

CSCI 334:
Principles of Programming Languages

Lecture 16: Eval with context

Instructor: Dan Barowy
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Announcements

Project proposals back today with notes

Feedback on other homework forthcoming

Project Timeline

Project checkin: mostly complete by Nov 29

Project done: complete by Dec 6

Project presentation (5-10 minutes): Dec 11

Topics

Discuss: Guy Steele talk "Growing a Language"

Growing a language (in class)

Evaluation within a context

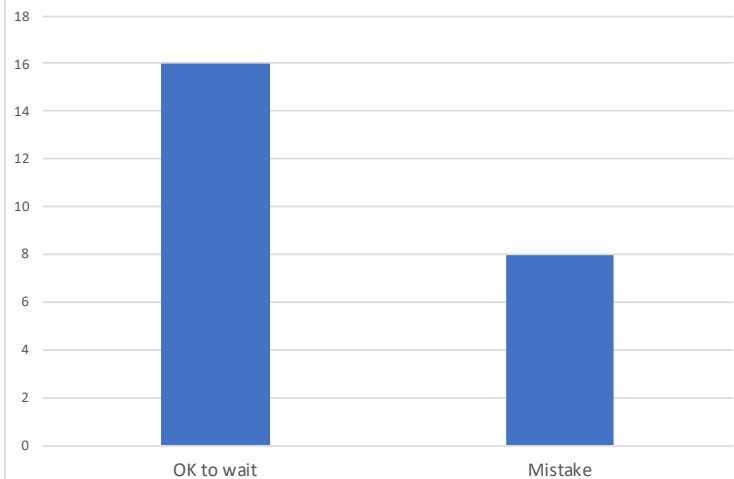
Discussion

Blub Paradox

"As long as our hypothetical Blub programmer is looking down the power continuum, he knows he's looking down. Languages less powerful than Blub are obviously less powerful, because they're missing some feature he's used to. But when our hypothetical Blub programmer looks in the other direction, up the power continuum, he doesn't realize he's looking up. What he sees are merely weird languages. He probably considers them about equivalent in power to Blub, but with all this other hairy stuff thrown in as well. Blub is good enough for him, because he thinks in Blub."

—Paul Graham, *Beating the Averages*

Was it a mistake for Java to wait so long to add generics?



Follow-up on last week's question:

"Do you love, hate, or feel ambivalent about programming? What about computer science?"

"Sometimes I feel like computer science is a discipline without a soul, making the world more efficient for the purpose of doing so. This is not necessarily a bad thing. But my favorite part about computer science is not any deeper meaning I prescribe to the discipline (of which I have not been convinced exists), but the act of programming which I find enjoyable."

— Noah Cowit

"Mathematics, rightly viewed, possesses not only truth, but supreme beauty—a beauty cold and austere, like that of sculpture, without appeal to any part of our weaker nature, without the gorgeous trappings of painting or music, yet sublimely pure, and capable of a stern perfection such as only the greatest art can show. The true spirit of delight, the exaltation, the sense of being more than Man, which is the touchstone of the highest excellence, is to be found in mathematics as surely as in poetry."

— Bertrand Russell

Growing a Language

```
print("Hello ");  
print("everyone");
```

```
print("Hello ");  
print("every ");  
print(1);
```

```
print("Hello ");  
print("every ");  
print(0 + 1);
```

```
x := 1;  
print("Hello ");  
print("every ");  
print(0 + x);
```

"Evaluation within a context"