**Customized Clone System and Mimicking System**

**DESCRIPTION:**

1. **Register**: The page where the user can register the page based on username, password, email, phone number and photo.
2. **Login**: The page where the user can login the page based on registered details.

* Password Authentication
* OTP
* Face Authentication

1. **Input**:

* Take their voice as input and convert that voice into cloned voice.
* Take their text and voice as input and convert the context into cloned voice.

1. **Multi-Language Support:**

* In this step, the system can convert the cloned voice into desired language.

1. **Voice Authentication:**

* **1st – Select the cloned voices from profiles.**
* **Voice Command Authentication –** Ifyour voice command is matched, then the user can able to use the chosen cloned voice.
* If it is matches, the system can display their name and picture.

1. **Add Meta data:**

* Add the meta data into cloned voice by using ***eyed3***

1. **Voice Clone Profile Training:**
2. **Input:** The dataset, **Audio Voice dataset** is implemented as input. The input dataset is taken from dataset repository. The dataset is in the format ‘.avi or ‘.mp3’
3. **Pre-processing:** The collected input audios are subjected to pre-processing. In the Pre-processing step,
   1. **Noise Injection**
   2. **Stretching**
4. **Feature Extraction:** In this step, we can extract the best features from pre-processed data as
   1. **Zero Crossing Rate**
   2. **MFCC (Mel Frequency Cepstral Coefficients).**
5. **Data splitting:** In this step, the pre-processed data’s are split into Train set and test set for decision
   1. **Train data** is used for evaluate the model.
   2. **Test data** is used for predict the model.
6. **Classification:** In this step, we can implement the two machine learning algorithms such as,
   1. **Logistic regression (LR)**
   2. **Random Forest (RF)**
7. **Performance Estimation: In this step, we can analyse some performance metrics such as,** 
   1. **Accuracy**
   2. **Precision**
   3. **Recall**
   4. **F1 score**
8. **AI Generated Voice/Human Voice:**
9. **Input:** The dataset, **Human and AI Voice dataset** is implemented as input. The input dataset is taken from dataset repository. The dataset is in the format ‘.avi or ‘.mp3’
10. **Pre-processing:** The collected input audios are subjected to pre-processing. In the Pre-processing step,
    1. **Noise Injection**
    2. **Stretching**
11. **Feature Extraction:** In this step, we can extract the best features from pre-processed data as
    1. **Zero Crossing Rate**
    2. **MFCC (Mel Frequency Cepstral Coefficients).**
12. **Data splitting:** In this step, the pre-processed data’s are split into Train set and test set for decision
    1. **Train data** is used for evaluate the model.
    2. **Test data** is used for predict the model.
13. **Classification:** In this step, we can implement the machine learning algorithms such as,
    1. **Decision Tree (DT)**
14. **Performance Estimation:** In this step, we can analyze some performance metrics such as,
    1. **Accuracy**
    2. **Precision**
    3. **Recall**
    4. **F1 score**
15. **Web application:** In this step, we can implement the project in web application.

**Note:**

All the process is going to be done as per the description given above.

The dataset will be provided by us.

**Not a real time project.**

**GUI is provided (Web Application) –** Run on local host

**Language**: Python

**Front** **End**: HTML, CSS

**Framework**: FLASK and STREAMLIT

**Software Used**: Anaconda Navigator – **Spyder IDE**