Introduction to Information Technology

CSC109

2019

A. Introduction to Computer

Chapter 1: Outline

✓ Introduction to computers

✓ Characteristics of computer

✓ History

✓ Generation

✓ Classification

✓ Computer System

✓ I/O Process and concept

✓ Computer Hardware Components

✓ Application

1.1 Introduction

- Today's world is information rich word, and it has become necessary for everyone to know about computers

- Computers are an integral part of our lives; our lives are directly or indirectly affected by the computers

- Application Area ??

- Computer is derived from the world "Compute"

- A computer is an electronic data processing device, which accepts and stores data inputs, processes the data input, and generated the out put in required format

1.1 Cont..

C	-	Commonly
O	-	Operating
M	-	Machine
P	-	Particularly
U	-	Used For
T	-	Technical
E	-	Educational
R	-	Research

1.2 Digital And Analog Computers

- Digital:
  - distinct values to represent the data internally
  - 0's and 1's

Analog Computer vs. Digital Computer

- Analog:
  - represents data as variable across a continuous range of values
  - earliest computers
  - used for measuring of parameters that vary continuously in real time, such as temperature, pressure and voltage.

1.3 Characteristics Of Computer

● **Speed**, **accuracy**, **diligence**, **storage capability** and **versatility** are some o f the key characteristics o f a computer.

1. Speed
2. Accuracy
3. Diligence
4. Storage Capability: Primary and secondary storage devices
5. Versatility

6. Reliability
7. Automation
8. Reduction in paper work and Cost

Limitations:

1.3 Characteristics Of Computer Cont…

Disadvantages

1. No I.Q
2. Dependency
3. Environment
4. No Feeling

1.4 History Of Comp

Father of computer ?? Who?

Charle's Babbage

British Mathematics professor
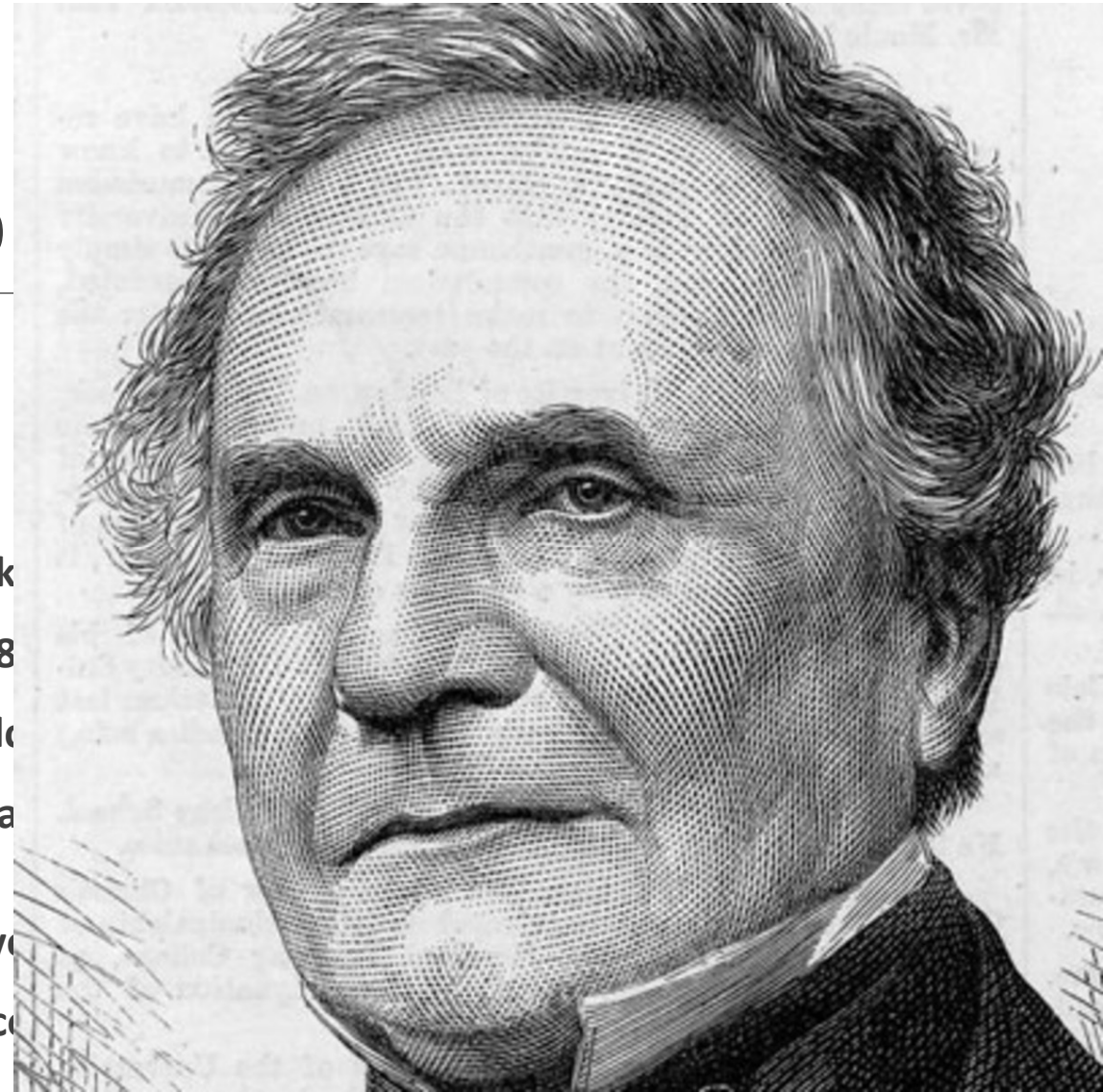
Born in England in 1972 as a son of a rich bank

He began to design a "difference engine" in 18

It was very complicated machine for doing calc

He began design of another machine " the ana
different types of calculations.

His machine was too ahead of the time of dev

Lack of better technology Baggage could not c
before he had completed his works

1.4 History of Computer cont..

1. Early Computing Device/ Calculating Machine: **ABACUS**

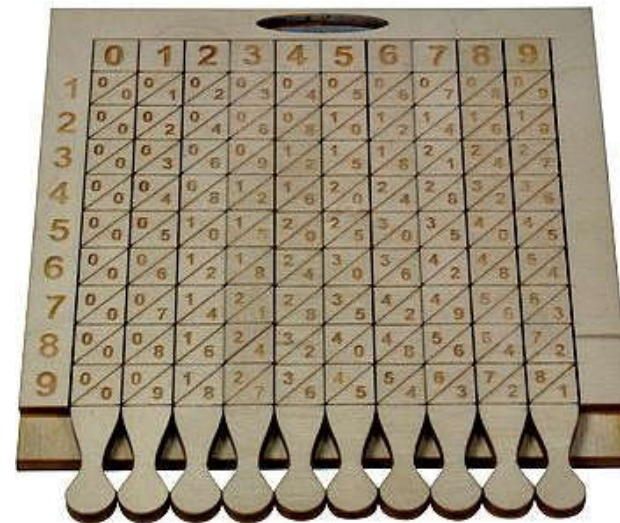   About 4,000 years ago, Chinese invented ABACUS. It is a calculating tool.

2. **Napiers Bones**

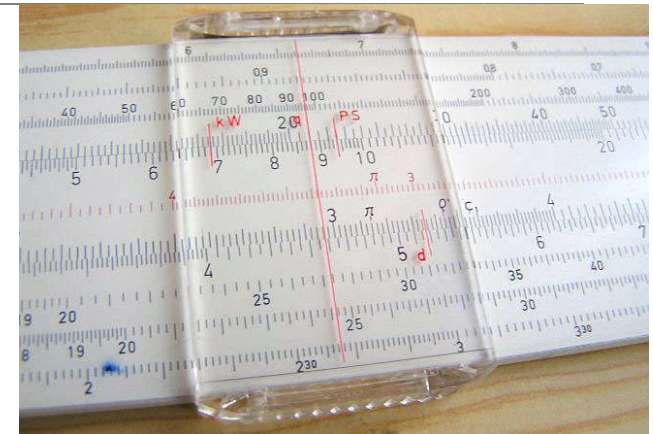   English mathematician John Napier.

   Used for multiplication

1.4 History of Computer cont..

3. Slide Rule

English Mathematician Edmund Gunter

Can perform Addition, subtraction, multiplication and division

Widely used in Europe in 16th Century

4. Pascal's Calculator

In 1642, Blaise Pascal, a French mathematician

Also known as pascaline

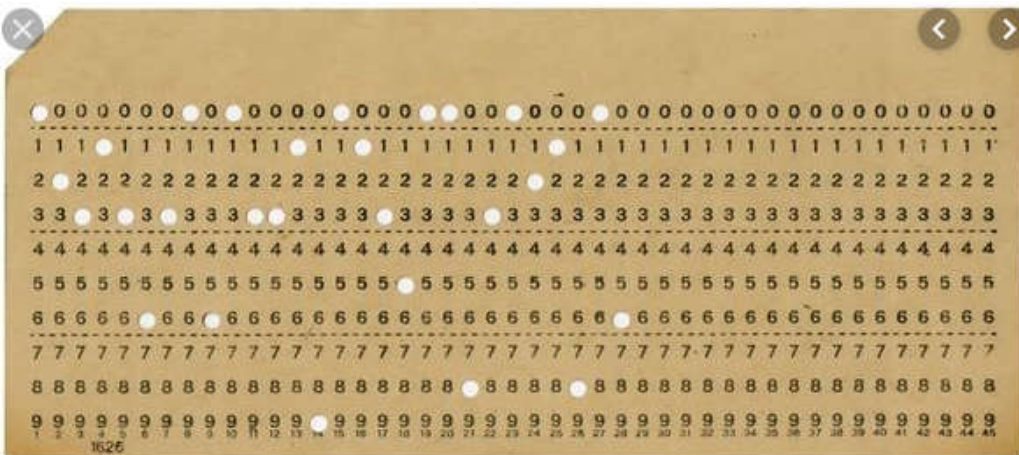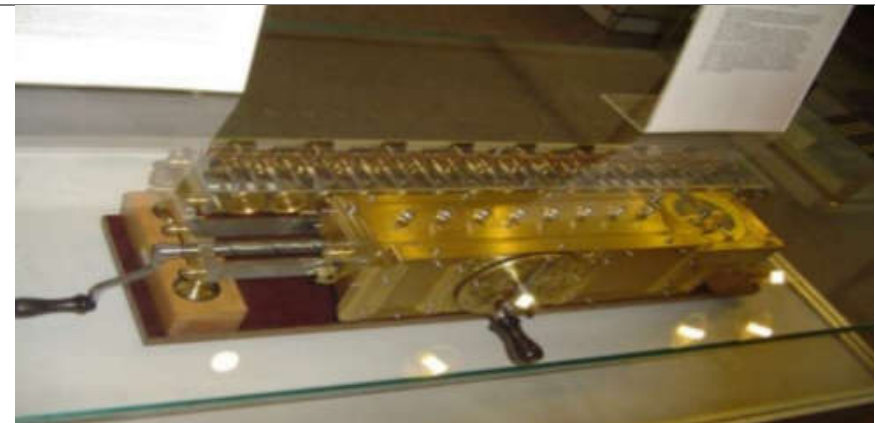Consist of moveable wheels, gears and cylinders

Used to perform simple arithmetic calculations (Addition and Subtraction)

1.4 History of Computer cont..

5. Leibniz's Calculator

German philosopher and mathematician

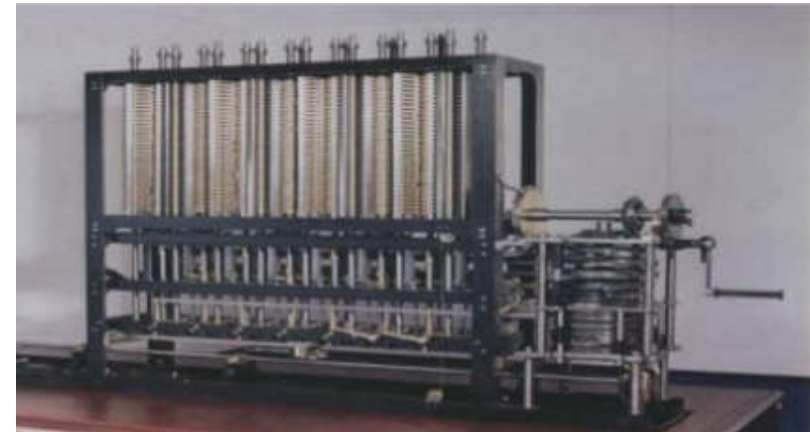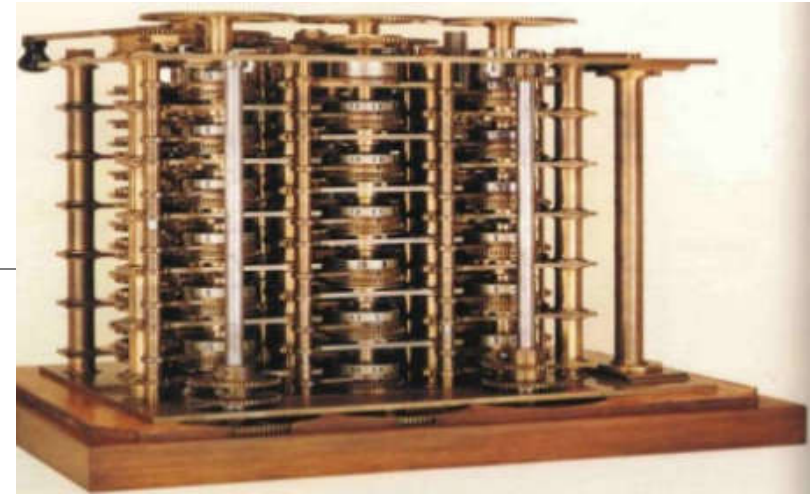Gottfried Leibniz built it around 1673.

6. Punch Cards

was developed by Jacquard in 1801.

Work in Binary 0's and 1's.

Basics of modern computer

1.4 History of Computer cont..

7. **Charles Baggage "Difference Engine" &
"Analytical Engine"**

In 1822 Baggage invented Difference Engine, powered by steam.
Large as locomotive. Machine had the capacity to perform
calculation & print the resutls

In 1833 Baggage 1st General purpose digital computer,
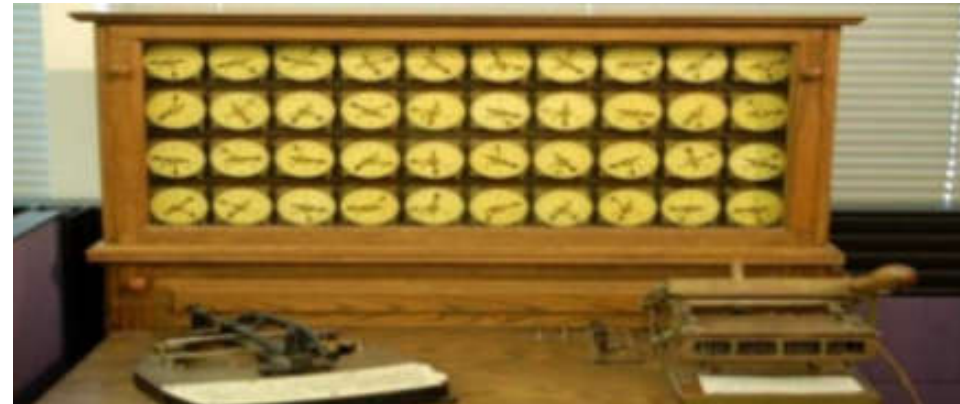which he called Analytical Engine, steam powered engine.

1.4 History of Computer cont..

8. Hollerith's Tabulating Machine

✓In 1889, Herman Hollerith an American invented Tabulating machine,

✓This machine was a punch card reader & had capacity to store & process data.

✓This machine was brought to business world by **.........** Company

Next Class Plan

1. Generations of computer

2. Classification of Computer

3. The computer system

4. Application of Computer

--- The End---