NODE\_JS-LIBUV-100%c++,V8-30%Js,70%Js-MAIN DEPENDENCIES

NodeJs-gives us interface-wrappers like http,fs,path,crypto modules which have api-these functionialities are implemented inside libuv

node/lib-javascript definitions of modules

node/src-c++ definitions of modules

process.binding(‘crypto’) -how nodeJs binds the c++ crypto module and the javascript crypto module

process.binding envokes the env->setMethod

using v8 we import c++ definitions of javascript concepts

libuv is used for concurrency and processing

Threads-units of instructions- it is within a process,single process can have multiple threads-os scheduler has to take care of threads-if we have more than one core we can process more threads

Node-creates a single thread-inside the thread is an Event Loop-

NodeEventLoop-single Threaded

NodeFramework has some functions -which are not single threaded

Nodes crypto module delegates its functions to the c++ side using the v8 module and in Node c++ side the libuv module has something called the thread pool -by default there are 4 threads in addition to the thread event loop is on- many functions in c++ use this-using this thread pool we dont have to wait while something is happening we can do another task in that time

CORES process the threads and since cores can do multithreading they can process multiple threads at the same time.

Each core will take one second to process one has -so when we have 5 hashes we have 5 divided by 2 =2.5 seconds

For http requests libuv delegates the work to the OS to make the ,it waits for the operating system to give a signal showing that a response has come-there is no blocking os javascript code inside of our application-no blocking of the event loop-as we are not using the thread pool