COBOL

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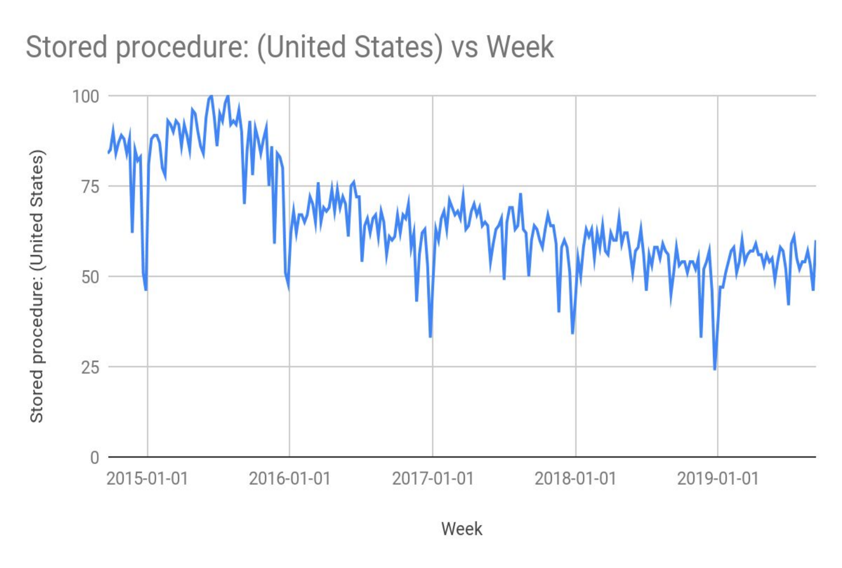
COBOL History

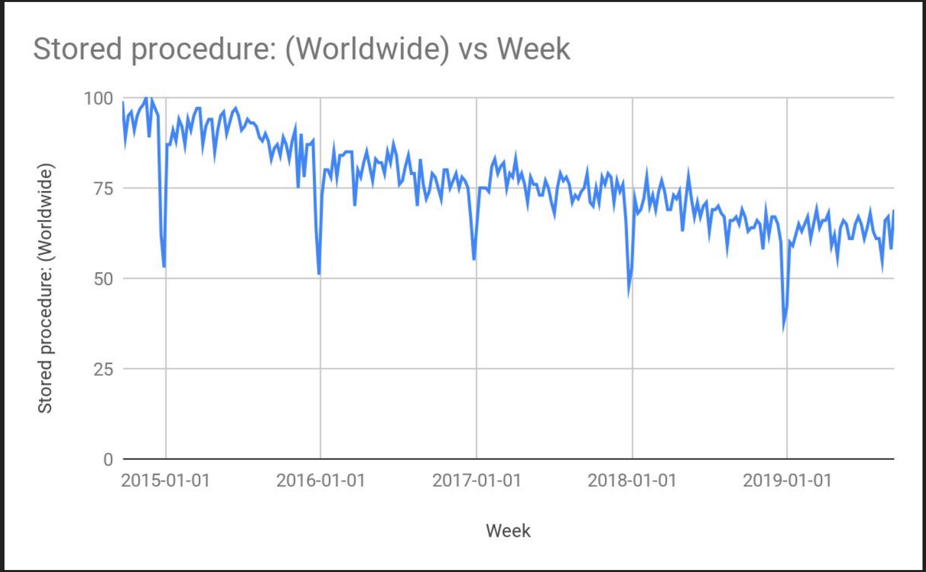
- COBOL means ‘Common Business Oriented Language’
- It was formed in 1959
- One of the earliest high level programming languages
- CODASYL: the Conference/Committee on Data Systems Languages - used to guide the development of programming languages that could be used on many computers
- Was partly based on previous programming language design by Grace Hopper who created one of the first English-like data processing language
- Multi Platform Computer
- A scalable language
- Still used today

Google Trends: COBOL

USA

GLOBAL





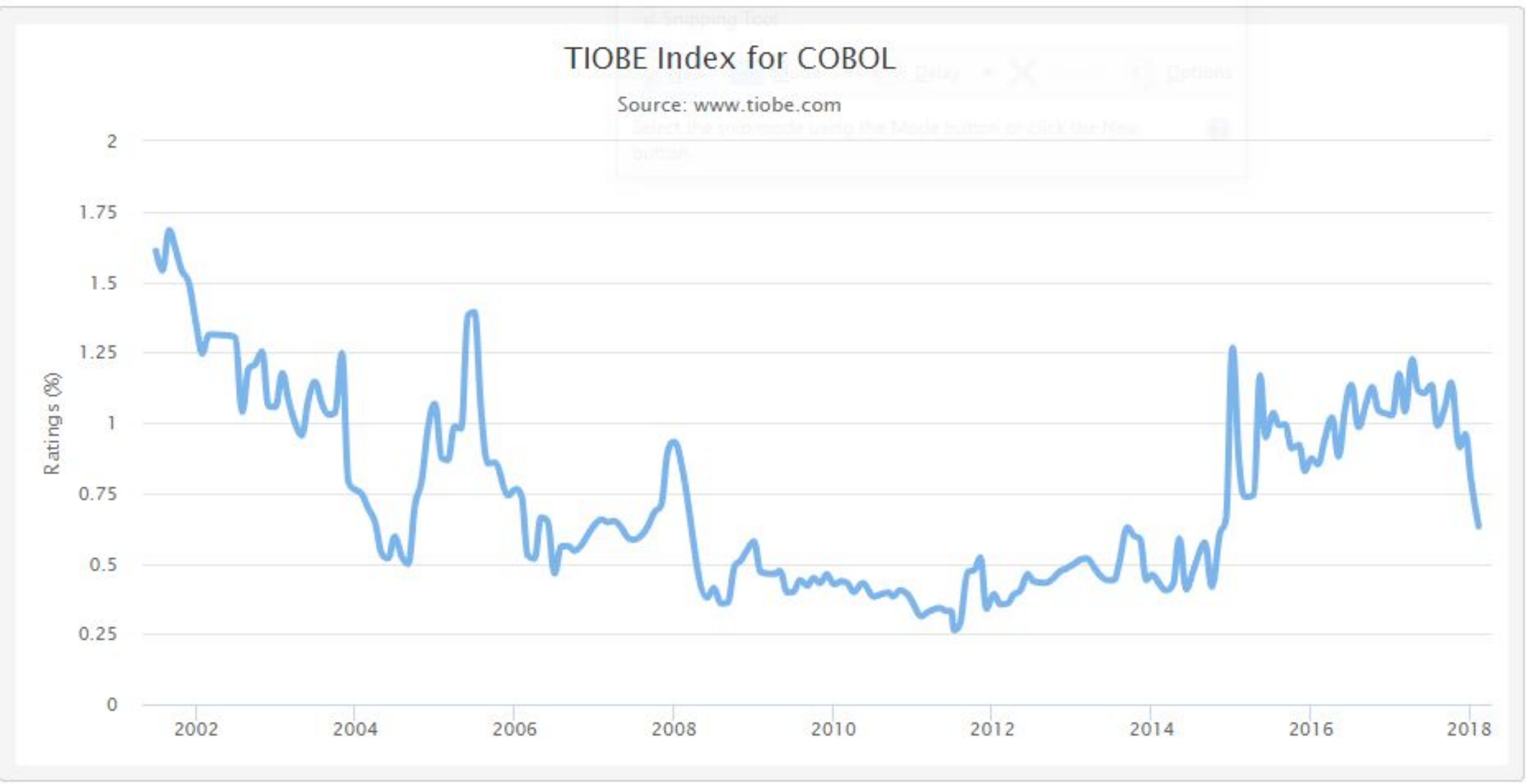
City: (40)

1. Eden Prairie
2. NY number (20th)
3. Least is Philly

World: (70)

1. China
2. US (18th)
3. Brazil

TIOBE: COBOL



TIOBE Index for COBOL

Source: www.tiobe.com

Range of use

- Business, finance, administrative systems, banking
- Mainframe computers

~ 220 Bn
lines of code

70 - 80%
of all business
transactions

95% ATM
transactions
daily

→ High performance, accuracy

Features of COBOL

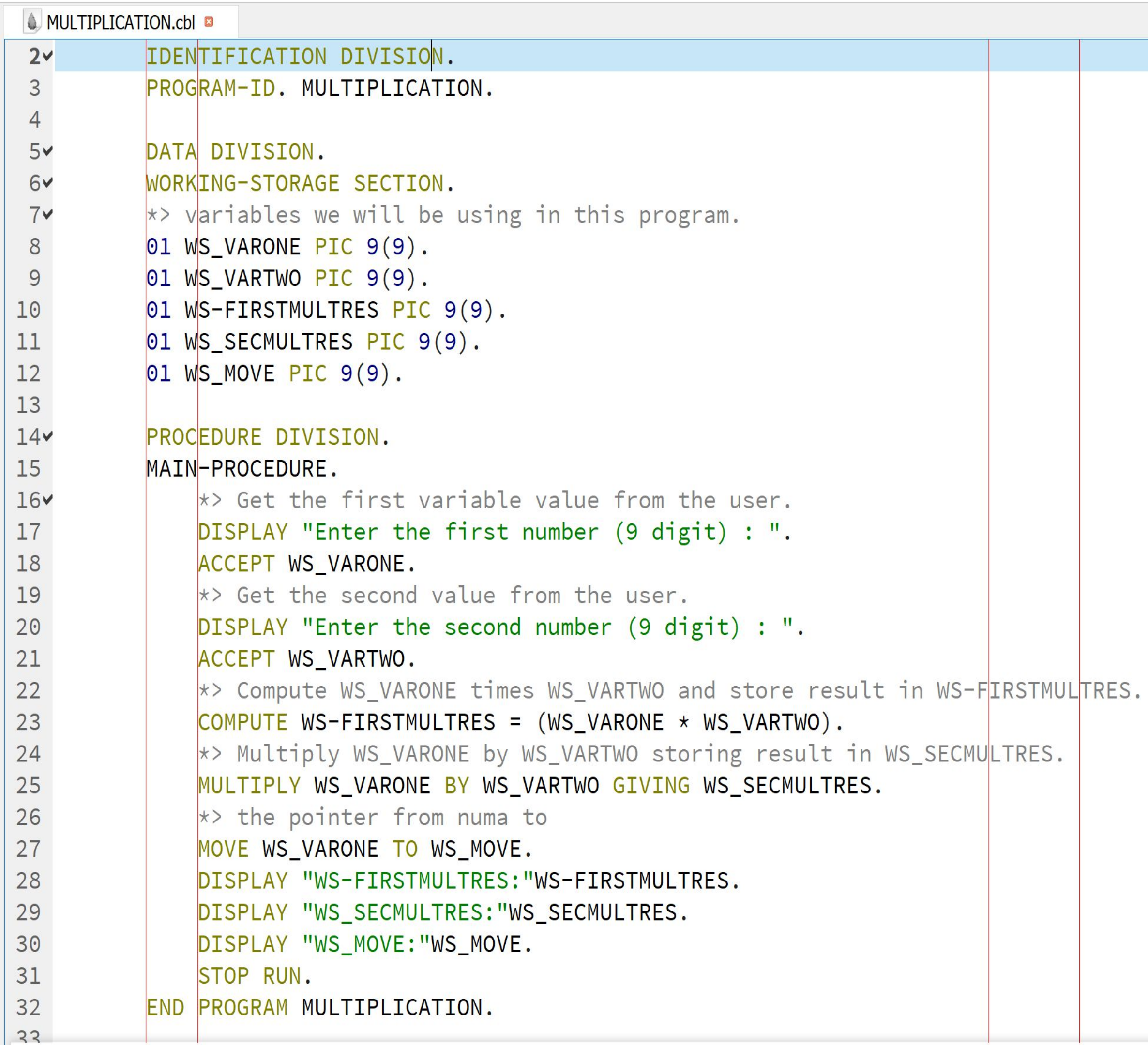
- Standard Language
  - Can be compiled on machines
  - No pointers
  - No user defined types or functions
- Business Oriented
  - Can easily handle large amounts of data
  - Advanced file handling capabilities
- Robust Language
  - Can be debugged, tested, and compiled on almost every platform
- Structured Language
  - Language is very easy to read
  - Can be debugged reliably

Features Exclusive to COBOL

- Long Lasting
  - Has adapted to new changes and continues to be used across all platforms
  - Receives new updates every year
- Work Friendly
  - Works excellently in a business setting
  - If maintained, COBOL projects can last decades
  - Reliable with high-budget projects
- Versatility
  - Continues to serve as the primary foundation for many computer mainframes
  - Hundreds of companies still use COBOL to this day

COBOL Code

- OpenCOBOL IDE
- Multiplication Program
- Source code is divided in following divisions:
    - Identification Division
    - Environment Division
    - Data Division
    - Procedure Division

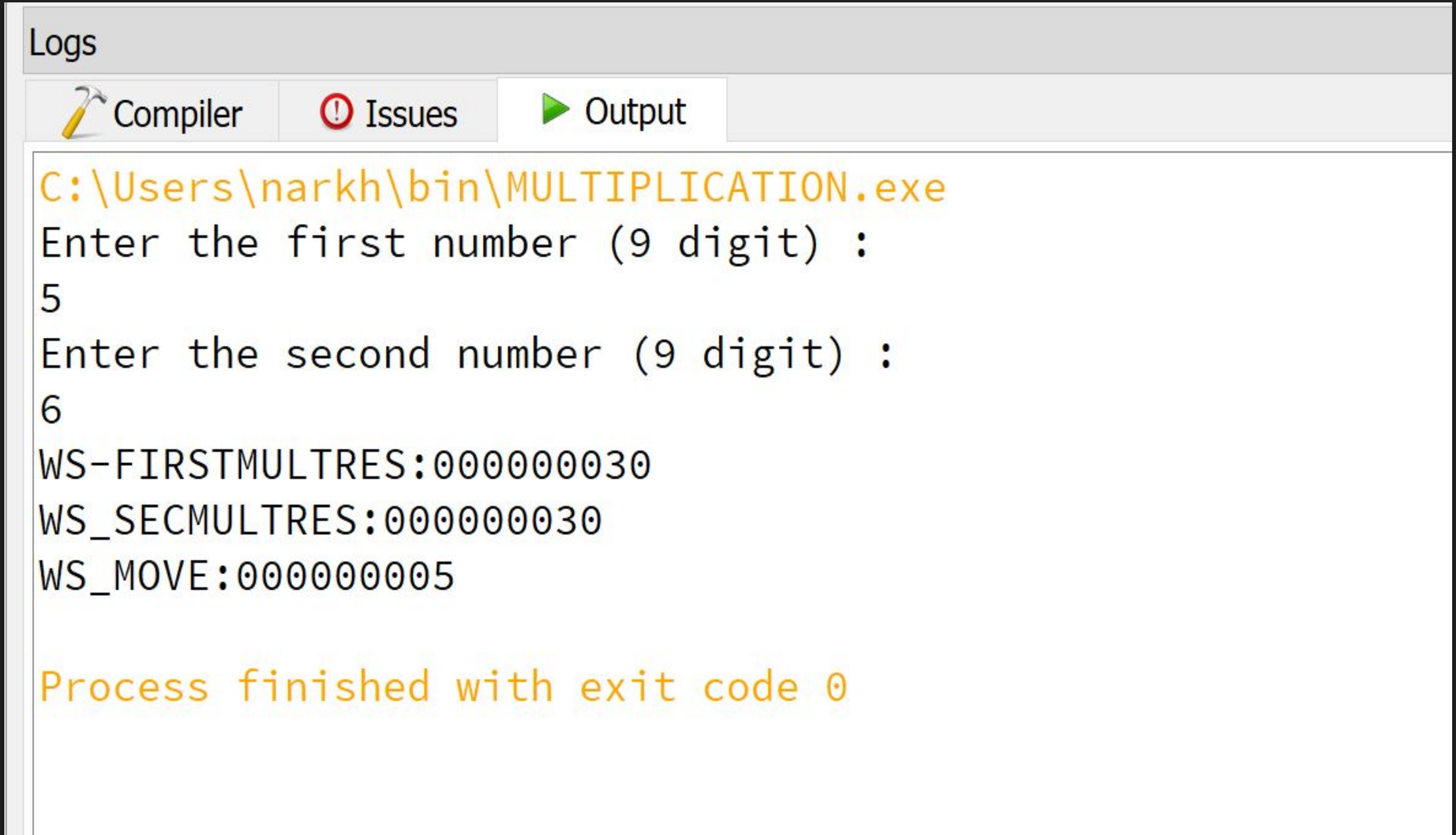


```
       IDENTIFICATION DIVISION.
       PROGRAM-ID. MULTIPLICATION.

       DATA DIVISION.
       WORKING-STORAGE SECTION.
       *> variables we will be using in this program.
       01 WS_VARONE PIC 9(9).
       01 WS_VARTWO PIC 9(9).
       01 WS-FIRSTMULTRES PIC 9(9).
       01 WS_SECMULTRES PIC 9(9).
       01 WS_MOVE PIC 9(9).

       PROCEDURE DIVISION.
       MAIN-PROCEDURE.
           *> Get the first variable value from the user.
           DISPLAY "Enter the first number (9 digit) : ".
           ACCEPT WS_VARONE.
           *> Get the second value from the user.
           DISPLAY "Enter the second number (9 digit) : ".
           ACCEPT WS_VARTWO.
           *> Compute WS_VARONE times WS_VARTWO and store result in WS-FIRSTMULTRES.
           COMPUTE WS-FIRSTMULTRES = (WS_VARONE * WS_VARTWO).
           *> Multiply WS_VARONE by WS_VARTWO storing result in WS_SECMULTRES.
           MULTIPLY WS_VARONE BY WS_VARTWO GIVING WS_SECMULTRES.
           *> the pointer from numa to
           MOVE WS_VARONE TO WS_MOVE.
           DISPLAY "WS-FIRSTMULTRES:"WS-FIRSTMULTRES.
           DISPLAY "WS_SECMULTRES:"WS_SECMULTRES.
           DISPLAY "WS_MOVE:"WS_MOVE.
           STOP RUN.
       END PROGRAM MULTIPLICATION.
```

COBOL Code Result



```
C:\Users\narkh\bin\MULTIPLICATION.exe
Enter the first number (9 digit) :
5
Enter the second number (9 digit) :
6
WS-FIRSTMULTRES:000000030
WS_SECMULTRES:000000030
WS_MOVE:000000005

Process finished with exit code 0
```

COBOL Code Video

Click center of black box to play video

Conclusion

COBOL is very interesting, easy to learn, and a widely used language for business and financial applications which was designed to accommodate complex data sets while efficiently using computer resources.

References

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