1 Found Papers of Interest

1. A comparison of 7 programming languages: [8]
2. A comparison of 4 OO languages: [5]
3. A conceptual perspective on comparing OO languages: [6]
4. Ada VS Java as a first language for teaching: [2]
5. C VS Pascal: [3]
6. Comparing OO Languages (Dr. Dobbs): [4]
7. Comparing the OO features of Ada VS Java: [1]

2 Comparing object-oriented languages

Floyd has various programmers implement a linked-list structure in various languages.[4] He compares:

1. Garbage Collection
2. Single VS Multiple Inheritance
3. Binding Time
4. Compiled VS Interpreted
5. Exception Handling Features
6. Lines of Code for Each Implementation

He does not do in depth analysis.

3 A comparison of the object-oriented features of Ada 95 and Java

Brosgol does a factual language feature comparison of Ada95 and Java[1]. He compares:

1. Class implementation
2. Implicit VS Explicit pointers
3. Memory Management and Garbage Collection
4. How Methods are Called
5. Inheritance Abilities

6. Polymorphism Abilities
7. Dynamic VS Static Binding
8. Encapsulation Facilities
9. Generics Support
10. Namespace Structures

4 A comparative survey of concurrent programming languages

Nami does a factual language feature comparison of Eiffel, C++, Java, and Smalltalk[7]. He compares:

1. Static VS Dynamic Typing
2. Compiled VS Interpreted
3. Quality Assurance Facilities
4. Automatic Documentation
5. Multiple VS Single Inheritance
6. A brief discussion of building infrastructures

5 A comparison of Ada and C++

Tang compares Ada and C++[9]. He compares:

1. Encapsulation and Abstract Data Types - Ada packages VS C++ classes, comparison of overloading capabilities
2. Generics, with a mention of the typing discipline of the languages
3. Memory management and Garbage Collection, memory leaks
4. Inheritance - Ada has a primitive form, C++ has full
5. Polymorphism and Dynamic Binding - Ada has a primitive forms, C++ has full
6. Exception Handling - similar for both
7. Concurrency - Ada's are simpler and built in, C++ relies on OS support
8. Efficiency - brief discussion of design decisions relating to performance
9. Reliability - Ada is more reliable due to safety features, stronger typing, C++ has C's problems

6 Still Looking For

1. M. Shaw, G. T. Almes, J. M. Newcomer, B. K. Reid and W. Wulf, "A Comparison of Programming Languages for Software Engineering", Software-Practice and Experience, 11, pp. 1-52 (1981).

   `http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA053562`

2. H. J. Boom and E. D. Jong, "A Critical Comparison of Several Programming Language Implementations", Software-Practice and Experience, 10, pp. 435-473 (1980).

References

[1] Benjamin M. Brosgol. A comparison of the object-oriented features of ada 95 and java. In *TRI-Ada '97: Proceedings of the conference on TRI-Ada '97*, pages 213–229, New York, NY, USA, 1997. ACM.

[2] Benjamin M. Brosgol. A comparison of ada and java as a foundation teaching language. *ACM SIGAda Ada Letters*, 18:18–5, 1998.

[3] Alan R. Feuer and Narain H. Gehani. Comparison of the programming languages c and pascal. *ACM Comput. Surv.*, 14(1):73–92, 1982.

[4] Michael Floyd. Comparing object-oriented languages. *Dr. Dobb's J.*, 18(11):104–ff., 1993.

[5] Robert Henderson and B. Zorn. A comparison of object-oriented programming in four modern languages, 1994.

[6] Bent Bruun Kristensen and Kasper sterbye. A conceptual perspective on the comparison of object-oriented programming languages. *SIGPLAN Notices*, 31:42–54, 1996.

[7] Mohammad Reza Nami. A comparison of object-oriented languages in software engineering. *SIGSOFT Softw. Eng. Notes*, 33(4):1–5, 2008.

[8] Lutz Prechelt. An empirical comparison of seven programming languages. *Computer*, 33(10):23–29, 2000.

[9] L. S. Tang. A comparison of ada and c++. In *TRI-Ada '92: Proceedings of the conference on TRI-Ada '92*, pages 338–349, New York, NY, USA, 1992. ACM.