**IMPLEMENTATION**

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Implementation is the stage of the project when the theoretical design is turned out into a working system. Thus it can be considered to be the most critical stage in achieving a successful new system and in giving the user, confidence that the new system will work and be effective.

The implementation stage involves careful planning, investigation of the existing system and it’s constraints on implementation, designing of methods to achieve changeover and evaluation of changeover methods.

**MODULS:**

1. **Authentication**
2. **Detection of Face , Eye and Smile.**
3. **Emotion detection**
4. **Audio Converstion**

**MODULE DESCRIPTION**

1. **Authentication:-**

Authentication is the process of determining whether someone or something is, in fact, who or what it declares itself to be. Authentication technology provides access control for systems by checking to see if a user's credentials match the credentials in a database of authorized users or in a data authentication server.

Facial recognition is a way of recognizing a human face through technology. A facial recognition system uses biometrics to map facial features from a photograph or video. It compares the information with a database of known faces to find a match. Facial recognition can help verify personal identity, but it also raises privacy issues.

1. **Detection of Face , Eye and Smile:-**

Fortunately, faces have some easily recognisable features that web-cam can lock on to; a pair of eyes, smile, and a face. By being able to detect a face in the scene, the web-cam can concentrate its autofocus on that person’s face to ensure it is the primary subject in focus within the image. More sophisticated implementations can also link up to machine learning and optimise the exposure for the subject’s face.

Once a face has been detected, the system will track that face as best it can. If the person turns away, detection lock will be lost, though enhanced the detection capability to maintain a lock even when the subject has turned to the extent that only one eye remains visible. Some face detection modes can lock onto several faces at once, in which case the face that is used as the primary subject of focus will usually be based on which is closest or most prominent, though sometimes you can override this by selecting a face manually. If several faces are detected at once, not all of them will necessarily be in focus.

1. **Emotion detection:-**

Emotion recognition is a technique used in software that allows a program to "read" the emotions on a human face using advanced image processing.

With advances in technology, emotion recognition software has become very capable. Besides its ability to track basic facial expressions for emotion such as sadness, happiness, anger, surprise , neutral , disgusted , surprised etc., emotion recognition software can also capture what experts call "micro-expressions" or subtle body language cues that may betray an individual’s feelings without his/her knowledge.

1. **Audio Converstion:-**

Audio recognition is a technique used in software that allows a program to "read" the audio on a voice using advanced text speech.