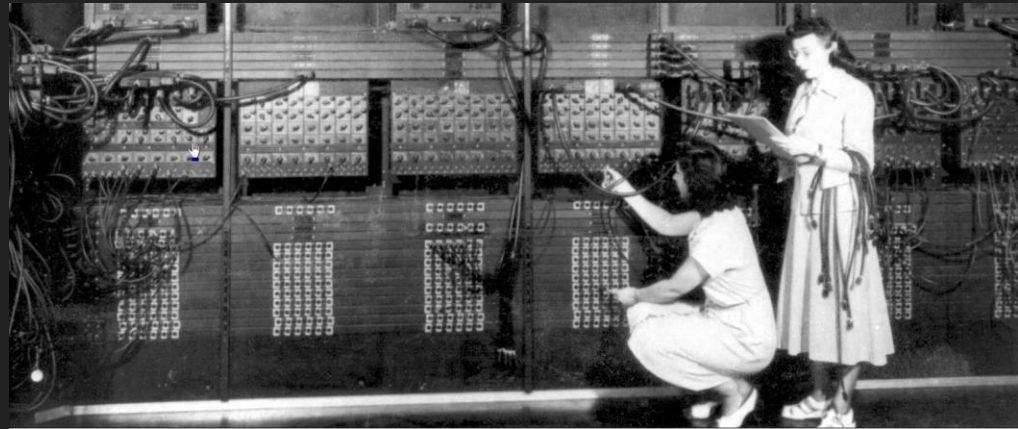


ENIAC

Meiling Wu & Sailesh Suri

What is the ENIAC?

- Electronic Numerical Integrator And Computer.
- First general purpose electronic digital computer.
- Completed in 1945 with about \$500,000 budget.
- First computer built to take full advantage of electronic processing speeds.
- Made with:
 - 17,468 vacuum tubes
 - 7,200 crystal diodes
 - 1,500 relays



Why was the ENIAC needed?

Needed in WWII for calculating trajectories of ballistics

Existing machine, Bush Differential Analyzer, was not good enough

Speed up calculations

Improve accuracy of firing and bombing tables

For a 60 second trajectory:

Person with desk calculator - 20 hours

Bush Differential Analyzer - 15 minutes

ENIAC - 30 seconds

Applications of the ENIAC

Calculate ballistics during WWII

Performing extensive calculations during design of hydrogen bomb

Later applications:

- Weather prediction

- Atomic energy calculations

- Cosmic ray studies

- Thermal ignition

- Random-number studies

- Wind tunnel design

How is the ENIAC used?

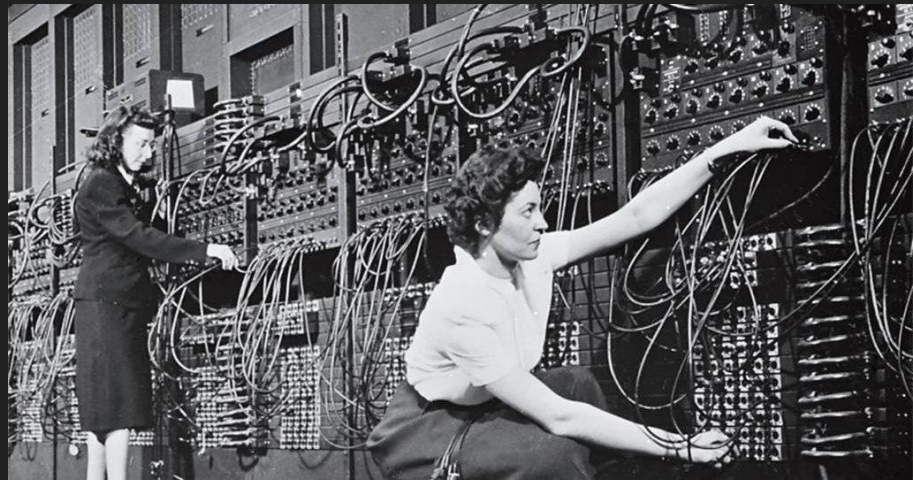
Logic diagrams

Programmed manually with switches and cables

No programming language

No internal memory

Programmed by six brilliant women!



Thank you!