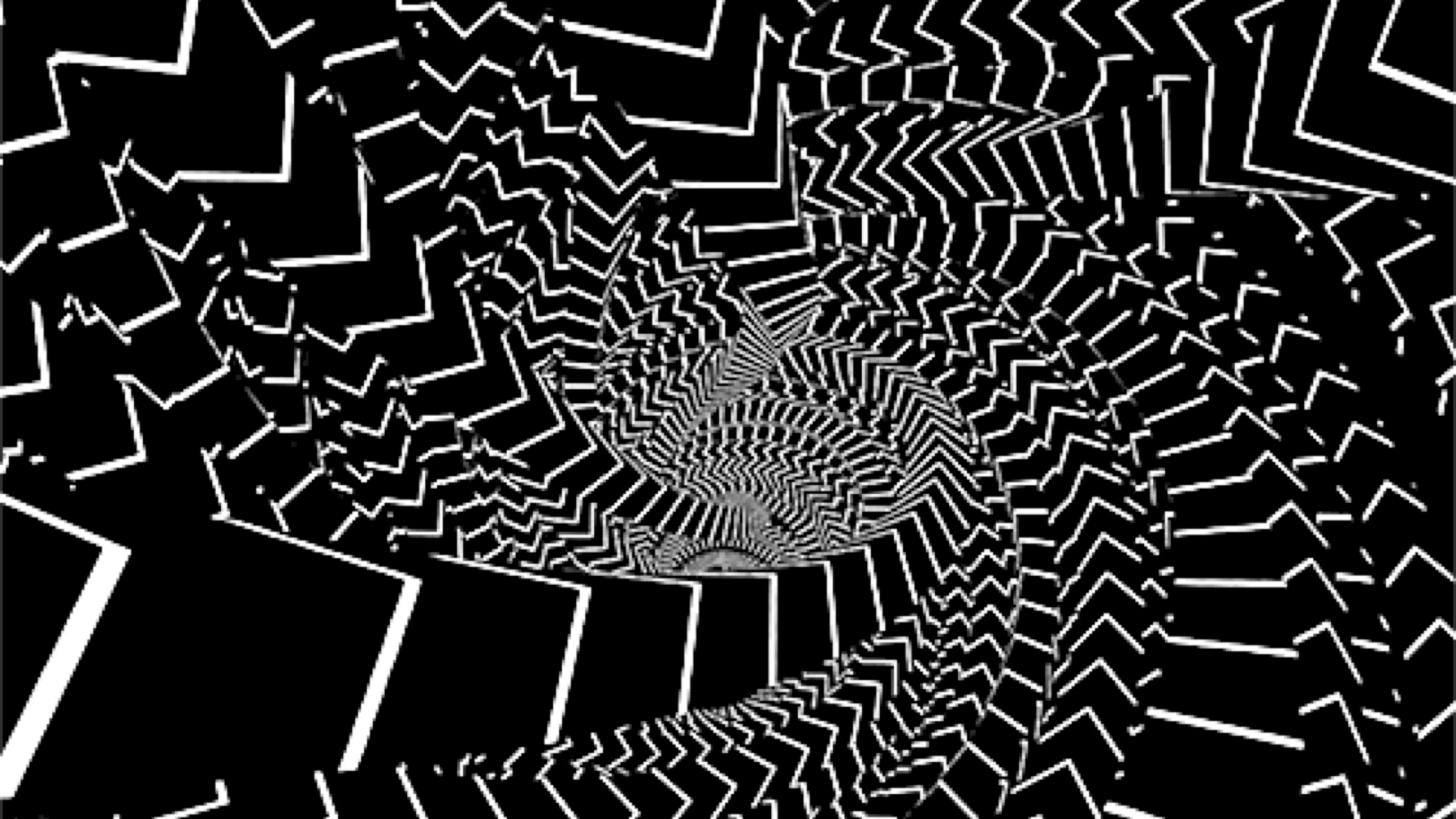


```
let unfamiliar = true;  
  
while(unfamiliar) {  
    unfamiliar = exploreLearnGrow();  
}  
  
console.log('Ready for next challenge!');
```





Application Analysis in *Unfamiliar* *Environments*

Objectives for this Week:

- Set up developer environments for applications written in an unfamiliar language
- Create something new (new app or new features on an existing app)

Your first day/week/month/year on the job might be overwhelming.

You'll encounter:

Legacy Code

```
    int self_size() const override { return 0; }

private:
    FREQWrap(Environment* env,
              Local<Object> res,
              const char* syscall,
              enum encoding encoding)
        Requirap(env, req, Asynchrapi::PROVIDER_FREQUAPI);
        encoding_(encoding);
        syscall_(syscall);
    }

    void set_syscall(const char* syscall) {
        if (this->self_size() > 0) {
            v8::Local<Object> object = this->Get();
            object->Set("syscall", v8::String::NewFromUtf8(
                env->Isolate(), syscall));
        }
    }
}
```

Large Code Bases

```
#include <fcntl.h>
#include <sys/types.h>
#include <sys/stat.h>
#include <stropts.h>
#include <errno.h>
#include <limits.h>
#ifndef defined(VERSION) || defined(MINVER)
#define defined(VERSION) || defined(MINVER)
```

Foreign Languages

```
namespace App\Http;
use Illuminate\Foundation\Http\Kernel as HttpKernel;
class Kernel extends HttpKernel
{
    /**
     * The application's global HTTP middleware stack.
     *
     * These middleware are run during every request to your application.
     *
     * @var array
     */
    protected $middleware = [
        \Illuminate\Foundation\Http\Middleware\CheckForMaintenanceMode::class,
    ];
    /**
     * The application's route middleware groups.
     *
     * @var array
     */
    protected $middlewareGroups = [
        'web' => [
            \App\Http\Middleware\EncryptCookies::class,
            \Illuminate\Cookie\Middleware\AddQueuedCookiesToResponse::class,
            \Illuminate\Session\Middleware\StartSession::class,
            \Illuminate\View\Middleware\ShareErrorsFromSession::class,
            \App\Http\Middleware\VerifyCsrfToken::class,
        ],
        'api' => [
            'throttle:60,1',
        ],
    ];
    /**
     * The application's route middleware.
     *
     * These middleware may be assigned to groups or used individually.
     */
}
```

Foreign Domains

```
... newQuote(row []string) *Quote {
    fields := make(map[string]string)
    for idx, v := range quoteFields {
        fields[v] = row[idx]
    }

    return &Quote{
        Symbol:           fields["s"],
        Name:            fields["n"],
        LastTradeTime:  parseDateAndTime(fields["d1"], fields["t1"]),
        LastTradePrice: toDecimal(fields["l1"]),
        Ask:             toDecimal(fields["a"]),
        Bid:             toDecimal(fields["b"]),
        Volume:         .toInt(fields["v"]),
        ChangeNominal:  toDecimal(fields["c1"]),
        ChangePercent:  toDecimal(fields["p2"]),
        ...,
        PreviousClose:  toDecimal(fields["ld1"]),
        ...,
        Exchange:        fields["x"],
        DayLow:          toDecimal(fields["g"]),
        DayHigh:         toDecimal(fields["h"]),
        FiftyTwoWeekLow: toDecimal(fields["j"]),
        FiftyTwoWeekHigh: toDecimal(fields["k"]),
        Currency:        fields["c4"],
        MarketCap:       fields["j1"],
        FiftyDayMA:      toDecimal(fields["m3"]),
        TwoHundredDayMA: toDecimal(fields["m4"]),
        AvgDailyVolume: ToInt(fields["a2"]),
        FiftyTwoWeekTarget: toDecimal(fields["t8"]),
        ShortRatio:      toDecimal(fields["s7"]),
        BookValue:       toDecimal(fields["b4"]),
        ...,
        fields["j4"],
        ...,
        fields["d5"]),
    }
}
```

Foreign Tools/ Programs

It's not all bad!!

Employers will:

**Have a vested
interest in your
growth**

**Encourage
Exploration**

**Offer Chances for
Mentoring**

Advice this week

Get uncomfortable...

Explore the unknown...

So when it happens on the job...

You're more prepared, less intimidated...

Ready to take on the many challenges that await!

How to learn a new Language

1. Pick a Language
2. Setup Development Environment
3. Familiarize yourself with the language
4. Use online resources for help

Familiarize yourself with the Language

- Official Tutorials
- Official Documentation
- StackOverflow Questions
- CodeSchool etc.
- Learn X in Y Minutes
- You don't have to learn the whole language, just learn enough to be productive

Where to look for help

- Google Searches
- Stack Exchange/Stack Overflow
- Language/Framework Specific Sub-reddit
- Google Groups/Forums
- Other Forums/Q&A Websites

Look for Patterns

- What do you recognize?
- How is the language similar to what you have already learned?

What's Next?

- Setup the development environment(s) that you will need
- Start familiarizing yourself with the language

Questions?