Part 4: Input/Output devices.
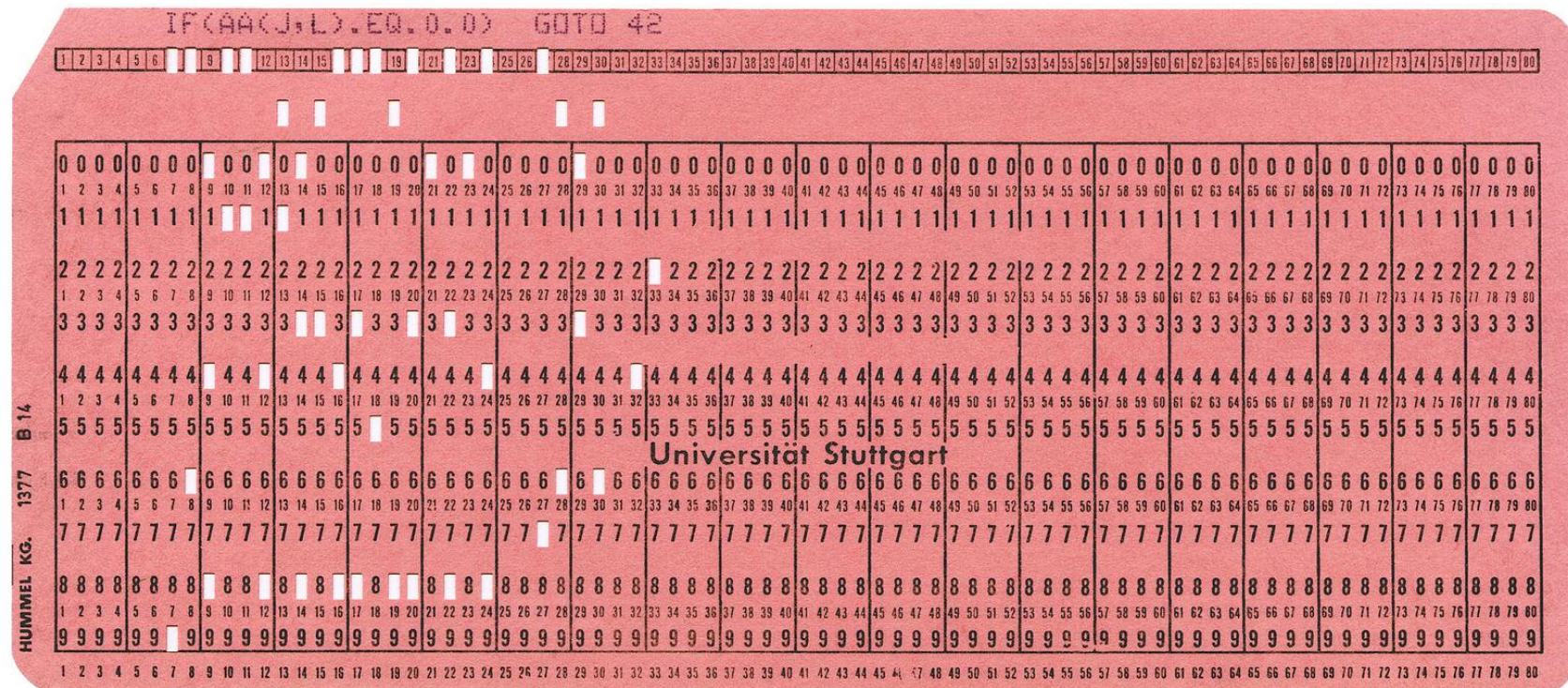
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Input & Output devices

- As computer users, we're the most familiar with the parts of the computer that we interact with daily: the input and output devices.

Input & Output devices

- **Input**

- The very first computers only accepted "**punch cards**" as input. Computer scientists had to carefully punch out their instructions and then feed the cards into the computer.

A punch card used in the 1970s to input Fortran programs into an IBM mainframe computer.
Source: Harke, Wikipedia

Input

- computers have come a long way since the 1970s, and we can now input data into them using a variety of easy-to-use devices. The most common input devices are

- **Keyboard,**

- **Mouse, and**

- **Touch screen.**

Input

- There are hundreds of other input devices, like:

- **microphones** to capture **sound waves**,

- **scanners** to capture **image data**,

- **virtual reality** devices to capture our **body movements**.

- Computers also receive **input** from their environment using "**sensors**", like motion sensors that detect changes in movement.

Input

- What other input devices have you used? What new input devices will we have 20 years from now**?**

Output

- Once the **CPU** is done processing the data, it often needs to **output** a result.

- A standard output device is the **computer monitor**, which displays text, images, and user interface elements by lighting up thousands of **pixels** with different colors.

- There are many other ways a computer could output data. If the output device can interpret a stream of 1s and 0s, it can turn that data into anything –

- **headphones** output **sound**,

- **printers** output ink on **paper**,

- **projectors** output **light**.

Output

- What other output devices have you used? What new output devices will we have 20 years from now?