ample, all this script is going to do is log the time when it was run.

```
console.log("Hello", Date.now())
```

Now we need to create a `launchd` configuration plist file.

```
touch ~/Library/LaunchAgents/com.demo.daemon.plist
```
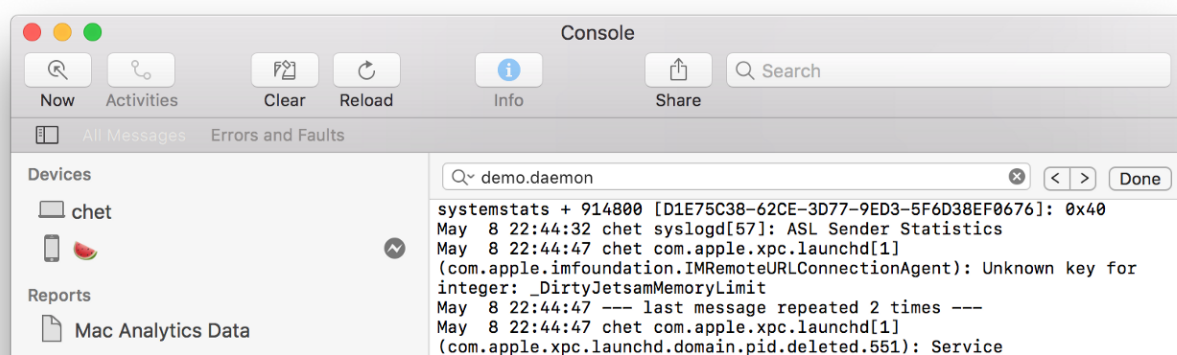
A plist file is just Apple's custom XML format for configurations. Paste this code in there. You may need to change `/Users/chet/demo` to the directory you are using for this example.
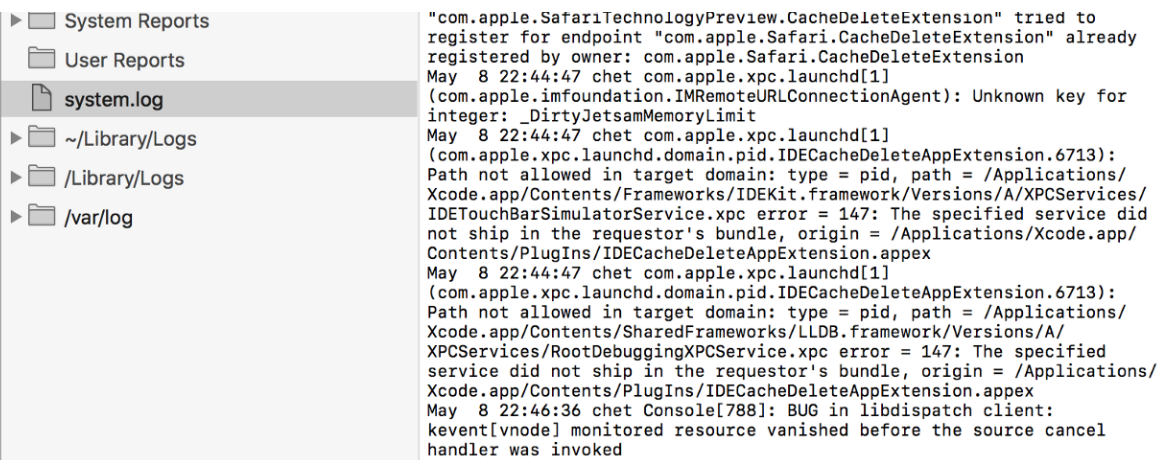
This file specifies a few things:

- The daemon will start whenever the user logs in.

- It will execute every 20 seconds.

- It will output to some log files (very useful for debugging).

- It will set the environment path (useful if your program uses other commands from `usr/local/bin`).

- The command will execute in the `/Users/chet/demo` directory.

- And the command is `/usr/local/bin/node main.js`.

There are a bunch of other options you can read about <u>here</u>. A commonly used option is the `KeepAlive` option which will restart your script whenever it ends or crashes. This is useful if you want your script to always be running.

Now, we just need to get it running. First, open up the `Console.app`. You may have never used it before, but it's a native utility app for debugging this sort of stuff. In the system.log section, you can look for `com.demo.daemon` to see if there are any system errors when you try to start `launchd`.

```
"com.apple.SafariTechnologyPreview.CacheDeleteExtension" tried to
register for endpoint "com.apple.Safari.CacheDeleteExtension" already
registered by owner: com.apple.Safari.CacheDeleteExtension
May  8 22:44:47 chet com.apple.xpc.launchd[1]
(com.apple.imfoundation.IMRemoteURLConnectionAgent): Unknown key for
integer: _DirtyJetsamMemoryLimit
May  8 22:44:47 chet com.apple.xpc.launchd[1]
(com.apple.xpc.launchd.domain.pid.IDECacheDeleteAppExtension.6713):
Path not allowed in target domain: type = pid, path = /Applications/
Xcode.app/Contents/Frameworks/IDEKit.framework/Versions/A/XPCServices/
IDETouchBarSimulatorService.xpc error = 147: The specified service did
not ship in the requestor's bundle, origin = /Applications/Xcode.app/
Contents/PlugIns/IDECacheDeleteAppExtension.appex
May  8 22:44:47 chet com.apple.xpc.launchd[1]
(com.apple.xpc.launchd.domain.pid.IDECacheDeleteAppExtension.6713):
Path not allowed in target domain: type = pid, path = /Applications/
Xcode.app/Contents/SharedFrameworks/LLDB.framework/Versions/A/
XPCServices/RootDebuggingXPCService.xpc error = 147: The specified
service did not ship in the requestor's bundle, origin = /Applications/
Xcode.app/Contents/PlugIns/IDECacheDeleteAppExtension.appex
May  8 22:46:36 chet Console[788]: BUG in libdispatch client:
kevent[vnode] monitored resource vanished before the source cancel
handler was invoked
```

Back in your Terminal, run the following command.

```
launchctl load ~/Library/LaunchAgents/com.demo.daemon.plist
```

If you see some errors in the `Console.app` you can stop the daemon with `unload` and look for errors in the `stderr.log` file.

```
launchctl unload ~/Library/LaunchAgents/com.demo.daemon.plist
cat ~/demo/stderr.log
```

If all went well, you shouldn't see anything in the `Console.app` and you should see logs coming in to the `~/demo/stdout.log` file every 20 seconds.

```
Hello 1525844666922
Hello 1525844687004
Hello 1525844707086
Hello 1525844727169
Hello 1525844747245
Hello 1525844767333
Hello 1525844787419
Hello 1525844807505
Hello 1525844827596
Hello 1525844847681
```