs of damage or disease. A liver biopsy can tell if there are cancer cells or other abnormal cells in your liver. It can also tell how well your liver is working.

## DISADVANTAGES

- Pain. Pain at the biopsy site is the most common complication after a liver biopsy. ...
- Bleeding. Bleeding can occur after a liver biopsy but is not a common complication. ...
- Infection. Rarely, bacteria may enter the abdominal cavity or bloodstream.
- Accidental injury to a nearby organ.

## APPLICATIONS

A group of blood tests called liver function tests can be used to diagnose liver disease. Other blood tests can be done to look for specific liver problems or genetic conditions. Imaging tests. An ultrasound, CT scan and MRI can show liver damage.

## CONCLUSION

Summary. The main roles of the liver include removing toxins, processing food nutrients and regulating body metabolism. Important causes of liver disorders are fatty liver, hepatitis virus infections and alcohol. Cirrhosis (liver scarring), the end-result of many liver disorders, can lead to liver failure.

## FUTURE SCOPE



The liver has a unique capacity among organs to regenerate itself after damage. A liver can regrow to a normal size even after up to 90% of it has been removed. But the liver isn't invincible. Many diseases and exposures can harm it beyond the point of repair.

## APPENDIX

The image displays two sequential screenshots of a Kaggle notebook titled "Liver Patients Analysis, prediction & accuracy".

**Top Screenshot:**

- The notebook is in the "Code" tab.
- The first code cell (In [1]:) contains the following imports:

```
#Import all required libraries for reading data, analysing and visualizing data
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
%matplotlib inline
from sklearn.preprocessing import LabelEncoder
```
- The "Table of Contents" panel on the right lists: Analysis and Prediction-Indian..., Data Analysis, Data Visualization, Observation:, and Machine Learning.

**Bottom Screenshot:**

- The second code cell (In [2]:) contains the following code:

```
#Read the training & test data
liver_df = pd.read_csv('../input/indian_liver_patient.csv')
```
- The output (Out [3]:) shows the first two rows of the dataset:

	Age	Gender	Total_Bilirubin	Direct_Bilirubin	Alkaline_Phosphatase	Alamine_Aminotransferase
0	65	Female	0.7	0.1	187	16
1	62	Male	10.9	5.5	699	64

Untitled mural • Naan mudhalver x Introducing ChatGPT x ChatGPT | OpenAI x k Liver Patients Analysis, prediction x +

kaggle.com/code/sanjames/liver-patients-analysis-prediction-accuracy

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### Liver Patients Analysis, prediction & accuracy

Notebook Input Output Logs Comments (11)

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into liver patient (liver disease) or not (no disease).

In [3]:

```
liver_df.head()
```

Out[3]:

	Age	Gender	Total_Bilirubin	Direct_Bilirubin	Alkaline_Phosphatase	Alamine_Aminotransferase
0	65	Female	0.7	0.1	187	16
1	62	Male	10.9	5.5	699	64
2	62	Male	7.3	4.1	490	60
3	58	Male	1.0	0.4	182	14
4	72	Male	3.9	2.0	195	27

In [4]:

Table of Contents

- Analysis and Prediction-Indian...
- Data Analysis
- Data Visualization
- Observation:
- Machine Learning

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## PROJECT SUCCESSFULLY COMPLETED

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