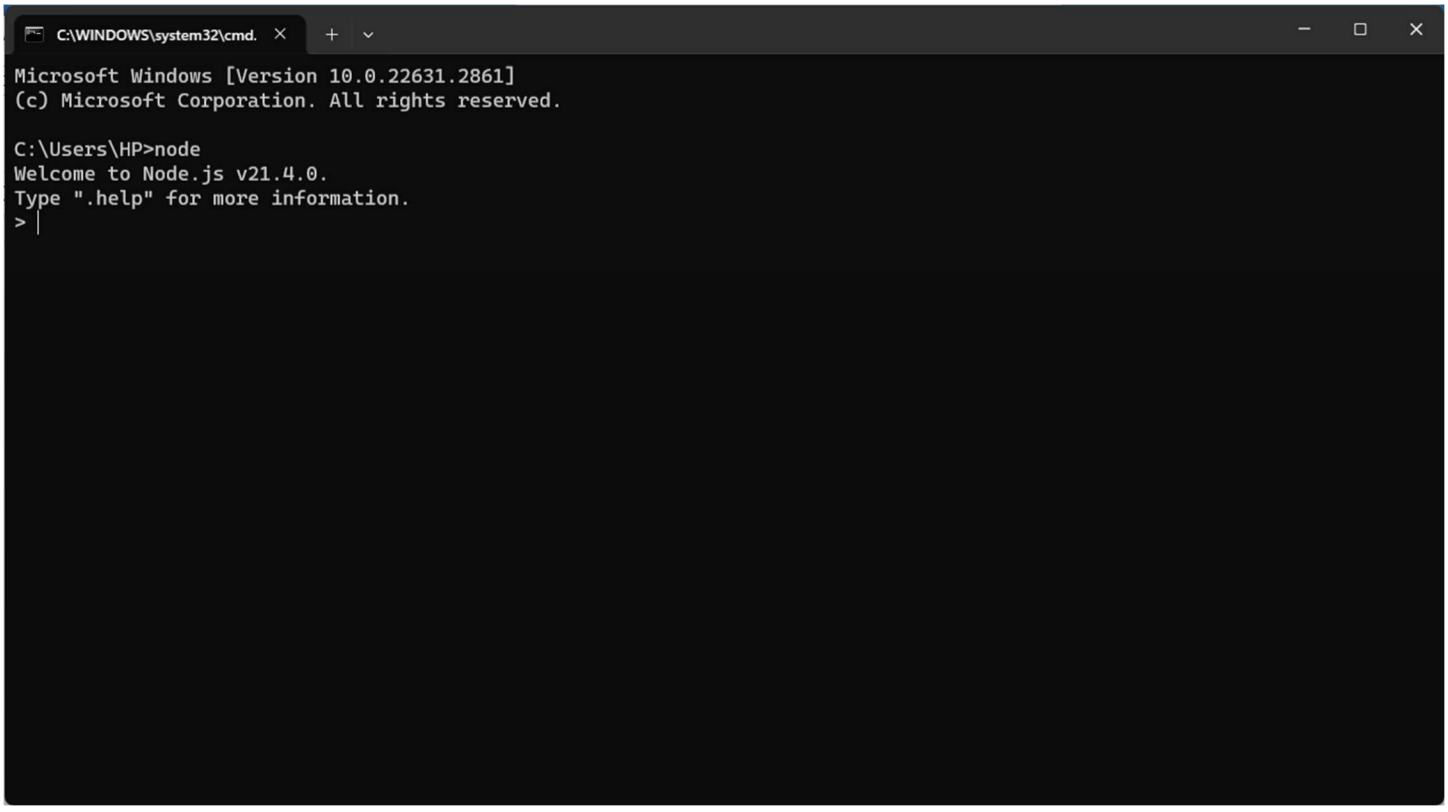
Q. What is REPL? Explain uses of REPL.

A. REPL stand for Read, Eval, Print, Loop. It is a virtual environment where user inputs are read and evaluated and the results are returned to the user. Node.js comes with a REPL environment when it is installed, known as Node Interactive Shell. The REPL environment provides a convenient way to test JavaScript code.

The terms in REPL are as follows:

- Read: It reads the user inputs and parses it into JavaScript code and stored to the memory.
- Eval: It evaluates (processes) the user inputs line by line.
- Print: The results of the evaluation are printed to the console.
- Loop: This Read-Eval-Print process is repeated for every line of code entered by the user.

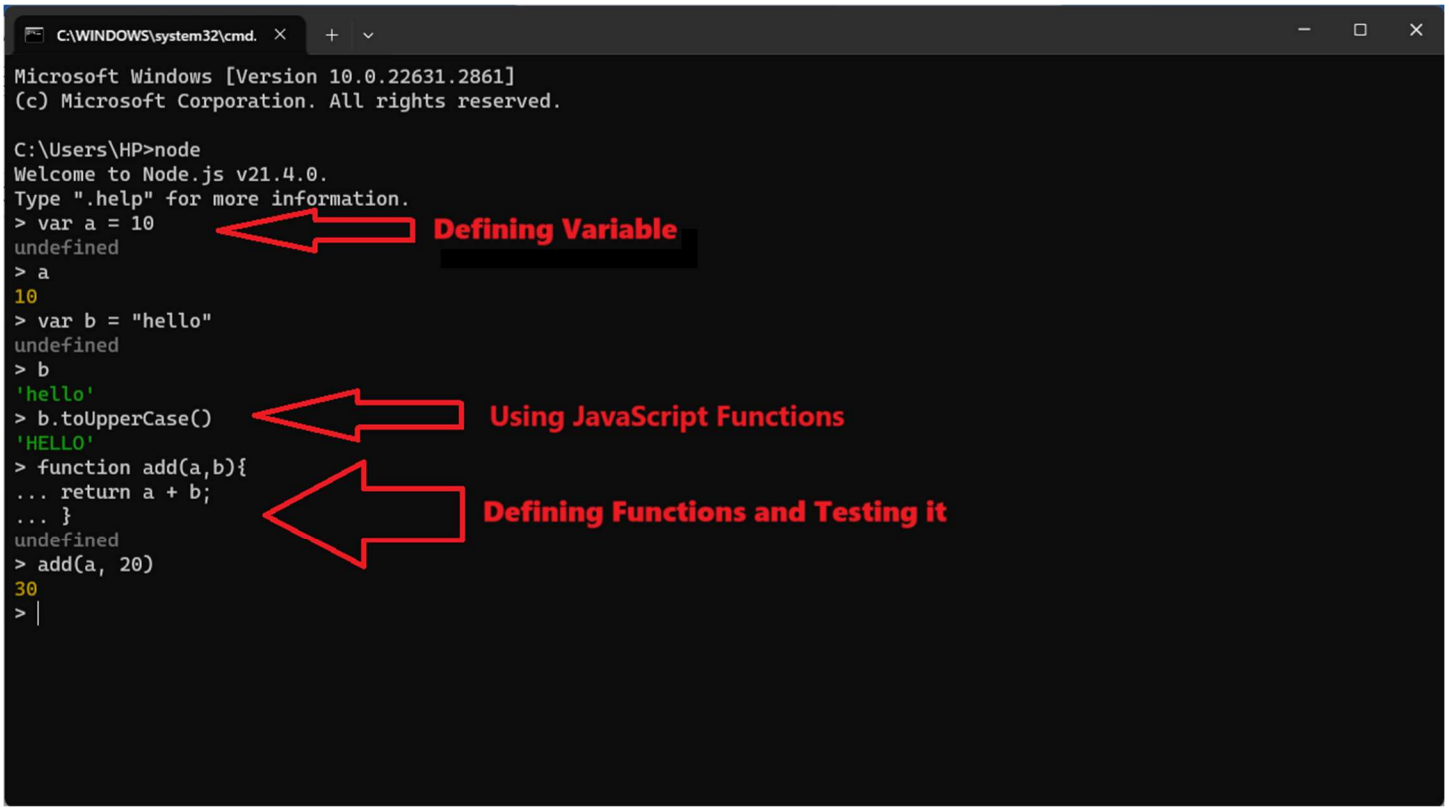
The Node REPL can be started by typing “node” in the command prompt as shown below.



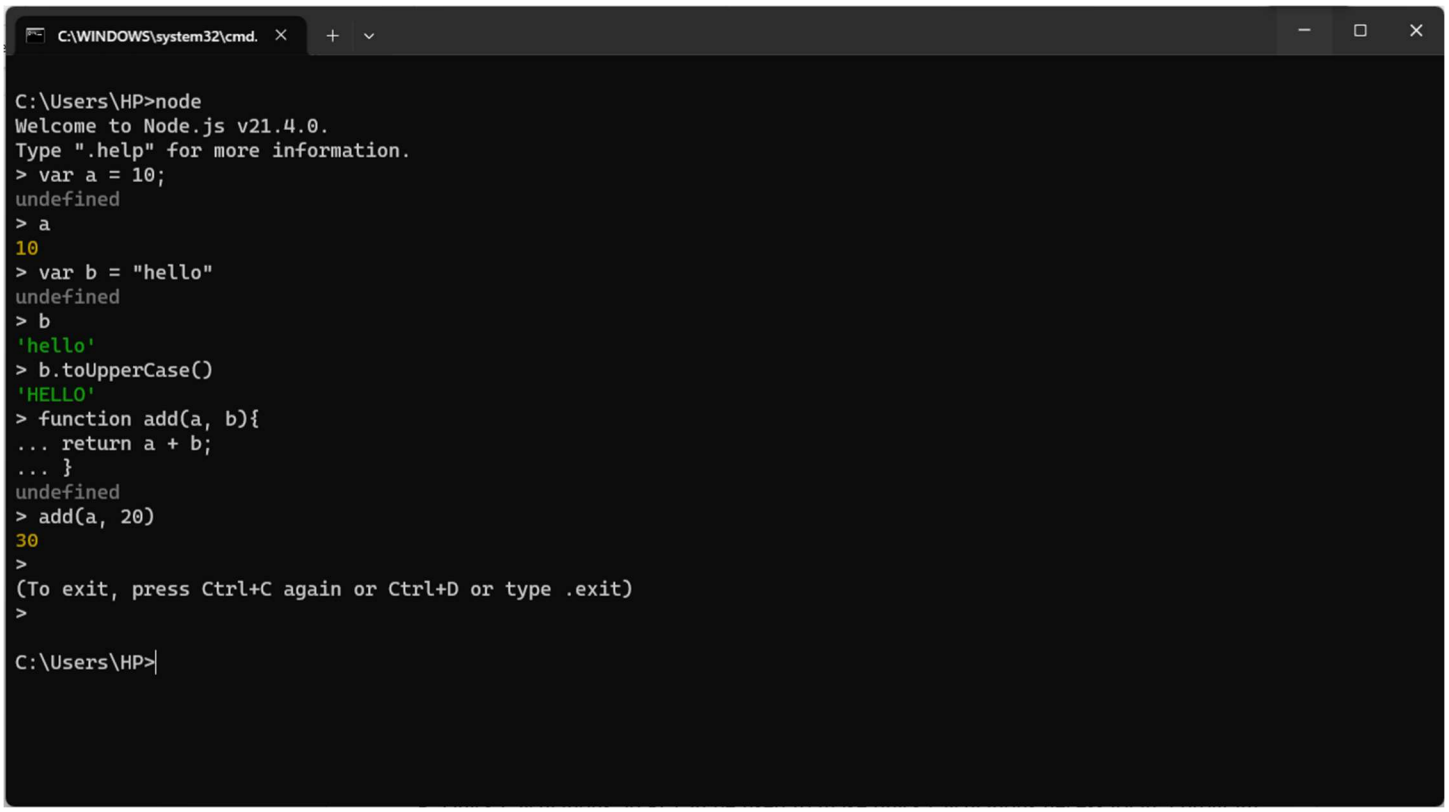
Node REPL can be used for:

- Defining Variables
- Testing JavaScript Expressions
- Defining a function and testing it

All these processes are shown below:

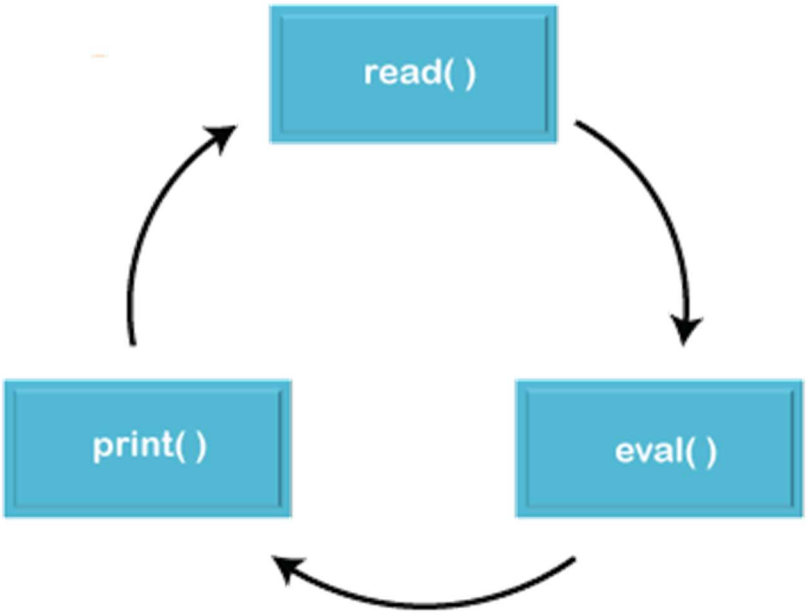


To Exit REPL, you can either click Ctrl+C twice or Ctrl+D or type “.exit”



Uses of REPL:

- Experimenting: Node.js REPL environment can be used to test different ways to solve a problem.
- Debugging: When facing an error in JavaScript code, REPL helps to find the issue faster than running the code on a browser context.
- Learning: New methods and functions can be easily understood by first trying them on REPL environment.
- Quick Calculations: REPL can be used to make quick calculations necessary in a program without having to write the entire program. This helps in better program development.



Read-Eval-Print Loop (REPL)