

JAVASCRIPT ENGINE 🔥

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# How Javascript engine run our script file

Day 1



What is a javascript engine ?

A JavaScript engine is a program or an interpreter which executes JavaScript code.

Every major browser has a different javascript engine

Browsers

Google

Firefox

Edge

Safari

Javascript Engine

V8 Engine

Spider Monkey

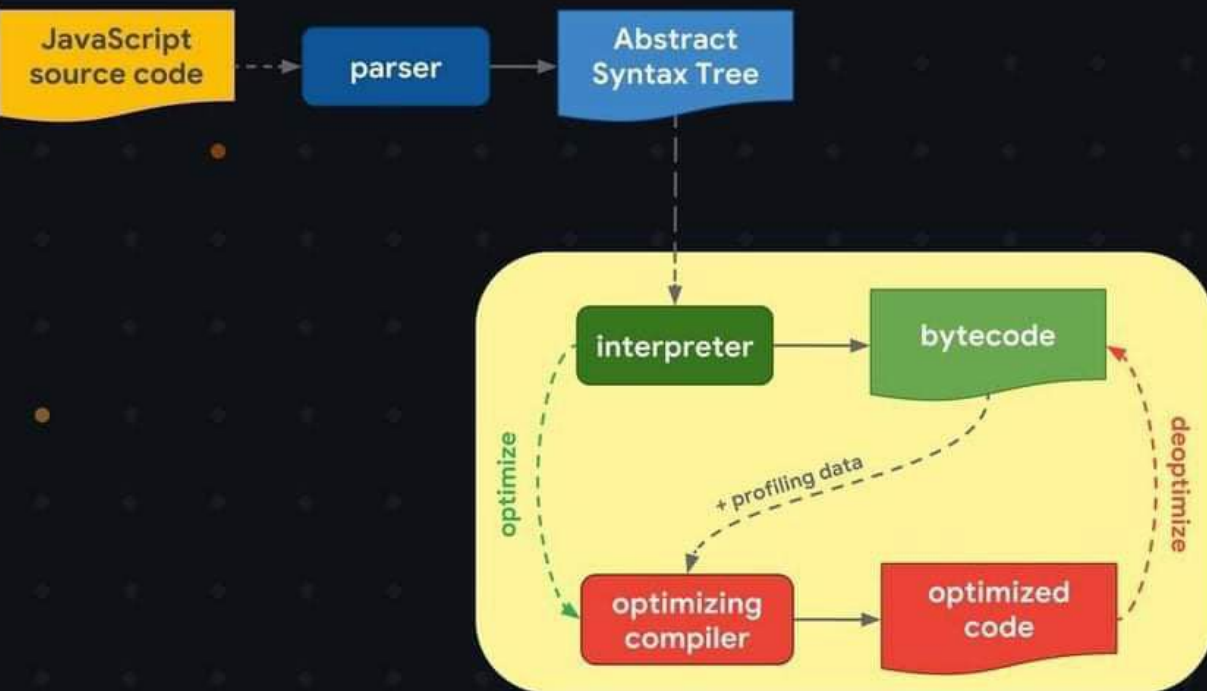
chakra Engine

Javascript Core

## Javascript Engine Pipeline

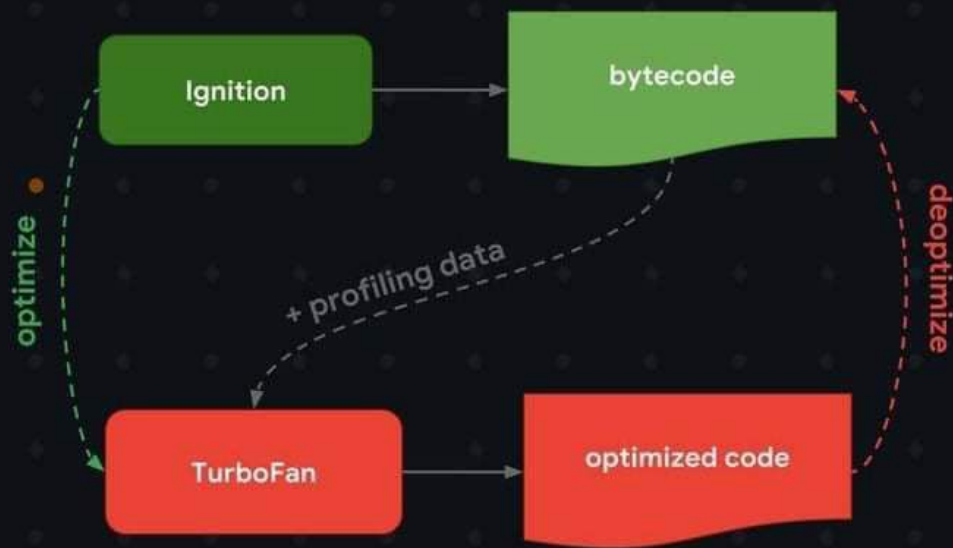
**This flowchart is a javascript engine pipeline but processes are different in all the browser.**

Every javascript engine aim to convert byte code into machine code.



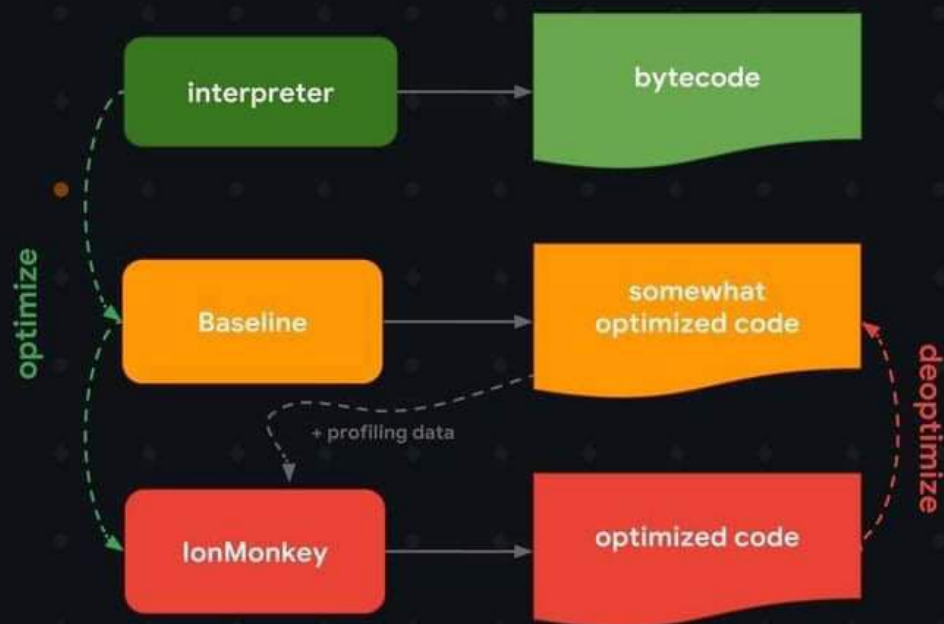
## V8 Engine - Google

In V8 Engine, We are using a single compiler is called as TurboFan.



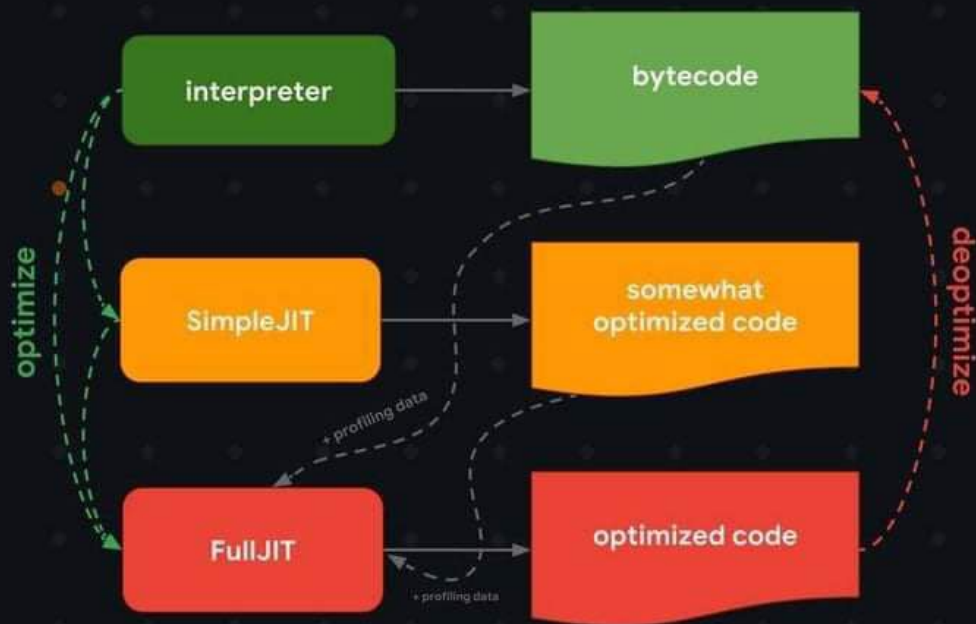
## Spider Monkey - Firefox

In Spider Monkey, We are using a two compiler, tier one is a baseline and tier two is ionmonkey.



## Chakra - Microsoft Edge

In Chakra, We are using a two compiler, tier one is a SimpleJIT and tier two is FullJIT.





## Javascript Core - Safari

In Javascript Core, We are using a three compiler, tier one is a baseline, tier two is Data Flow Graph and tier third is Faster Than Light.

