Uno Morse Conversie

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PROBLEM STATEMENT

" Conversion of Morse signal into Audio signal using Kmeans Clustering "

OBJECTIVES

- Making job of Secret agents like RAW, CBI, SPYs easier
- Conversion of secretly transmitted Morse signal into Audio signal within seconds
- Transmission of secret signal with just one button
- Any alphabet, any symbol, any number can be transmitted by just one button
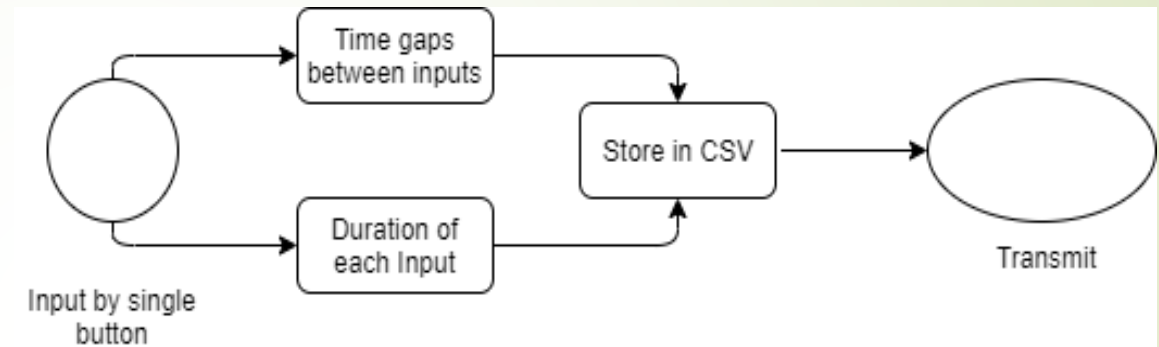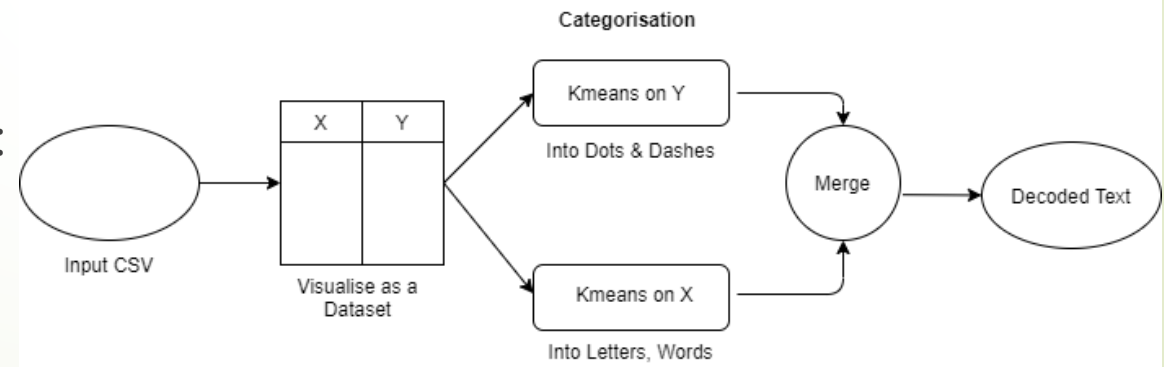
PROPOSED METHODOLOGY

Can be divided into 3 parts:

➡ Taking input from user, converting into csv

➡ Conversion of this csv into text using Machine Learning concept i.e., Kmeans clustering

➡ Converting this text into Audio using gTTs library

Architectural Diagrams

- Input Mechanism:

- Conversion mechanism:

RESULTS

```
     X_labels  Y_labels
0          2         0
1          0         1
2          2         1
3          0         0
4          0         0
..       ...       ...
85         2         0
86         2         1
87         0         0
88         2         1
89         1         0

[90 rows x 2 columns]
```
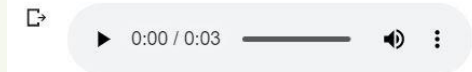
- Input is converted into csv, then categorised using ML in this way:

```
[20] #Decoded Text
     print(word)

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```

- Categorised data is converted into text:

```
audio=Audio('output.wav')
audio
```

▶ 0:00 / 0:03 ━━━━━━━ 🔊 ⋮

- Text is converted into Audio:

```
Time taken for converting Morse to Text: 0.8933380000000002 sec
Time taken for converting Text to Audio: 0.2334199999999974 sec
Total time of Execution (Morse to Audio): 1.126758 sec
```

- Time of Execution: