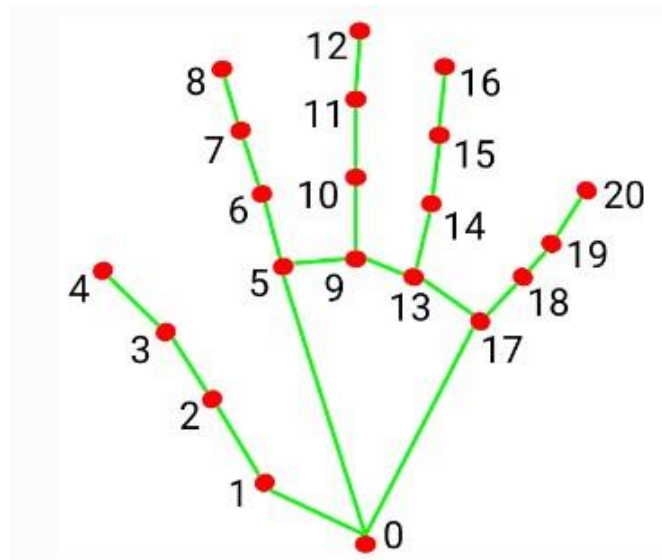


# Epoch final project report

## Hand gesture-controlled laptop screen

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- This project uses a hand detection model. The ML model using Computer vision and gives 3-D coordinates of many points on the hand. It gives coordinates of 21 different points on hand.



- Using coordinates of these points we can determine the state of any particular finger, whether it is UP or DOWN by calculating distance between points between points on the same finger and checking their relative position.
- Then I made my own gestures using combinations of up and down states of different fingers.

- **Examples:**
  1. **Index finger UP** means the tip of the index finger acts as **mouse cursor**.
  2. Both **index and middle finger UP** mean **single click**.
  3. **First three fingers UP** mean **double click**.
  4. **Four fingers UP** mean **scroll down in PDF**.
  5. **All five fingers UP** mean **scroll up in PDF**.
  
- Likewise, many new gestures can be come up with and can be easily implemented.