CS 153
simpL Language

No Name4

Motivation

- Simple as possible

- Easy to use

- Python like syntax for static language

Syntax – *Text* and *Number*

Text b = 'example'   # String, char ➜ Text
Number a = 10   # int, double, float ➜ Number
Number b
Number c

a = 10 - 2 ^ 2   # a is now 6
b = a / 3   # b is now 2
c = b * 4   # c is now 8

Number mySum = a + b + c   # mySum is now 16
mySum = mySum + mySum + mySum   # mySum is now 48

Syntax - Boolean operators

```
True                    # Must start with capital T
False                   # Must start with capital F
not True                # Uses 'not' for negation
True and True           # Uses 'and' for logical AND
False or True           # Uses 'or' for logial OR

1 == 1
1 != 1
1 <= 1
1 >= 1
1 < 1
1 > 1
1 + 1
1 - 1
1 * 1
1 / 1
1 ^ 1
```

Syntax – *if* statement

```
if a == 10                              # No paretasees for condition
{                                       # Need to put in newline
        println('a is 10')              # Support println like Java
        return True
}
elif b == 'example'                     #  'else if' statement is 'elif' like Python
{
        print('b is example')           # Support print like Java
        return True
}
else
{
        print('a and b is wrong')
}
```

Syntax - Loop

```
while a < 10
{
        println('executing while. Incrementing a to 10. a: ', a)
        a = a + 1
}

# No for loop
```

Syntax - Definition

```
def sum_of_squares (Number a, Number b)                    # Use def for definition
{
        return a ^ 2 + b ^ 2
}

def distance (Number x1, Number y1, Number x2, Number y2)
{
        return (y2 - y1) / (x2 - x1)
}
```