**Task 1**

What is OOD ? why we use it? Who use it ?

Object-oriented design is the process of using an object-oriented methodology to design a computing system or application. This technique enables the implementation of a software solution based on the concepts of objects. OOD serves as part of the object-oriented programming (OOP) process or lifecycle. The input for object-oriented design is provided by the output of [object-oriented analysis](https://en.wikipedia.org/wiki/Object-oriented_analysis_and_design).

The purpose of Object-Oriented design is to define the classes (and their relationships) that are needed to build a system that meets the requirements contained in the Software Requirements Specification.

**Tack 2**

What is the operating system core language ?

Unix-Kernel, Microsoft Windows utilities and operating system applications, and a big segment of Android operating system have all been written in C language.

C is the programming language most commonly used and recommended for writing operating systems. For this reason, we are going to recommend learning and using C for OS development. However, other languages such as C++ and Python can also be used.

# some websites resalts was c and assemble and other was c and c++

**Task 3**

What are the first 10 programming languages appeared?

**1949**: Assembly language was first used as a type of computer programming language that was able to simplify machine code language, which is necessary for telling a computer what to do.

**1952**: Alick Glennie developed Autocode, which some consider to be the first compiled computer programming language. This means it could be translated directly into machine code.

**1957**: [John Backus](http://www.columbia.edu/cu/computinghistory/backus.html) created FORTRAN, which is a computer programming language for working with scientific, mathematical, and statistical projects.

**1958**: Algol was created as an algorithmic language. It was also a precursor to programming languages such as Java and C.

**1959:**[COBOL](https://americanhistory.si.edu/cobol/introduction) was created by Dr. Grace Murray Hopper to be a language that could operate on all types of computers.

**1959**: [John McCarthy created LISP](http://jmc.stanford.edu/articles/lisp/lisp.pdf), which is still used today. This programming language was designed for use in artificial intelligence research, and today, it can be used with Python and Ruby.

**1964**: John G. Kemeny and Thomas E. Kurtz developed [BASIC](https://www.uopeople.edu/blog/6-reasons-why-you-should-learn-basic-programming/) for students without a strong background in technology and math, enabling them to still use computers.

**1970**: Niklaus Wirth developed [Pascal](http://p.web.umkc.edu/pynzpf/CS%20441/proj%201/history_of_pascal.htm), naming it after Blaise Pascal. This language is easy to learn and was the main language used by Apple for early software development.

**1972**: Alan Kay, Adele Goldberg, and Dan Ingalls developed Smalltalk, which enabled computer programmers to change code quickly.

**1972**: Dennis Ritchie developed C, generally regarded as the first high-level programming language. This means that it's closer to human language and less like machine code.

**1972**: Donald D. Chamberlin and Raymond F. Boyce developed [SQL](https://www.codecademy.com/articles/sql-commands?r=master) for IBM. This language was used for viewing and changing data stored in databases.

**1978**: Cleve Moler developed MATLAB for writing math programs. This language is used for research and education.

**1983**: Brad Cox and Tom Love created Objective-C as the main language used for writing Apple software.

**1983**: Bjarne Stroustrup created C++, which is an extension of the C programming language. This is one of the most used languages in the world.

<https://www.hp.com/us-en/shop/tech-takes/computer-history-programming-languages>.

**Task 4**

What are the type of languages that we could use in giving instructions?

* Procedural languages
* Functional languages
* Object-oriented Programming Language
* Scripting Programming Language
* Logic programming languages

<https://www.watelectronics.com/types-of-programming-languages-with-differences/>

**Task 5**

What is the new programming language that have the same syntax of python and as fast as C?

**Cython** is a lower-level language with a syntax similar to Python's.

[boo](http://boo.codehaus.org/) is another language with very Python-like syntax, and semantics to about the level of C# .

Google's [**Go**](http://golang.org/) language was designed with Python syntax in mind though its got a hell of a lot of C in its genes too.

**Genie.**

**Elixir** is a much newer coding language, with its latest version.

**Task 6**

List 10 programming languages open source and 10 not open source.

**Open source :**

* Python
* PHP
* Swift
* R
* Ruby
* Scala
* Perl
* Kotlin
* Rust
* TypeScript
* JavaScript

**Not open source :**

* MSVC++
* Java
* VBScript
* C#
* Matlab
* Microfocus COBOL
* C++
* C
* GO

**Task 7**

What are JavaScript advantages?

* Speed
* Simplicity
* Popularity
* Interoperability
* Server load
* Rich interface
* Extended functionality
* Versatility
* Less overhead

[**https://data-flair.training/blogs/advantages-disadvantages-javascript/**](https://data-flair.training/blogs/advantages-disadvantages-javascript/)

**Task 8**

What is fragmentation?

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Fragmentation is the breaking of the body into parts and then the organism develops all the parts of the body. The fragmentation is the type of reproduction in lower organisms. The fragments which are produced can develop into new organisms.