GESTURE CONTROLLED COMPUTER

TEAM NAME :– Team HeisenBUG

MEMBERS:-

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ABOUT PROJECT:-

We wish to make a Linux-based application for live motion gesture recognition using webcam input in python. This application uses the webcam to detect gesture made by the user and perform basic operations accordingly. The user has to perform a particular gesture. The webcam captures this and identifies the gesture, recognises it (against a set of known gestures) and performs the action corresponding to it. This is very useful for a hands-free approach.

Requirement:-

Good quality web-cam, laptop with Ubuntu installed.

Softwares And Concepts learnt:-

IMAGE PROCESSING, PYTHON.

TIMELINE:-

Week 1:-

1. Buying a web cam and installing the required   open source libraries .

2. We will have 2 sub-parts to the project :

 a. Image processing – Identifying the gestures.

 b. Coding in python – Coding for the functionalities related to the gestures.

3. First we start off with the basic gesture of a mouse.

Week 2 :-

1. We also start coding for some different functionalities .
2. Some of them are : Zoom in , zoom out , scrolling etc.

Week 3 :-

1. We also add features of forward, rewind, pause and play in music box.
2. Debugging any mistakes found till now and completing the basic mouse functionalities .

Week 4 :-

1. We also add face recognition facility as a replacement for password protection using image processing .

Week 5 :-

1. Project should be completed by now .
2. We will try to improve the features if possible .
3. We can also extend the project to 3D gesture recognition if time permits or probably after the 40 day slot .