

$$\boxed{\phantom{00}} + \boxed{\phantom{00}} + \boxed{\phantom{00}} + \boxed{\phantom{00}} + \boxed{\phantom{00}} = \boxed{\phantom{00}}$$

Q. \_\_\_\_

→ The REPL feature of Node is very useful in experimenting with NodeJS codes and to debug Javascript codes.

R: Read → Reads users inputs, parses the input into Javascript data-structure, and stores in memory.

E: Eval → Takes and evaluates data structure

P: Print → Prints the result

L: Loop → Loops the above command until the user presses ctrl S twice

→ Type node in terminal and you will get a REPL.

→ NodeJS Core Module:

- Modules are like Javascript libraries.
- NodeJS has a set of built-in modules which you can use without any further installation.

→ NodeJS has an additional data type called buffer.

→ Buffer is mainly used to store binary data, while reading from a file or receiving packets over the network.

$$\boxed{\phantom{00}} + \boxed{\phantom{00}} + \boxed{\phantom{00}} + \boxed{\phantom{00}} + \boxed{\phantom{00}} = \boxed{\phantom{00}}$$

- We pass them a function as an argument - a callback - that gets called when that task completes.
- The callback has an argument that tells you whether the operation is created successfully.
- Now we need to say what to do when fs.  
write File ~~sync~~ has completed (even if it's nothing),  
~~xxx~~ and start checking for errors.
- In ~~callback~~ Async, callback tells function what to do next when function has executed.
- In Node.js, we call each file as individual modules.
- npm is a package manager for the Javascript Programming language. It is default package manager for the Javascript runtime environments Node.js.
- Module Wrapper Function in Node.js and IIFE in JS are same (kind of).
- When we write some code, Node.js wraps the file (module) in a function which is known as module wrapper function.



## \* NodeJS webServer :->

- > To access web pages of any web application, we need a web server. The web server will handle all the http requests for the web app.
- > ~~NodeJS~~ NodeJS provides capabilities to create your own web server which we will handle HTTP requests asynchronously.
- > The `http.createServer()` method includes request and response parameters which is supplied by NodeJS.
- > The request object can be used to get information about the current HTTP request e.g. url, request header and data.
- > The response object can be used to send response for a current HTTP request.
- > If the response from HTTP server is supposed to be displayed in HTML, you should include an HTTP header with the correct content type.
- > To use above, we need http module.

	+		+		+		+		=	
--	---	--	---	--	---	--	---	--	---	--

\* Handling HTTP request and routing :-  
→ See file `index.js` in `HTTPServer` in `codes` folder.

\* JSON :- →

- JSON stands for JavaScript Object Notation - JSON is a lightweight format for storing and transporting data.
- JSON is often used when data is sent from a server to a web page.

\* Events Module :- →

- NodeJS has built-in module, called ~~"Events"~~ "Events".
- Where you can create -, fire- and listen for - your own events.

Example: Registering for the event only fired once.