

Interactive Programming vs. Stored Programs

Interactive Programming

- Open Google Chrome and navigate it to: <http://bit.ly/repl-110>
- Then press the following shortcut keys simultaneously:
 - Windows: Control + Shift + J
 - Mac: Command + Option + J
- This opens a console where you can run JavaScript code interactively!
- Try entering each of these lines of code precisely and pressing enter after each:
 - `print("Hello, world")`
 - `print(1 + 1)`
 - `1 + 1`
- Congrats, you've written your first lines of code!

Interactive "REPL" vs. Stored Programs (1 / 2)

- You just wrote code *interactively* in a REPL console. REPL is short for:
 - **Read** - when you press enter the computer "reads" your command
 - **Evaluate** - it then takes your command and processes it
 - **Print** - the result is then printed back to you in the REPL console
 - **Loop** - you can type in another command and the REPL process repeats
- Programming in a REPL is great for learning and tinkering
- When you refresh your browser or restart the program, though, the work in your REPL is lost

Interactive "REPL" vs. **Stored Programs** (2 / 2)

- Soon you will write "**Stored Programs**" saved in files
- A **stored program** is a **text file of lines of code** like you'd write in a REPL
- However, the code in your **stored program** is **not immediately evaluated**
- When you **save** and **execute** your program, the computer works through each line of code as though you *quickly* typed every line one-by-one into the REPL.
- Stored programs enable you to write larger programs, reuse them, and share them
 - When you restart your program, all of your **saved** code is reevaluated from scratch.