HISTORY OF PROGRAMMING

UNLOCKING DIFFICULTIES

Compiler – Computer software that translates (compiles) source code written in a high-level language (e.g., C++) into a set of machine-language instruction

Language - a system of conventional spoken or written symbols by means of which human beings, as members of a social group and participants in its culture, express themselves.

History - studies the chronological record of events.

WHAT IS PROGRAMMING?

- The process of developing and implementing various sets of instructions to enable a computer to do a certain task.
- The act or process of planning or writing a program.

WHAT IS PROGRAM?

A program is written as a series of human understandable computer instructions that can be read by a compiler and linker.

HISTORY OF PROGRAMMING

1842-1843

(FIRST COMPUTER PROGRAM CREATED BY ADA LOVELACE)

- Work on the Charles Babbage's analytical engine. A complete detail a method for calculating Bernoulli numbers with the Engine.

Augusta Ada Byron
World's First Computer Programmer

1890

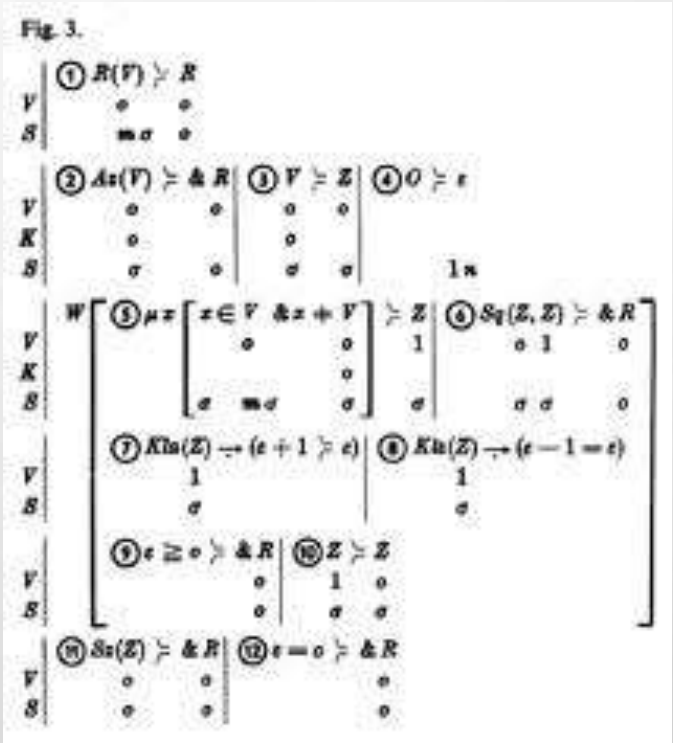
(CENSUS DATA ON PUNCH CARDS ENCODED BY HERMAN HOLLERITH)

Herman Hollerith

1943-1945

(PLANKALKÜL DEVELOPED FOR THE GERMAN Z3 BY KONRAD ZUSE)

An early high-level programming language to be designed for a computer but was not implemented.

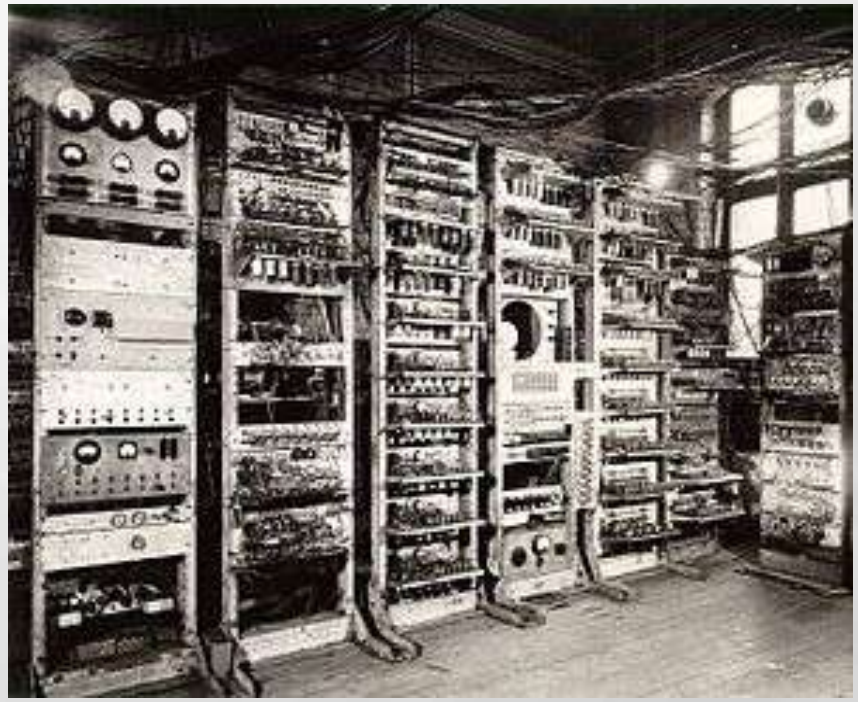


1949
(SHORT CODE DEVELOP BY JOHN MAUCHLY)

One of the first high-level languages ever developed for an electronic computer. Short code statements are represented by mathematical expressions.

1952
(MANCHESTER MARK 1 DEVELOPED BY ALICK GLENNIE)

- Considered as first compiled high – level programming language.
- Automatically convert language into a machine code.



1957
(FORTRAN CREATED BY JOHN BACKUS)

- For numeric and scientific computing (as an alternative to assembly language).
- Oldest programming language used today.(NASA)

1959 COBOL

(COMMON BUSINESS- ORIENTED LANGUAGE) CREATED BY SHORT RANGE COMMITTEE)

High-level. Primarily for business computing. First programming language to be mandated by the US Department of Defense.

Primary Uses: Business software (esp. finance and administration systems, but also banks, insurance agencies, governments, military agencies)

Used By: Credit cards, ATMs

**Fun Fact* Action movie The Terminator used samples of Cobol source code for the text shown in the Terminator's vision display.

1964

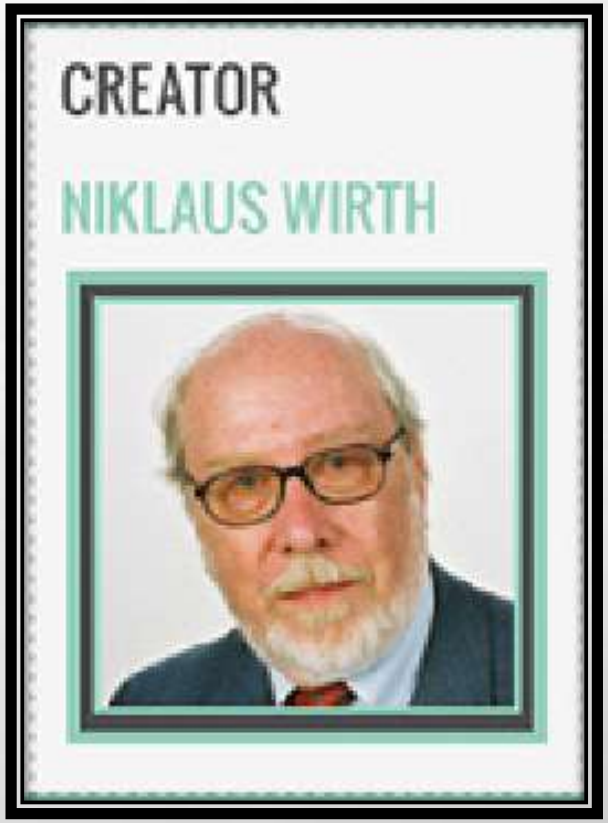
BASIC (BEGINNER'S ALL-PURPOSE SYMBOLIC INSTRUCTION CODE) CREATED BY JOHN GEORGE KENNY AND THOMAS EUGENE KURTZ (SRC)

- Designed for simplicity.
- Computer games were often written in Basic.(Microsoft's Altair, Apple II)

1970

(PASCAL (BLAISE PASCAL) CREATED BY NIKLAUS WIRTH)

- For teaching structured programming and data structuring.
  Commonly used for Windows Application development.(SKYPE)

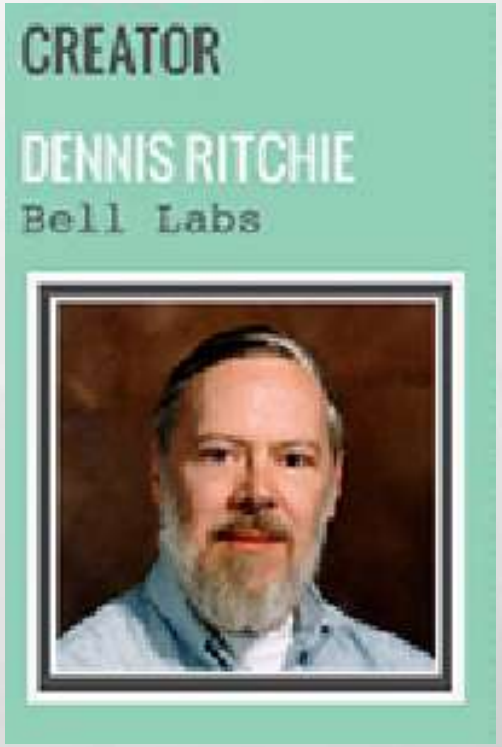


1972

(C CREATED BY DENNIS RITCHIE OF BELL LABS)

Currently the world's most popular programming language.2 Many leading languages are derivatives, including C#, Java, JavaScript, Perl, PHP, and Python.

System programming, computer game development.(UNIX)



1980

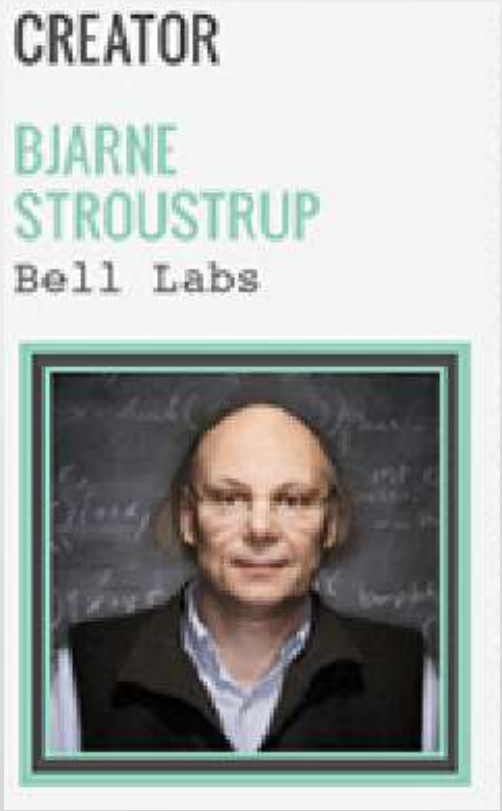
(ADA (AFTER ADA LOVELACE, CREATED BY JEAN ICHBIAH)

- Derived from Pascal.
- For developing large software systems.(NASA,NSTAR)
- Primary Uses: Dept. of Defense, banking, manufacturing, transportation, commercial aviation

1983

(C++ (FORMERLY "C WITH CLASSES") CREATOR BJARNE STROUSTRUP)

- An extension of C, with enhancements such as classes, virtual functions, and templates.
- Primary Uses: Commercial application development, embedded software, server/client applications, video games
- Used By: Adobe, Google Chrome, Mozilla Firefox, Microsoft Internet Explorer



1983

OBJECTIVE-C (OBJECT-ORIENTED EXTENSION OF "C")
CREATOR: BRAD COX AND TOM LOVE OF STEPSTONE

CREATOR

BRAD COX AND TOM LOVE

Stepstone

- Expanded on C, adding message-passing functionality based on Smalltalk language.
- Used By: Apple's OS X and iOS operating systems

1991

PYTHON (FOR BRITISH COMEDY TROUPE MONTY PYTHON)

CREATOR: GUIDO VAN ROSSUM OF CWI

- Created to support a variety of Programming styles and be fun to use.
- Primary Uses: Web application, software development, information security
- (Google, Yahoo, Spotify)

1993

RUBY (THE BIRTHSTONE OF ONE OF THE CREATOR'S COLLABORATOR) CREATOR: YUKIHIRO MATSUMOTO

- Designed for productive and enjoyable programming.(Twitter, Hulu, Groupon)
  Primary Uses: Web application development

1994

(JAVA CREATOR: JAMES GOSLING OF MICROSYSTEMS)

- Made for an interactive TV project. Cross-platform functionality. Second most popular language (behind C).(Android OS/apps)
- Primary Uses: Network programming, web application development, software development, Graphical User Interface development

1994

(JAVA CREATOR: JAMES GOSLING OF MICROSYSTEMS)

CREATOR

JAMES GOSLING

Sun Microsystems

USED BY

Android OS/apps

1995

(PHP ("PERSONAL HOME PAGE") CREATOR: RASMUS LERDORF)

- For building dynamic web pages. Most widely used open-source software by enterprises.
- Primary Uses: Building/maintaining dynamic web pages, server-side development
- Used By: Facebook, Wikipedia, Digg, WordPress, Joomla

1995

(PHP ("PERSONAL HOME PAGE") CREATOR: RASMUS LERDORF)

CREATOR

RASMUS LERDORF

USED BY

Facebook,
Wikipedia, Digg,
WordPress,
Joomla

facebook

digg

1996

(JAVASCRIPT (FINAL CHOICE AFTER "MOCHA" AND "LIVESCRIPT" CREATOR: BRENDAN EICH OF NETSCAPE)

- Created to extend web page functionality.
- Dynamic web pages use for form submission/validation, interactivity, animations, user activity tracking, etc.
- Primary Uses: Dynamic web development, PDF documents, web browsers, desktop widgets
- Used By: Gmail, Adobe Photoshop, Mozilla Firefox

1996

(JAVASCRIPT (FINAL CHOICE AFTER "MOCHA" AND "LIVESCRIPT" CREATOR: BRENDAN EICH OF NETSCAPE)

CREATOR

BRENDAN EICH

Netscape

USED BY

Gmail, Adobe Photoshop, Mozilla Firefox

Gmail

DID YOU UNDERSTAND WHAT I HAVE DISCUSSED FOR TODAY?

Multiple Choice. Write the letter of the correct answer.

1. One of the first high-level languages ever developed for an electronic computer.

a. Autocode
b. Short Code
c. ASCII Code
d. Source Code

2. _____ is a process of planning and writing a program.

a. Language
b. Program
c. Basic
d. Programming

3. The following are examples of programming languages EXCEPT:__

a. C++
b. Pascal
c. Ada
d. Adobe

4. She was recognized as the world's first computer programmer _____.
   a. Augusta Ada Byron
   b. Bell Labs
   c. Niklaus Wirth
   d. Brenda Eich
5. PHP stands for:
   a. Personal Home Page Preprocessor
   b. Pretty Home Pages Preprocessor
   c. Program Hypertext
   d. Programming Hypertext

KEY TO CORRECTION

1. B
2. D
3. D
4. A
5. A

ASSIGNMENTS

Guide Questions:

1. What are algorithms, pseudocodes and flowcharts?
2. What are the Symbols used in Flowcharts?
3. What are the advantages of creating algorithms, pseudocodes and flowcharts?

References:

Intro to Visual Basic by Editha

http://www.wikipedia.com

THANK YOU FOR LISTENING CLASS!

GOOD BYE AND THANK YOU! ☺