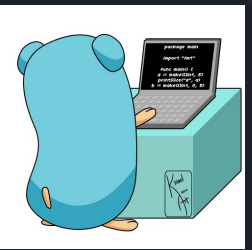
Emerging Languages Workshop



Emerging Languages Ignite Group

go/GlasgowIgniteEmergingLanguages

The plan for today!

Emerging Languages

GoLang

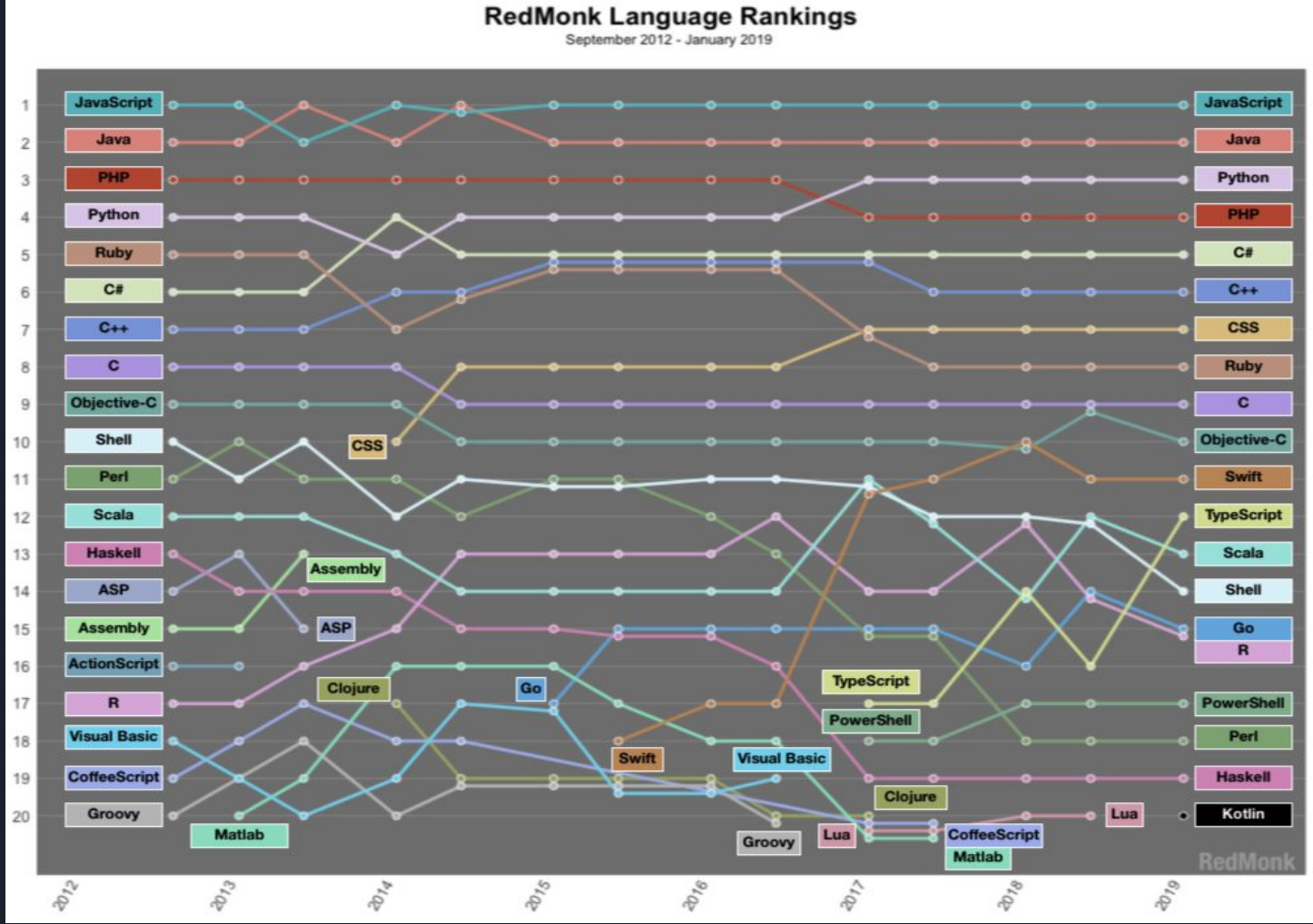
Problem 1

Problem 2

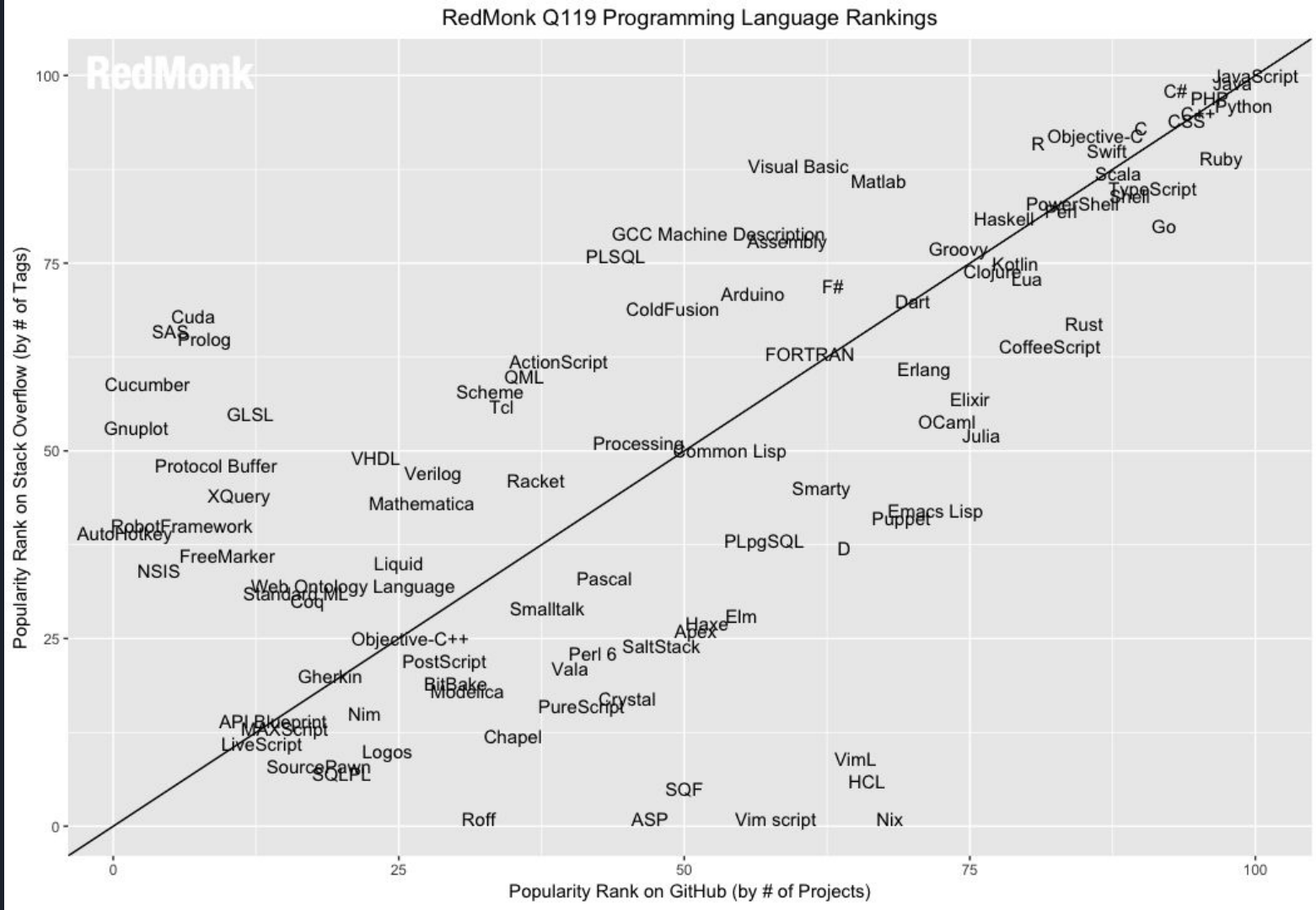
Discussions & Feedback

Emerging Languages

Ballerina



Source: https://redmonk.com/sogrady/2019/03/20/language-rankings-1-19/


RedMonk Q119 Programming Language Rankings
RedMonk
Popularity Rank on Stack Overflow (by # of Tags)
Popularity Rank on GitHub (by # of Projects)
0
25
50
75
100
JavaScript
Java
C#
PHP
Python
C++
CSS
C
R
Objective-C
Swift
Ruby
Scala
TypeScript
Shell
PowerShell
Perl
Haskell
Go
Visual Basic
Matlab
GCC Machine Description
Assembly
PLSQL
Groovy
Kotlin
Clojure
Lua
Arduino
F#
Dart
ColdFusion
Rust
CoffeeScript
Cuda
SAS
Prolog
FORTRAN
ActionScript
QML
Erlang
Cucumber
Scheme
Tcl
Elixir
GLSL
OCaml
Julia
Gnuplot
Processing
Common Lisp
VHDL
Verilog
Racket
Protocol Buffer
Smarty
XQuery
Mathematica
Emacs Lisp
Puppet
RobotFramework
AutoHotkey
PLpgSQL
D
FreeMarker
Liquid
NSIS
Pascal
Web Ontology Language
Standard ML
Coq
Smalltalk
Elm
Haxe
Apex
Objective-C++
SaltStack
Perl 6
PostScript
Vala
Gherkin
BitBake
Modelica
Crystal
PureScript
Nim
API Blueprint
MAXScript
LiveScript
Chapel
Logos
VimL
SourceRawn
SQLPL
HCL
SQF
Roff
ASP
Vim script
Nix

GoLang

Go is an open source programming language that makes it easy to build simple, reliable, and efficient software

Get Going with Go - Setup

Check that the following Environment Variables are set:

- GOROOT - Go runtime environment and compilation tools

```
echo $GOROOT
I:\golang\1.10.3\windows-amd64
```

- GOPATH - Location of source code, supporting installed packages and compiled applications

```
echo $GOPATH
I:\dev\go
```

```
ls $GOPATH
bin pkg src
```

- GOBIN - Normally points to the bin directory in $GOROOT and is added to $PATH to allow applications to be run from any location

```
echo $GOBIN
I:\dev\go\bin
```

- Further details at: go/setupgo (soft copy of Handout 1)

GoLang

```
package main
import "fmt"
func main() {
	fmt.Println("Hello Go World")
}
```

Problem 1 - Sock Merchant HackerRank
(15 minutes - 5 minutes at the end for discussion)

Step 1: Download Problems - https://go/emerginglanguagesworkshop

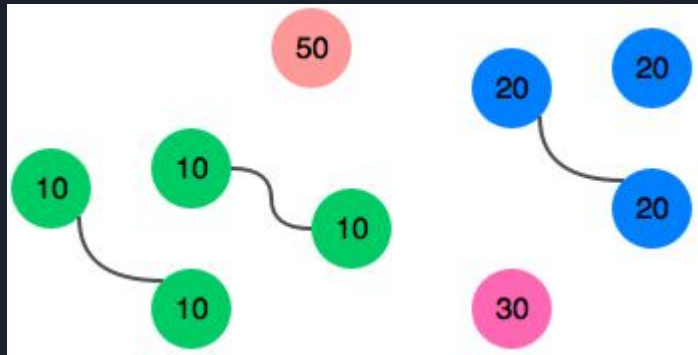
Step 2: Navigate to problem-1/README.md

Hints:

Look at maps, loops, if/else statements - https://gobyexample.com/

Cheat Sheet - https://devhints.io/go

Maps in depth - https://blog.golang.org/go-maps-in-action



Problem 2 - Electronics Shop Problem
(15 minutes - 5 minutes at the end for discussion)

Step 1: Navigate to problem-2/README.md

Implement the getMoneySpent function and test using `go test main_test.go`

Hints:

- Simple Implementation - loops, if statements
- Advanced implementation - custom sorting functions

Discussion

Feedback & What's Next?