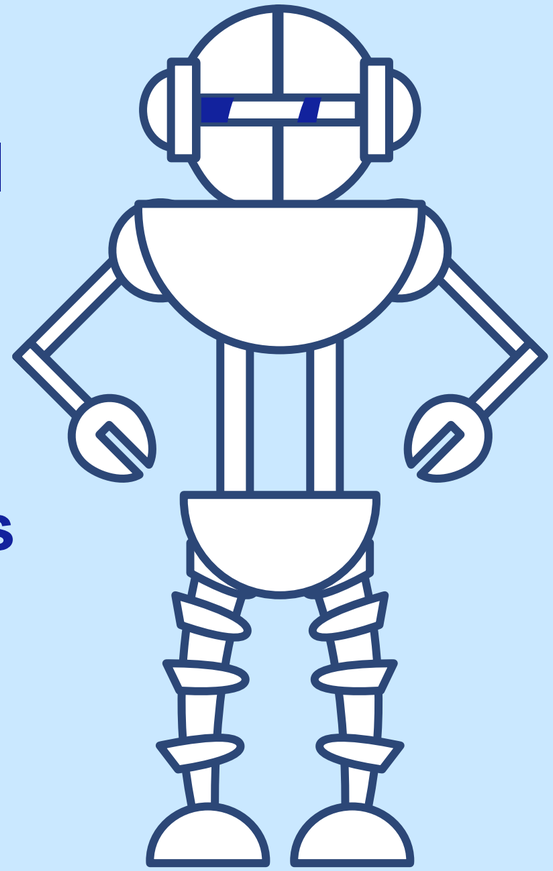
Speech Recognition

Paritosh Joshi
CH.EN.U4CSE20149

What it does?

Hear speech in real time

Execute commands



Analyze

Emotion detection

What are the Future Plans?

- Hand Free Environment
- Cross-platform

The objective is to reduce the Input Hardware Components

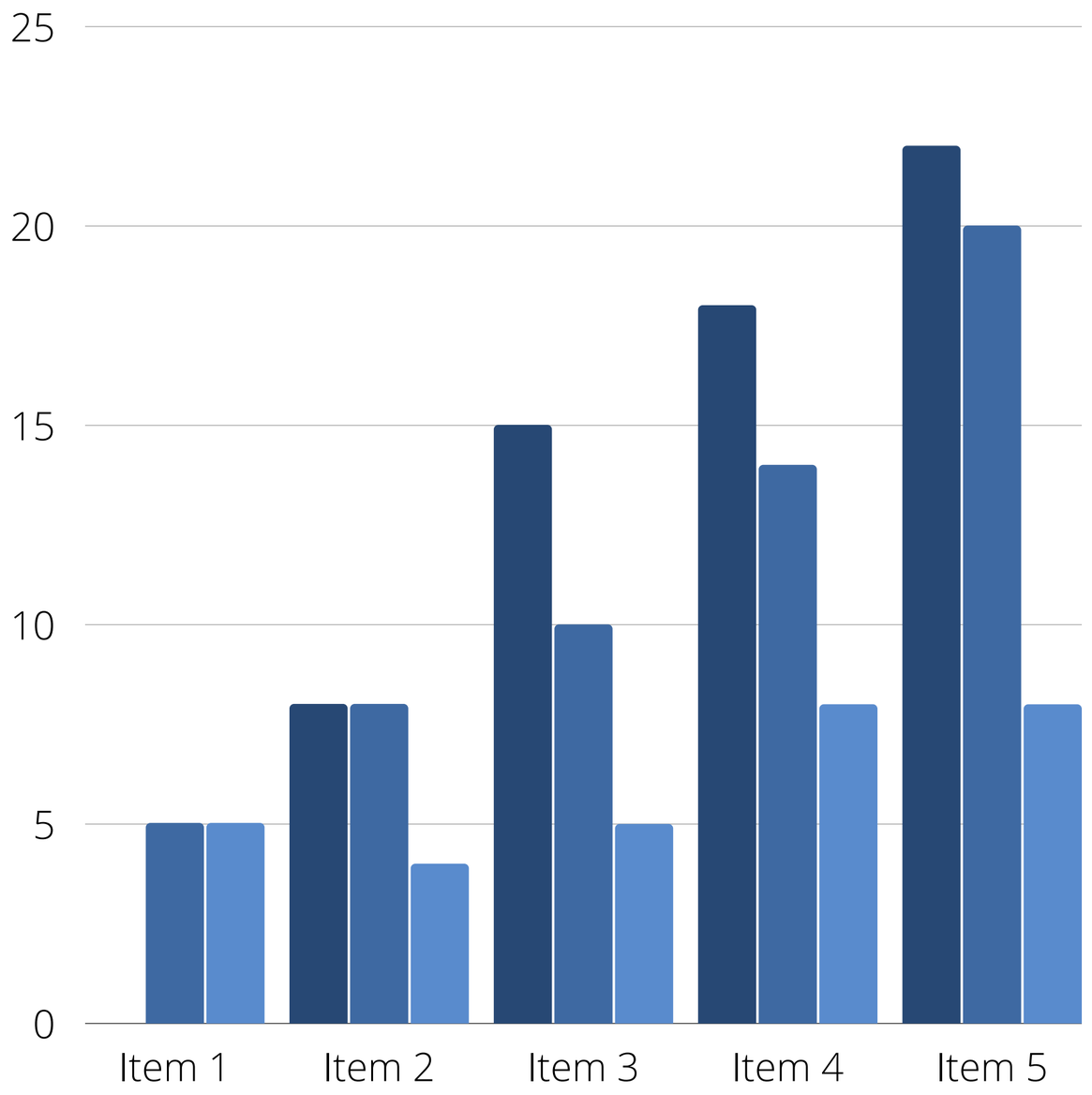
Literature Survey

01 Automatic depression recognition by speech signal processing

02 Challenges of speech recognition for Bengali language

Data Set

- Speech Command from **Kaggle**
- Application of Speech Recognition



To-do with Data-Set...

Steps to be followed while working with the Data-Set

Preprocessing

- Load libraries
- General analysis of audio files
- EDA on data

1

Visualize Data

- Seaborn
- Wave plot

2

Feature Extraction

- Zero Crossing Rate
- Chroma STFT
- MFCC
- Mel Spectogram
- Tonnetz

3

To-do with Data-Set...

Steps to be followed while working with the Data-Set

Train-Test Split

- Split dataset into Traing & Testing sets
- Get dimensions of splitted sets

4

Create Model

- Seaborn
- Wave plot

5

Model Evaluation

- Confusion Matrix
- Heatmap
- Accuracy
- Recall

6

Thank You