

# Next

Ernesto Arreguin (eja2124)

Danny Park (dsp2120)

Morgan Ulinski (mu2189)

Xiaowei Zhang (xz2242)

# Introduction to Next

- A programming language used to create text-based games
  - RPGS
  - “Choose your own adventure” stories
- Provides the tools needed to implement a game, while still allowing programmers freedom to decide:
  - Locations, characters, items
  - Game plot, actions that take place
  - End conditions

# Language Elements

- Data types
  - int, string
  - item, character, location
- Next-specific constructs
  - New operators and statements
    - exists, grab, drop, hide, show, kill
    - choose
      - take input from the player and uses that to decide what branch to execute
    - prob
      - inserts randomness into a game to make it more interesting
    - start
      - contains code associated with a given location
      - specify game end conditions

# Next Tutorial

- Next is a language where everything written is a declaration
- Possible Next declarations include the two primitive Next data types:
  - int
  - string
- Next also includes three complex data types:
  - item,
  - character
  - location
- There is one more type of declaration, the start declaration, which declares the start and specifies what happens inside a location. Once a location is declared its start declaration must also be made for that location
- The following example will help clarify the basics of Next:

# Sample Program

```
int fin;  
item object {(int size=3)}  
character person {(string say ="Hello World!"),(object)}  
location here{( ),(object),(person)}
```

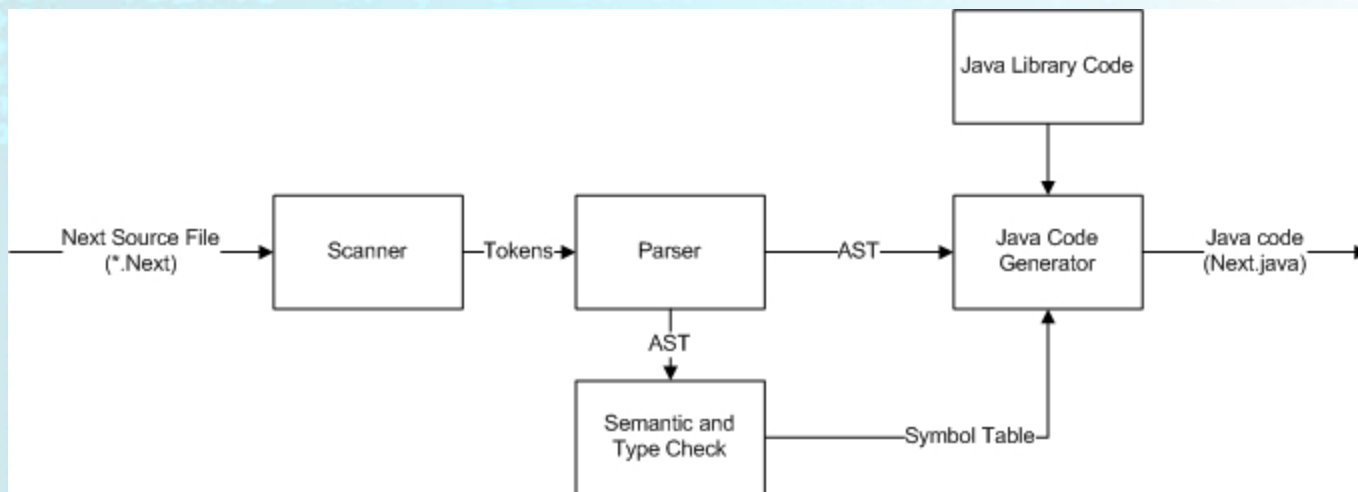
# Sample Program

```
int fin;  
item object {(int size=3)}  
character person {(string say ="Hello World!"),(object)}  
location here{( ),(object),(person)}  
  
start here end (fin == 1){  
    if (exists here.object) then  
        output person.say;  
    else  
        output object.size;  
    fin = 1;  
}
```

# Design and Implementation

Translate Next to JAVA

Next code -> scanner -> parser -> first pass (checking) ->  
second pass (translating)



# Summary

- The Next language lets developers build text-based RPGs
- By providing abstractions of commonly used functionality in RPGs we have tried to simplify the RPG building process



# Lessons Learned

- Team dynamic can make or break the project
  - Since there are so many moving parts, the team has to be able to work well together
- Source control choice is key
  - Kept us sane, sometimes
- Regular Communication
  - Allowed the project to run smoothly throughout the semester
- Problem? Add another level of indirection

# Thank You, Happy Holidays

