Multiple Disease Predictor Using ML

Presented by Group #5
CSE 299

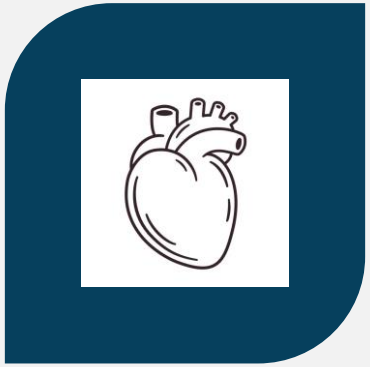
Instructor –
Meem Tasfia Zaman
Lecturer
ECE Dept.
North-South University

Team Members -

MOSTAFIZUR RAHMAN 1912291042
Saiful Islam 1731604642
Sadia binte Sarowar 1811908642

DISEASE INDICATIONS BASED ON SYMPTOMS AND CAUSES FOR:

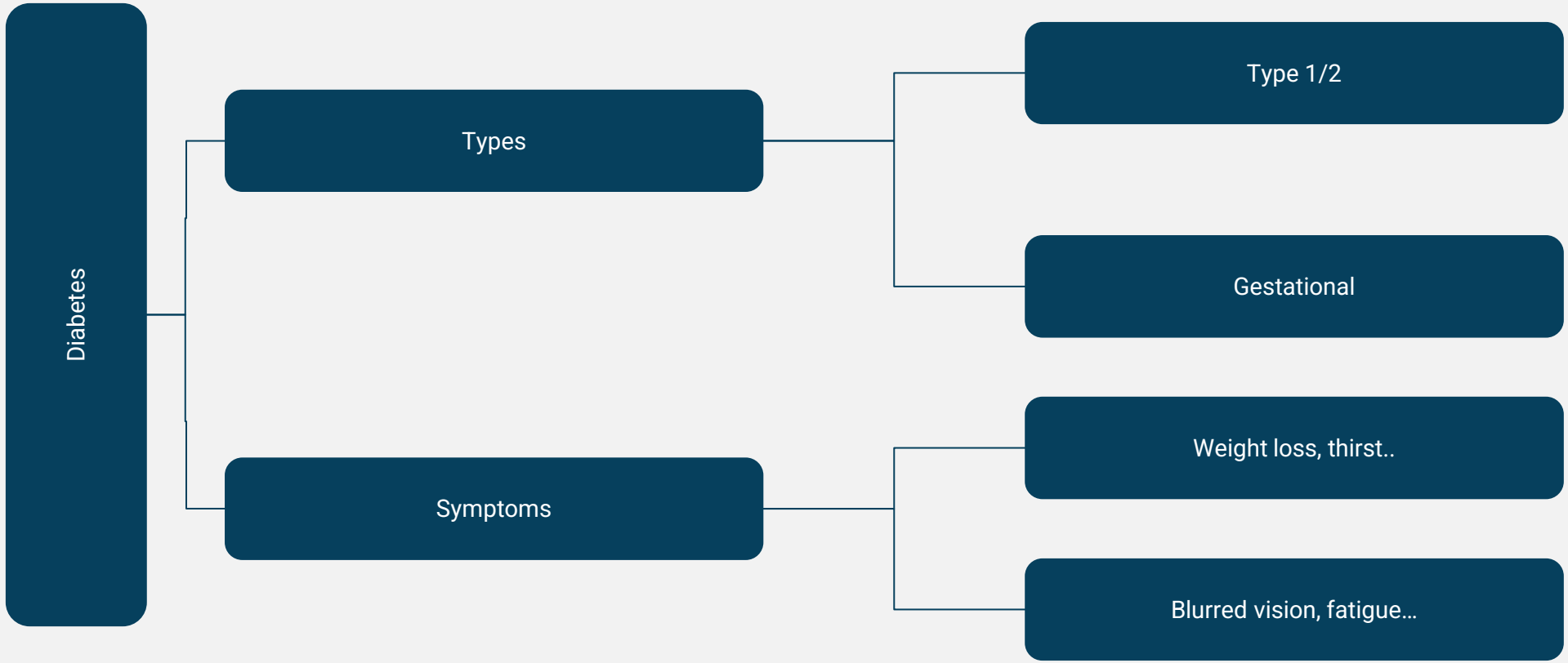
DIABETES



HEART DISEASE

PARKINSON’S DISEASE

Suggestions provided for predicted disease (If any medical support from doctors are required at the moment)

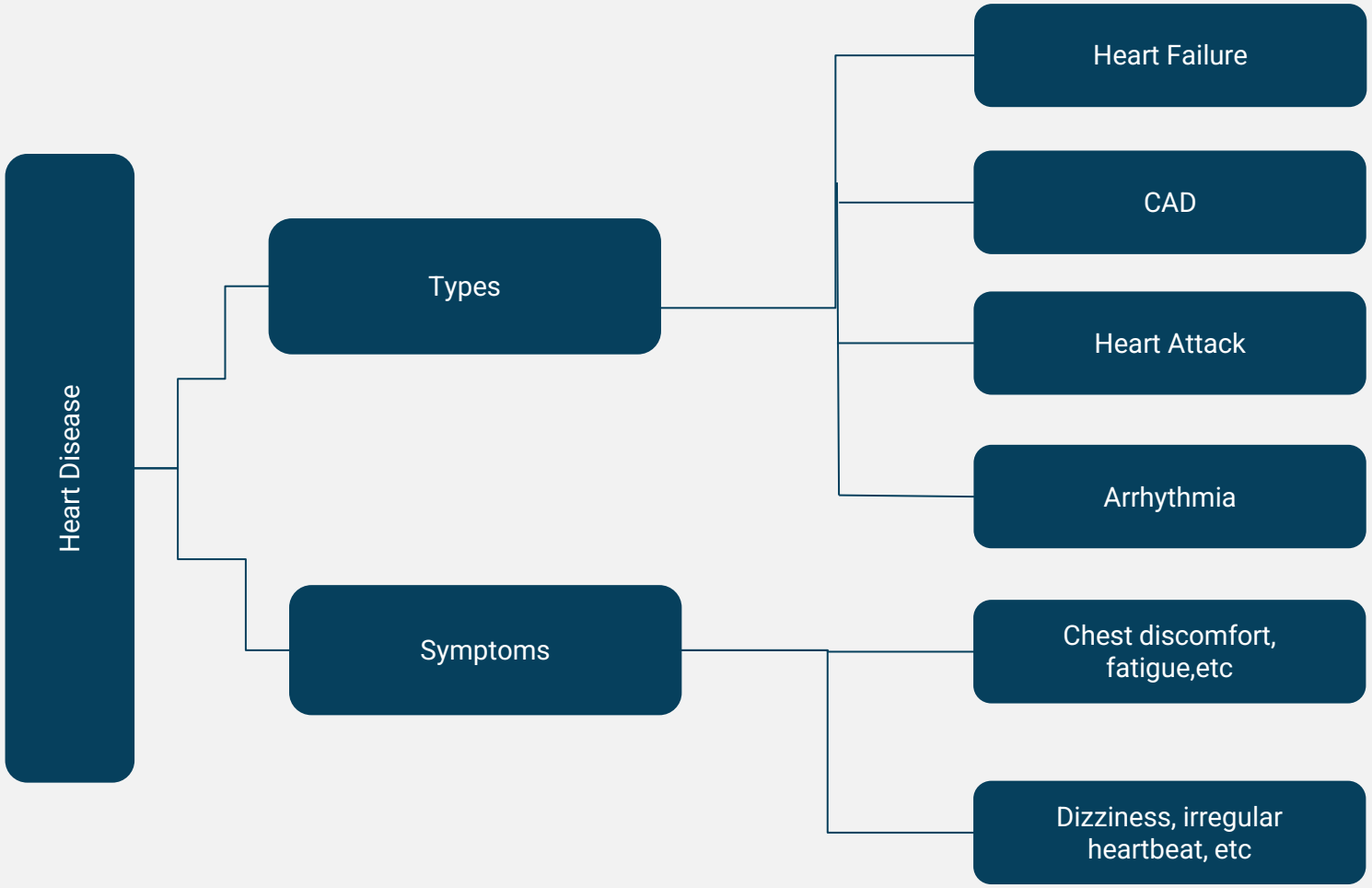

Diabetes
Types
Type 1/2
Gestational
Symptoms
Weight loss, thirst..
Blurred vision, fatigue...

Dataset info for diabetes prediction

- ❏ Collected from Kaggle Datasets.
- ❏ Features -

Numerical	Categorical
Glucose, blood pressures, skin thickness, insulin, age.	Label/output

- ❏ Supervised Categorical Problem.

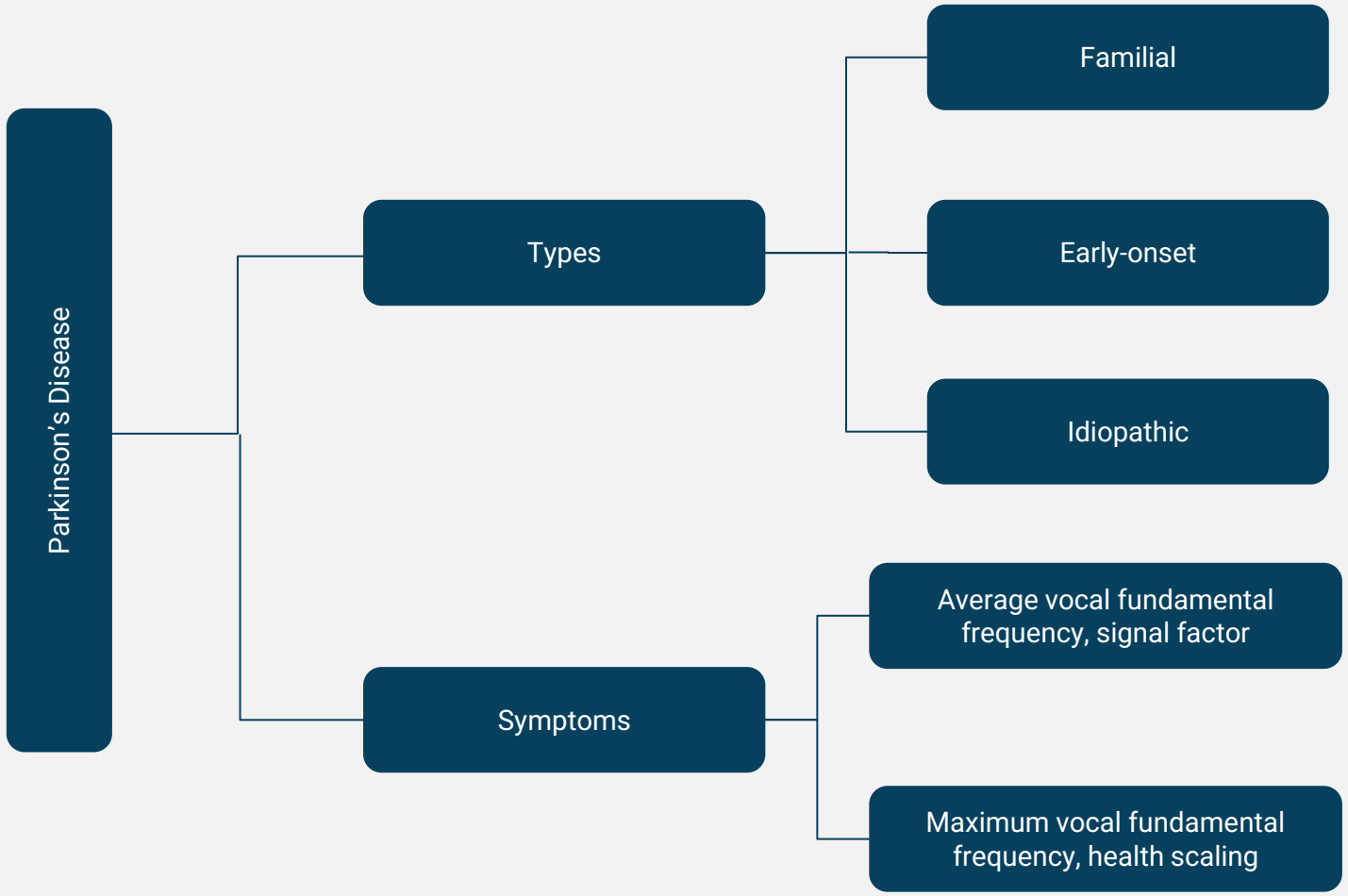

Heart Disease
Types
Heart Failure
CAD
Heart Attack
Arrhythmia
Symptoms
Chest discomfort, fatigue,etc
Dizziness, irregular heartbeat, etc

Dataset info for heart disease prediction

- Collected from Kaggle Datasets.
- Features -

Numerical	Categorical
age, resting blood pressure, serum cholesterol, fasting blood sugar, maximum heart rate achieved, ST depression induced by exercise relative to rest, the slope of the peak of st segment	gender, chest pain type, resting electrocardiographic results, exercise induced angina, number of major vessels coloured by fluoroscopy, thal, label/output

- Supervised Categorical Problem.


Parkinson's Disease
Types
Familial
Early-onset
Idiopathic
Symptoms
Average vocal fundamental frequency, signal factor
Maximum vocal fundamental frequency, health scaling

Dataset info for Parkinson's disease prediction

- Collected from Kaggle Datasets.
- Features -

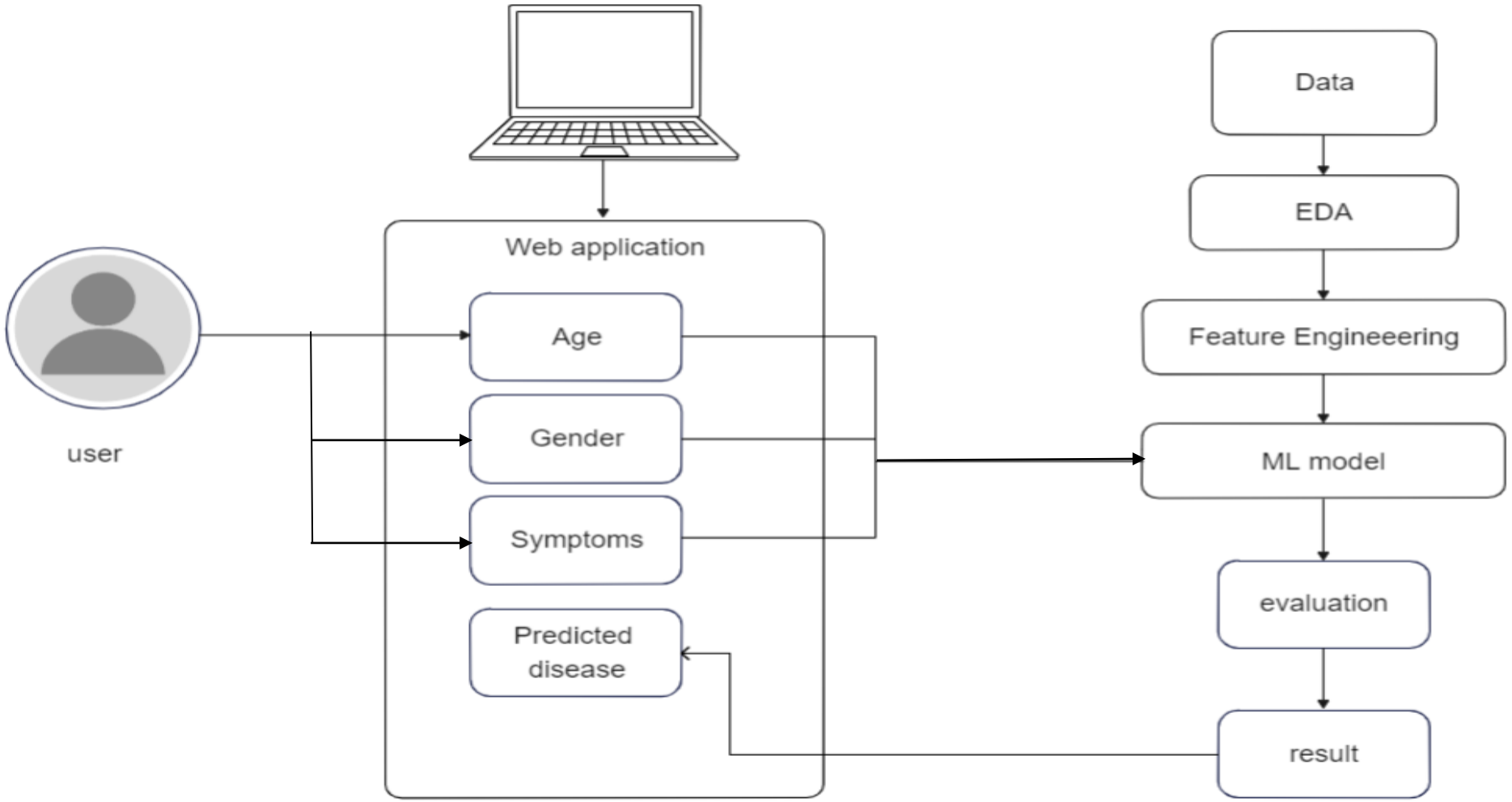
Numerical	Categorical
Average vocal fundamental frequency(MDVP:Fo (Hz)),Maximum vocal fundamental frequency(MDVP:Fhi (Hz)),Five measures of variation in fundamental frequency(MDVP:Flo (Hz))	Label/Output

- Supervised Categorical Problem.

SOFTWARE STACK & TECHNICALITIES

- ➔ Python
- ➔ Kaggle Dataset
- ➔ Google Colab/ Jupyter notebook
- ➔ Streamlit/ Django
- ➔ Pickle
- ➔ VS Code Editor

SOFTWARE ARCHITECTURE DIAGRAM



Project Timeline (Gantt Chart)

WORK DISTRIBUTION

Name	Tasks
Sadia	Research, Data Pre-Processing, ML models, Pickle.
Mostafizur Rahman	Research, Dataset collection, Model Tuning, Testing
Saiful	Research, EDA, Deployment, Streamlit/django

Teamwork!

Thank You!
Stay Happy and Healthy..