

Trigger: When an unknown face is detected and you say "**REMEMBER**" in response to "Hey bro, Someone is outside the door. Should I open the door?", the process begins.

Captures a New Person's Face

**Capture Process:** The system guides you through five specific angles via voice prompts:

- "Please place your face front to capture."
- "Please turn your face to the right side to capture."
- "Please turn your face to the left side to capture."
- "Please turn your face to the top tilt to capture."
- "Please turn your face to the bottom tilt to capture."

Announce Success: Confirms "Image capturing successfully" after 10 images.

Image Collection: For each angle, it waits 2 seconds for you to adjust, then captures 2 images (totaling 10 images). The `face_cascade.detectMultiScale` detects faces in each frame, and the face regions are extracted and stored in `face_samples` with a unique `current_id` in `ids`.

- **Prompt Name:** Asks "Please speak your name" (e.g., "I am Soham").
- **Extract Name:** Processes input to get "soham" as `person_name`.

Train Model: Trains LBPH model using face samples and pixel data.

DATABASE

DATASET

Save to Dataset: Creates "soham" folder in "Home Mem Datasets," saves "soham\_model.yml," and updates `known_faces`.