Actividad 1.1

Programming Language History

- Von Neumann created 2 key concepts for programming languages:
  - Shared-program technique. This technique stated that the actual computer hardware should be simple and not need to be hand-wired for each program. This means that complex instructions should be used to control a simple hardware.
  - Conditional control transfer. Subroutines and small, reusable blocks of code. These blocks of code could be used in any order instead of the original chronological order. It also included logical statements to control the flow, such as IF, THEN and FOR loops.
- FORTRAN. First major language.
  - FORmula TRANslating system.
  - Designed at IBM for scientific computing.
  - Business computing started been developed, which led to COBOL.
- LISP.
  - Created by John McCarthy from MIT.
  - LISt Processing.
  - It was designed for AI reasearch. Because it was designed for a specialized field, it has no syntax. It is coded in parse trees, which is usually the intermediate level compiler-generated code in languages like JAVA and C.
  - Only uses lists as data types.
- ALGOL. Created for scientific use in 1958. Led to the creation of C and JAVA.
  - Implemented novel concepts such as recurring functions.
- PASCAL.
  - Need for a good teaching tools.
  - Combined the "best" elements of COBOL, FORTRAN and ALGOL.
  - Combination of features, removal of bugs and irregularities, input/output and solid mathematical functions.
  - Pointer data type.
- C
  - 1972
  - Similarities to PASCAL.

- OOP.
  - New programming method.
  - Object Oriented Programming.
  - Objects are pieces of data that can be packaged and manipulated by the programmer.
  - C++ uses the power of C with OOP.