

## HW6\_HAMZA\_YOĞURTCUOĞLU\_171044086

**1)** Assembler produces from symbolic system to machine code, compiler produces from high level language (C, PYTHON...) to another language or which language you want. If we write assembling code and change our computer, we can't directly move to other computer. Assembling code must be written compatible to instruction set of other computer which doesn't want such as disadvantage for compiler.

**2) a) Functional programming languages** that take inputs and produce output. But the inputs were created previously and are functional. Each output is a small used programming as the input of the others.

**Imperative programming languages** process data. It will produce the desired result. Programming process to be performed to develop a set of instructions. Imperative P.L is paradigm of C, Fortran, Python etc...

**Declarative programming languages** define the problem to be solved. It applied a predefined algorithm to solve the defined problem.

**b) C :** Imperative programming language

SQL : Declarative programming language

C# : Object-Oriented, Functional, Declarative, Imperative Programming Language

F# : Functional Programming Language

Haskell : Functional Programming Language

Prolog : Declarative Programming Language

Common Lisp : Object-Oriented, Functional Programming Language

Java : Object-Oriented and Imperative Programming Language

**c)** Common Lisp is one of the oldest and most powerful language that was inspired from what John McCarthy invented his language in 1958. Symbols are used instead of numbers

in this programming language that allows to write programmable programs. This Language can be used Artificial Intelligence Application.

SQL was existed in 1974. Its exact name is Structured Query Language that is developed by IBM. With this program we can access it by creating database on your own computer. It is also possible to remotely access a server located elsewhere. In the other side, Unlimited category algorithms can be created. But its structure is not directly supported . So, can be existed some trouble. Normally, in language such as ANCI C, ANCI Fortran , you don't have too much trouble getting data base to another language which requires a little change. However when it comes to SQL , unfortunately this situation is very problematic. Main reason is what SQL is so confused.

**3)** (All processes was paid attention process priority)

**a)**  $4 * 6 \rightarrow 24 + 24 = 48$

**b)**  $(6 - 3 * 1) \rightarrow - 3 * 1 \rightarrow ( 6 - 3 ) \rightarrow 27 / 3 = 9$

**c)**  $4 * 6 \rightarrow 24 / 2 \rightarrow 17 \% 2 \rightarrow 12 + 1 = 13$

**d)**  $3 * 2 \rightarrow 6 > 2 \rightarrow 1 + 6 \rightarrow 7 \&\& 0 = 0$

**4)** (topla(carp(bol(topla vize\_1 vize\_2) 2) 0.6)(carp final\_notu 0.6))

**5)** Bakiye = Eski\_bakiye + Maaş

Faturalar = Elektrik + Doğalgaz + Su + Telefon + Internet

Son\_Bakiye = Bakiye - Faturalar