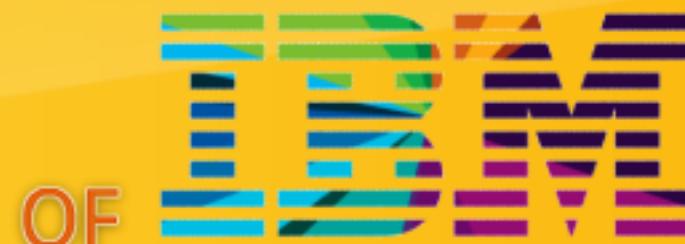




ABOUT THE PROJECT

This project is developed by using the latest technology of IoT. This project is based on the concept of smart traffic management system, used in modern cities. This project consists of various sensors, digital screens and wireless communication modules, which can collect real time data and send it to the central server. This is a big idea.



A large red lightbulb icon with a yellow glow, part of a yellow road sign.

DUSANE ASHISH CHANDRAKANT
M.TECH, ACDS
PRN NO: 170847980003

WHAT IS BIG DATA ?

Every day, creates 2.5 quintillion bytes of data — so much that 90% of the data in the world today has been created in the last two years alone. This data comes from everywhere: sensors used to gather climate information, posts to social media sites, digital pictures and videos, purchase transaction records, and cell phone GPS signals to name a few. This data is **Big Data**.



BIG DATA 3 DIMENSIONS :

- Volume
- Velocity
- Variety



EVALUATION OF IBM ...

IBM

IBM (International Business Machines Corporation) is an American multinational technology company headquartered in Armonk, New York, United States, with operations in over 170 countries. It manufacturers of record-keeping and measuring systems subsequently its formation as a merger of three companies : Computing-Tabulating-Recording Company (CTR) originated in 1911 and was renamed "International Business Machines (IBM)" in 1924.

Charles Ranlett Flint was an American and was the **founder** of the **Computing-Tabulating-Recording Company** which later became IBM. For his financial dealings he earned the moniker "Father of Trusts".

1298 (26) UNITED STATES INVESTOR (July 29, 1911)

Computing - Tabulating - Recording Company

CAPITALIZATION

6% Thirty-Year Sinking Fund Gold Bonds \$7,000,000

Dated July 15, 1911 Due July 1st 1941 Interest January and July
Capital Stock (All One Class) - \$10,500,000

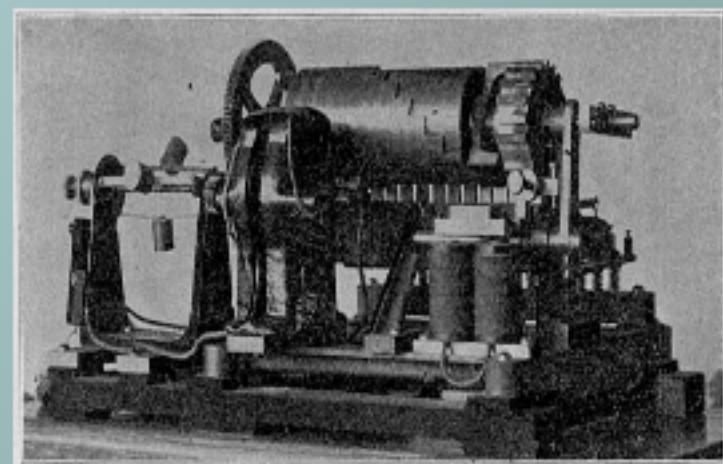
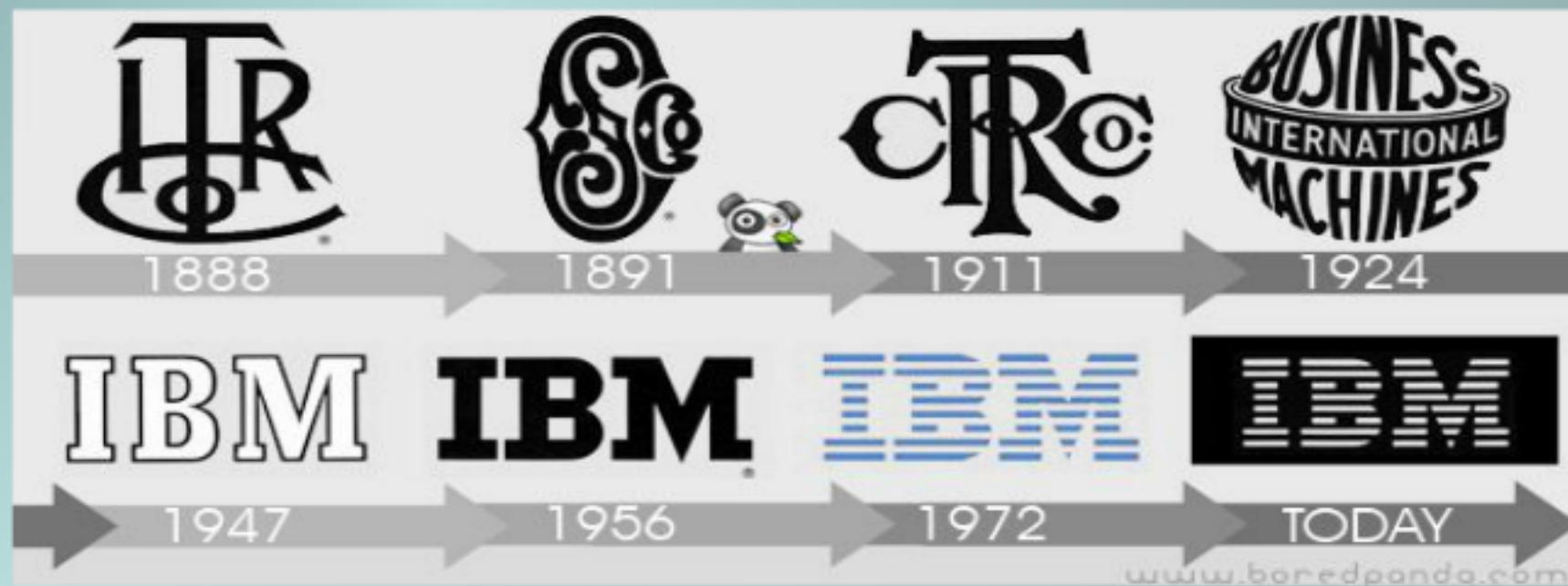


Fig. 6.—Integrating Machine.

1915: The company's founder, Thomas J. Watson, Sr. who coined IBM's motto "Think," elaborates on his vision for thought.

1924: CTR becomes International Business Machines aka IBM. Here's a look at the history of the IBM logo from its birth through the CTR days until today.



1923 :

The Los Angeles Police Department uses IBM tabulating equipment to process criminal and arrest records.

The Collected data is analyzed to identify criminal methods and boost crime solving ; insights derived from this data also help improve the quality and efficient of the police department.



1937:

"The biggest accounting operation of all time" **The U.S. Government partners with IBM to implement the U.S. Social Security Act of 1935**, which requires creation & maintenance of employment records on 26 million Americans. IBM helps design the accounting methods & provides the equipment to administer - including the newly invented **IBM 007 Collator**.

MONDAY MORNING, JANUARY 10, 1955

BIGGEST BOOKKEEPING JOB BEGINS

Social Security Board Has Gigantic Task

By KATE RICHARDSON

Baltimore, Jan. 9.—The world's biggest bookkeeping job is under way here.

Thanks to the Social Security Board, this off is now better for me than more than 100 million others in Maryland. You have to know all these security benefits and how to get them. For example, if you're as big as Maryland, there're help counts, social and medical, written on checks that will pay pensions a good many years ahead.

What you can expect from the Social Security Board is that you'll receive your pension and other benefits on time, and without any trouble. By the way, the Social Security Board is the top on the map in Baltimore. You could hardly expect anything less from a group of people who have worked so hard to make sure that everyone gets what they're entitled to.

John G. White

John G. White is a man of great experience and knowledge in the field of Social Security. He has been working for the Social Security Board since its inception, and has been instrumental in the development of many of the programs and services offered by the agency. He is currently the Director of the Social Security Office in Baltimore, Maryland.

John G. White

John G. White is the man of the month.

This is the second part of the story of our banking life in the United States. The first part was written to "inform people about the history of the United States and the banking system." This part continues the story of the banking system in the United States, specifically focusing on the growth of the banking industry and the impact it had on the economy.

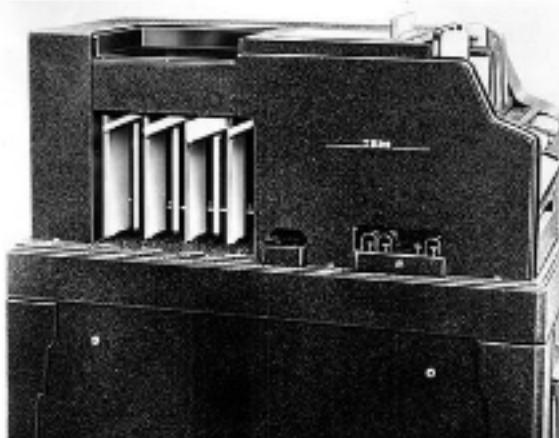
The banking system in the United States has grown rapidly over the past century, and today it is one of the largest and most important sectors of the economy. It plays a crucial role in the functioning of the economy, providing credit to businesses and individuals, and facilitating the movement of money throughout the country.

Today, the banking system in the United States is a complex and sophisticated network of institutions, ranging from small local banks to large national chains. There are also many non-bank financial institutions, such as credit unions and savings and loan associations, which provide similar services to consumers and businesses.

The banking system in the United States has played a significant role in the development of the country, and its influence can be seen in almost every aspect of American life. It is a vital part of the economy, and its continued growth and success are essential for the long-term health and prosperity of the nation.

John G. White is the man of the month.

IBM 77 electric punched card collator



1934 - 1948 :

The **IBM 405 alphabetic electric punched card** accounting machine was a combined adding, subtracting and printing machine that printed complete reports from punched accounting machine cards. It could be used to list both alphabetical and numerical details from individual accounting machine cards.

It could list cards at the rate of **80 cards a minute** and were accumulated without listing at either 80 cards per minute as specified. It Introduced in **1934**

The **IBM 407 alphabetic electric punched card** with advanced features that provided high production and complete flexibility. Introduced on **July 19, 1948**, the **407 read 80-column cards**, positioned forms, recorded details, and added and subtracted to print any desired combination of totals up to **150 lines per minute**.

IBM 405 electric punched card accounting machine



IBM 407 accounting machine



1948 :

IBM 604 'Electronic Calculator' (1948)

Methods for performing calculations like addition, subtraction, multiplication, division. Instead of using a keyboard and screen, input and output was by means of punched cards. The 604 was IBM's first step into the realm of electronic computers, and at the time had many innovative features.

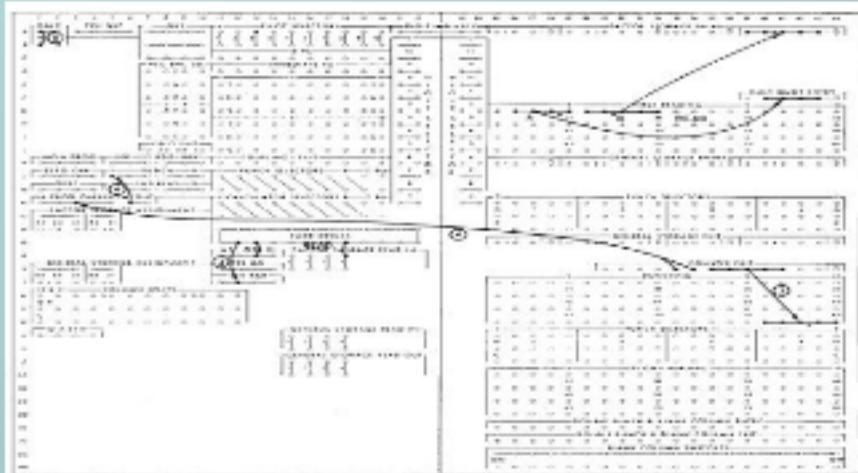


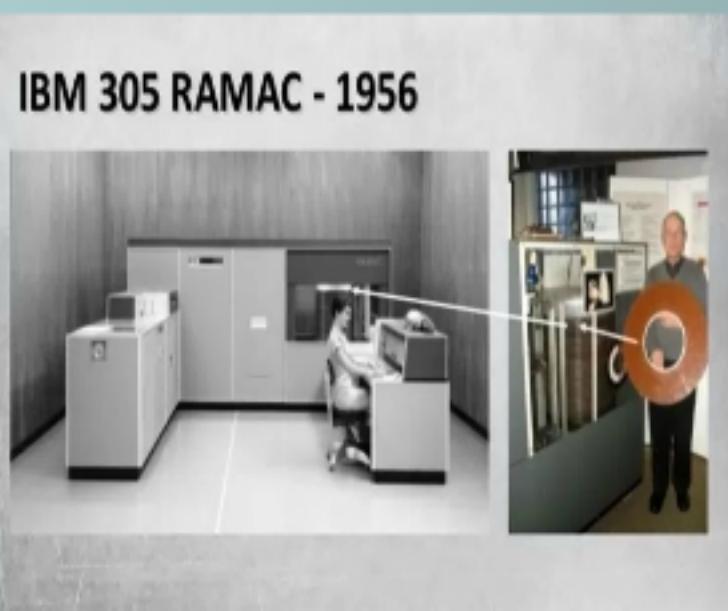
FIGURE 7A. MULTIPLICATION



FIGURE 8. KEYS AND LIGHTS, TYPE 604

1956 : IBM 305 RAMAC

First magnetic Hard disk drive. IBM introduces the world's first magnetic hard disk for data storage. **The IBM 305 RAMAC (Random Access Method of Accounting and Control)** offers unprecedented performance by permitting random access to any of the million characters distributed over both sides of 50 two-foot-diameter disks. Produced in California, IBM's first hard disk stored about **4 mb** of data per square inch and cost about **\$10,000 per megabyte**. By 1997, the cost of storing a megabyte had dropped to around ten cents.



1962 : IBM 7090 MAINFRAME & SABRE

Sabre (Semi-automated Business Research Environment) Global Distribution System, is used by travel agents around the world with more than 400 airlines, 220,000 hotels, 42 car rental brands, 38 rail providers and 17 cruise lines. The Sabre GDS enables companies such as **American Airlines** to search, price, book, and ticket travel services provided by **airlines, hotels, car rental companies**, rail providers and tour operators.

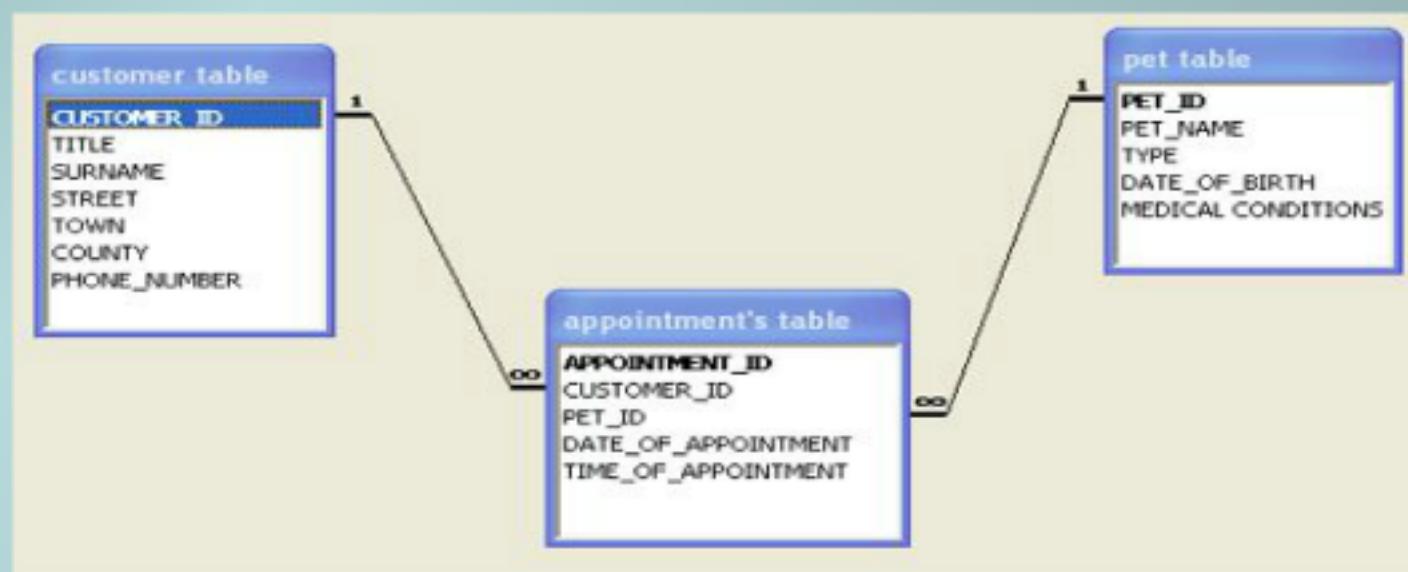
The **IBM 7090** is a second-generation transistorized version of the earlier IBM 709 vacuum tube mainframe computers that was designed for "large-scale scientific and technological applications". In 1962, a typical **system sold for \$2.9 million or could be rented for \$63,500 a month**.

The 7090 uses a **36-bit word length**, with an address space of **32,768 words (15-bit addresses)**.



1970 - RELATIONAL DATABASES :

IBM introduces relational databases which call for information stored within a computer to be arranged in **easy-to-interpret tables to access and manage large amounts of data**. Today, nearly all database structures are based on the IBM concept of relational databases. Virtually all relational database systems use SQL for querying and maintaining the database.



1985 - 1988 :

IBM signs a deal with the National Institute of Health (NIH), IBM initially provides six 3090 Model 300 E mainframes with vector facilities which will allow the NIH to increase incremental CPU capacity 35% for HEALTH INDUSTRIES

**IBM 3090
(1985)**

Introduced in 1985, the IBM 3090 Processor Complex contained four central processors and 128 megabytes of storage



2000: IBM ASCI WHITE :

Fastest Supercomputer. IBM delivers the world's most powerful computer to the US Department of Energy, powerful enough to process an Internet transaction for every person on Earth in less than a minute. This computer is **1,000 times more powerful than Deep Blue**, the supercomputer that **beat Garry Kasparov in chess in 1997**. first time a computer had defeated a reigning **world champion** in a traditional match. Kasparov resigned after 19 moves.

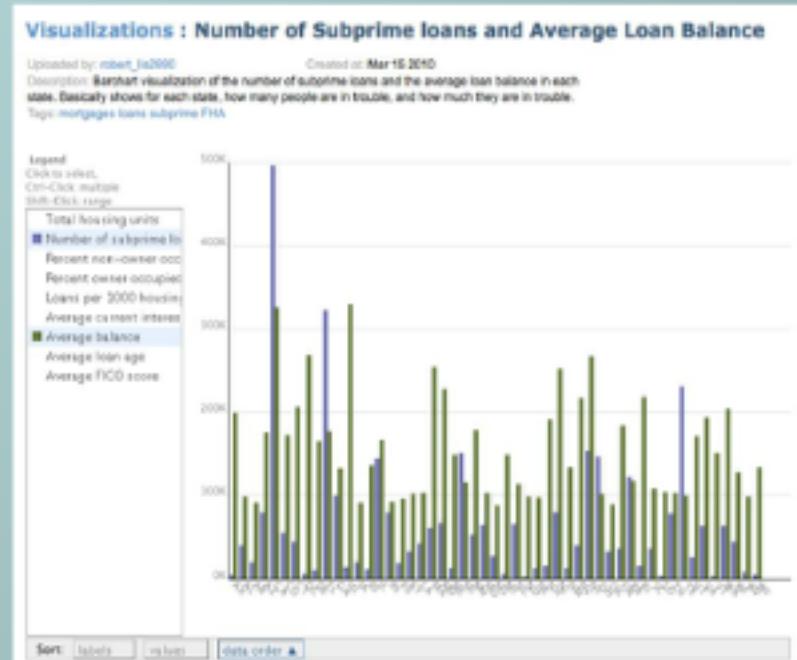


The ASCI White
supercomputer system



2007 : IBM MANY EYES

- **IBM launches MANY EYES the data visualization tool.**
- Described as a tool that democratizes data visualizations, the appeal of Many Eyes is that anyone with a good set of data can make attractive visualizations. Here's how their website explains it:
 - Simply follow three steps:
 - Upload your public data set. Visualizations created on the Many Eyes website work from simple data formats, such as a spreadsheet or text files.
 - Select from a wide variety of visualizations or one recommended by Many Eyes.



2011 : IBM WATSON

IBM Watson is a question answering computer system capable of **answering questions posed in natural language**, developed in IBM's DeepQA project by a research team led by principal investigator David Ferrucci. Watson was named after IBM's first CEO, industrialist Thomas J. Watson. The computer system was specifically developed to answer questions on the **quiz show Jeopardy!** and, in 2011, the Watson computer system competed on Jeopardy! against former winners Brad Rutter and Ken Jennings **winning the first place prize of \$1 million**.

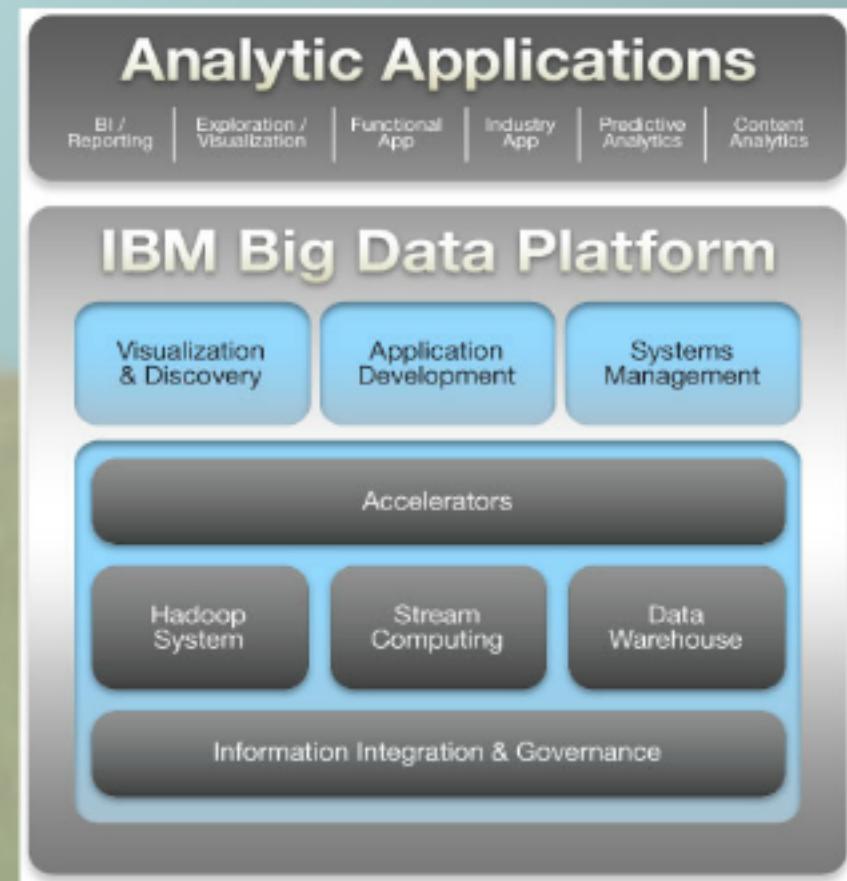
20th Century Fox has partnered with IBM Research to develop the first-ever "cognitive movie trailer" for its upcoming suspense/horror film, "Morgan".



IBM BIG DATA PLATFORM :

IBM's Integrated Big Data Platform has Four Core Capabilities :

- Hadoop-based Analytics
- Stream Computing
- Data Warehousing
- Information Integration and Governance



FUTURE OF IBM

In the coming years, IBM will look to dominate the predictive analytics space, focusing on assisting firms respond to future events.

As for cloud computing, it's clear the sector is going to be huge. It's equally clear the long-term future (we're talking the next 50 years or so) is going to be very cloudy indeed for IBM. The company already does plenty in this space, spreading its net fairly wide from security offerings and transitional services, to private cloud storage.

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Thank you!



ABOUT THE PROJECT

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