Sprite

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Introduction

* Why is Sprite the best language ever?
Motivation

- Video game development is hard
- JavaScript is hard
- Deployment is hard
Address those three problems, therefore is the best language ever.
Quick Tutorial

<< simple program
print("Hello world")

* Comments & print statements
obj person {
    firstName = "Jane"
    lastName = "Doe"
    age = 23
    free_time = "lots"
    id = 0
}

jane = new person
func marriage(wife, husband){
    wife.lastName = husband.lastName
    husband.free_time = 0
}

john = new person
john.firstName = "John"
john.lastName = "Smith"
marrige(jane, john)

-------------------------------------------------------------
i = 0
func MoveBall() callevery(10) {
    i = i + 1
    sprite("Ball.jpg", 1, i, i)
}

}
Sprite Compiler

- ANTLR used to develop the lexer and the parser for our language
- Java was used to implement the abstract syntax tree as well as the static semantic analysis
Architectural Design
AST & SSA

* AST
* SSA
* Symbol Table
Types, Namespaces, and Bindings

- One namespace
- Static binding
- Weak typing
- Dynamic typing
Testing

* Script that iterated through tests and then printed out percent that performed as expected (along with error messages if they didn’t)
Conclusion

* Sprite is valuable to both new/seasoned programmers -- it makes image manipulation in JavaScript so much easier
Lessons Learned

* Mostly technical
* Good team dynamics, vision
* Schedule