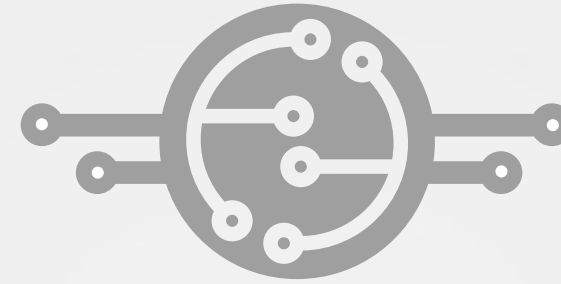


MIT Vishwaprayag University

Review-1



VIRTUAL MOUSE USING MACHINE LEARNING TECHNIQUES

Presented by-
Ritika Rangrej

Guide -
Ms Madhu Priya

ABSTRACT

- The mouse is one of the wonderful inventions of Human-Computer Interaction (HCI) technology.
- There is no other more popular navigation/interaction device than the mouse.
- Keeping this in the mind , this helps implementing a virtual mouse system as an alternative.





Problem Statement

To overcome problems in the real world such as situations where there is no space to use a physical mouse and also for the persons who have problems in their hands and are not able to control a physical mouse.

Virtual Mouse

- User makes specified hand gestures that is captured by the camera.
- The Virtual Mouse provides an infrastructure between the user and the system using only a camera.



Hardware and Software Requirements



1

Software Requirements are :
Various Python libraries like OpenCV,
PyAutoGUI , Mediapipe.

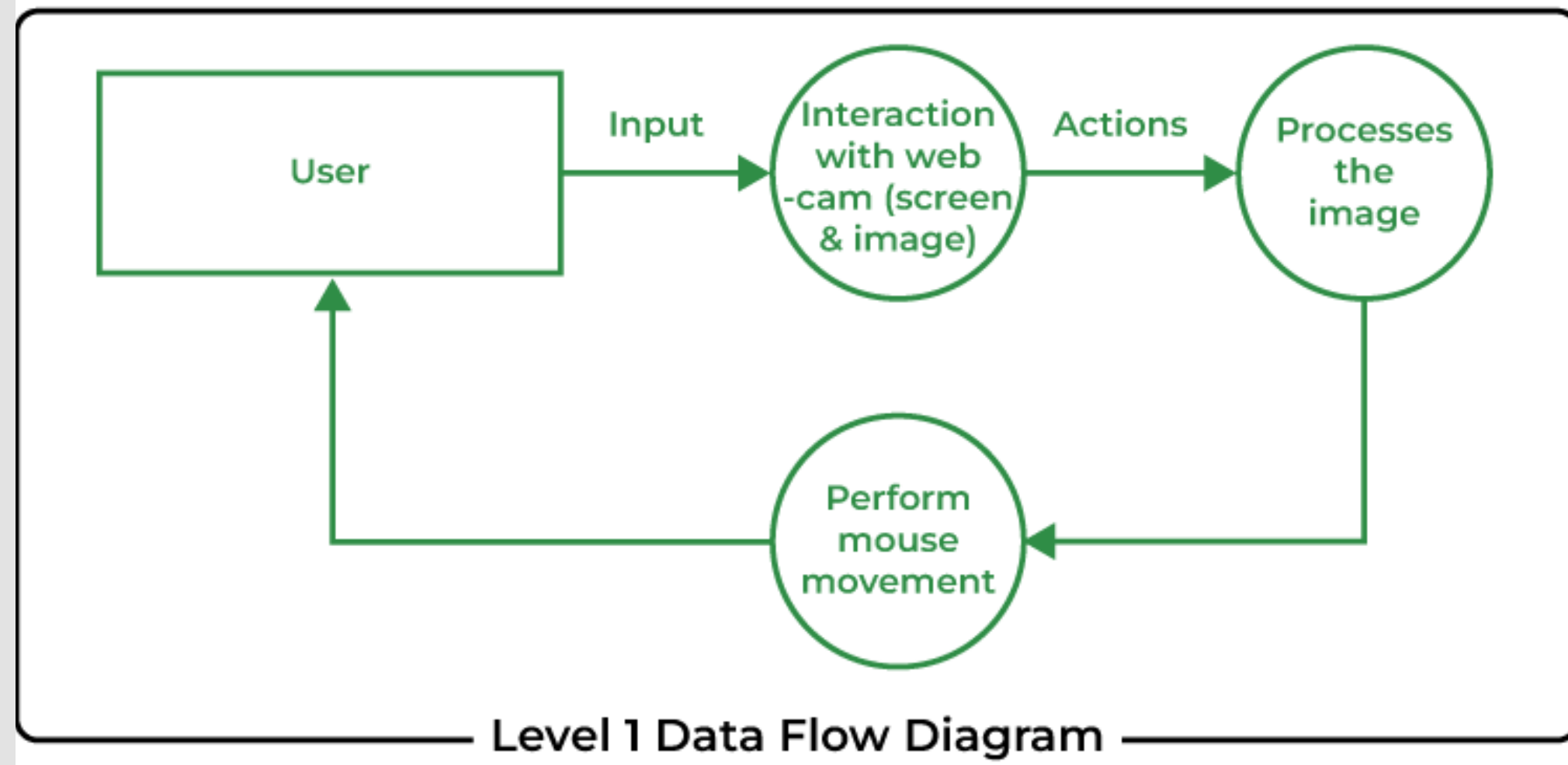
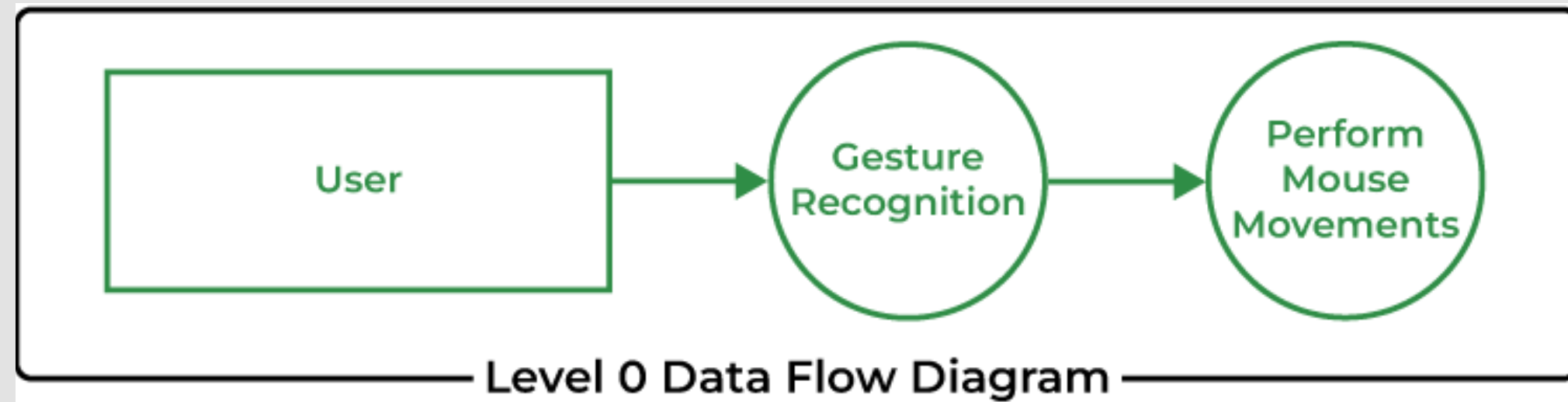


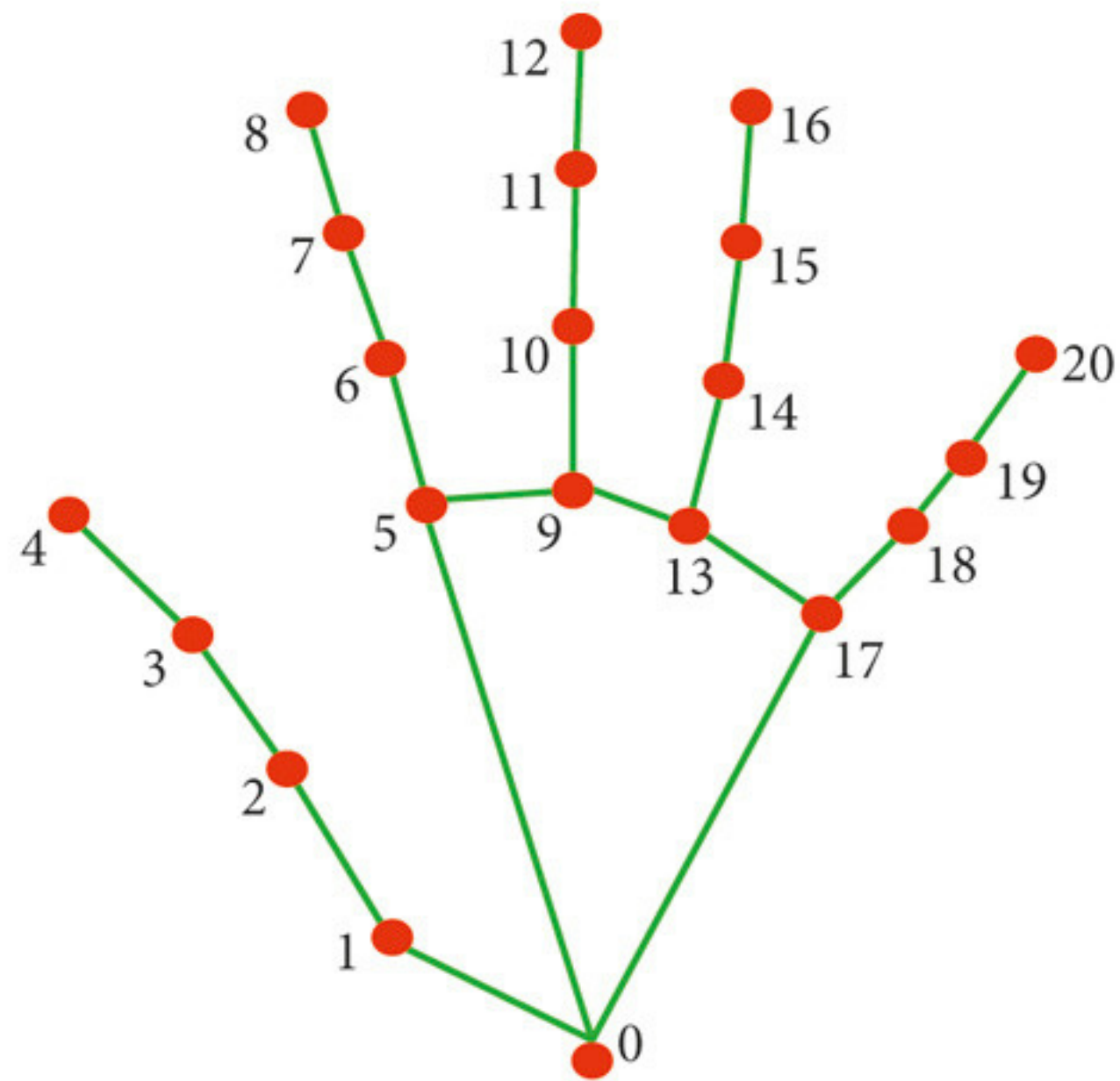
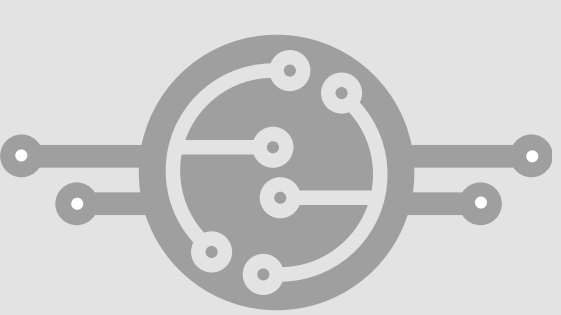
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Hardware Requirements are :
Virtual Mouse requires only a webcam.
We just need a hand to control mouse
cursor.



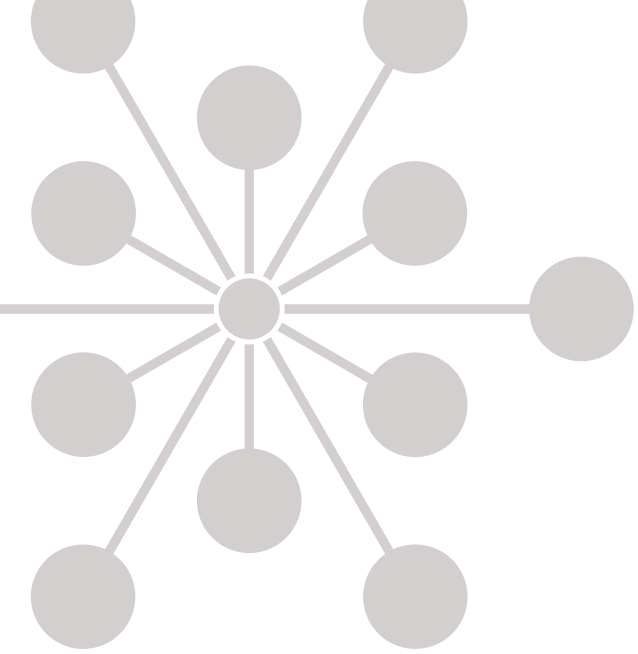
Daigram





- | | |
|-----------------------|-----------------------|
| 0. WRIST | 11. MIDDLE_FINGER_DIP |
| 1. THUMB_CMC | 12. MIDDLE_FINGER_TIP |
| 2. THUMB_MCP | 13. RING_FINGER_MCP |
| 3. THUMB_IP | 14. RING_FINGER_PIP |
| 4. THUMB_TIP | 15. RING_FINGER_DIP |
| 5. INDEX_FINGER_MCP | 16. RING_FINGER_TIP |
| 6. INDEX_FINGER_PIP | 17. PINKY_MCP |
| 7. INDEX_FINGER_DIP | 18. PINKY_PIP |
| 8. INDEX_FINGER_TIP | 19. PINKY_DIP |
| 9. MIDDLE_FINGER_MCP | 20. PINKY_TIP |
| 10. MIDDLE_FINGER_PIP | |



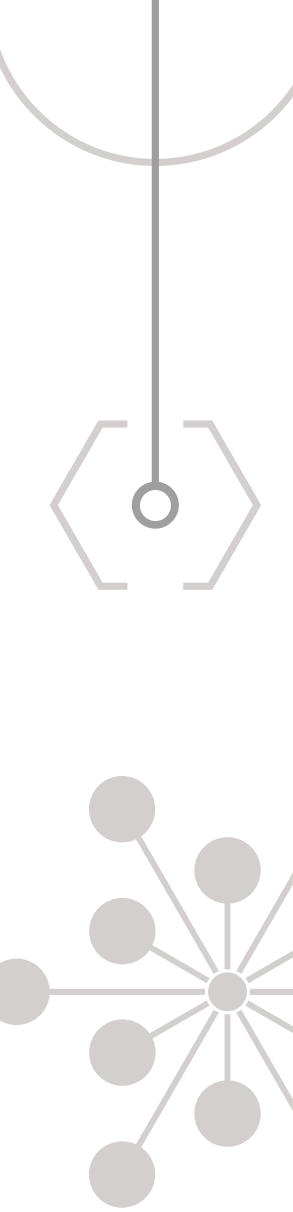


Progress of work done

Taking some help from
faculties

Getting some idea
from Google

Reading some books to
get information about
Machine Learning

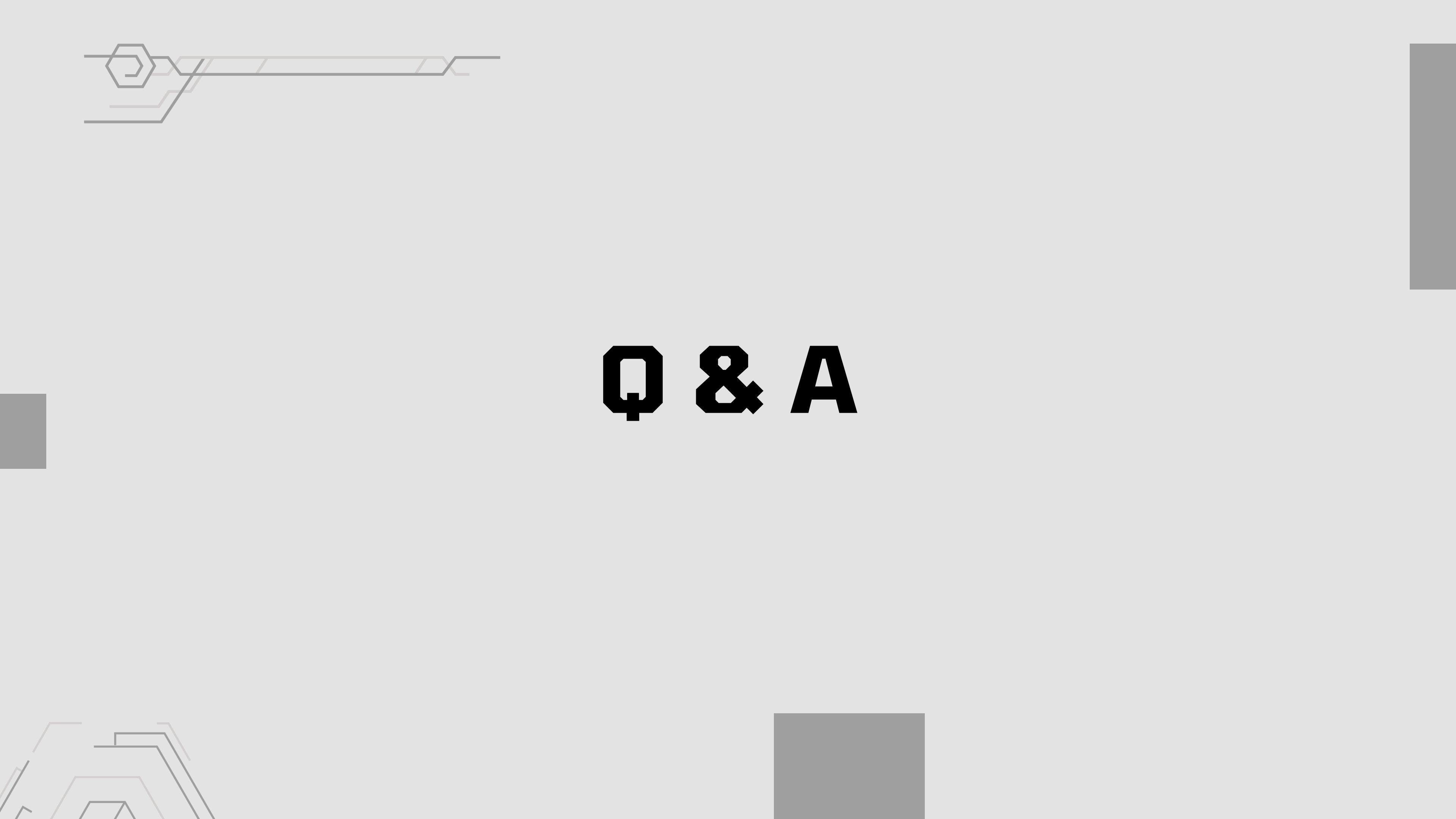


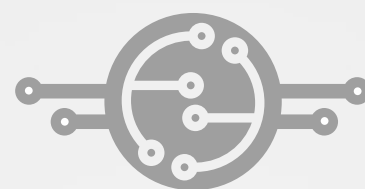
Reference

<https://www.geeksforgeeks.org/ai-virtual-mouse/>



Q & A





THANKYOU