Are dynamic types slower in Dart?

Asked 3 years, 3 months ago Active 2 years, 7 months ago Viewed 722 times



I have been wondering if dynamic types are slower in Dart.

dart

6 Example given:



final dynamic example = "Example"



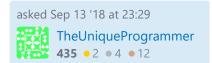
versus

```
final String example = "Example"
```

variables dynamic types

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edited May 17 '19 at 13:12



The first example is not a dynamic call – Jonah Williams Sep 14 '18 at 2:29

2 Answers





Yes, using dynamic typed variables in Dart is often slower than using variables typed with an actual type.

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However, your example is not using dynamic as type, it is using type inference to infer the string type. That might cost a *little* extra at compile-time, but at run-time, your two code examples are completely identical. Both variables are typed as String.



A dynamic method invocation may be slower because the run-time system must add extra checks to ensure that the variable can do the things you are trying to do with it. If you have int x = 2; print(x + 3); the run-time system knows that int has a + operator, and even knows what it is. If you write dynamic x = 2; print(x + 3); the run-time system must first check whether x has a + operator before it can call it, and find that operator's definition on the object before calling it. It might not always be slower, some cases optimize better than others, but it can never be faster.

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(stringOrList as List).length. It may be slower depending on the compiler and the target platform.

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edited Dec 3 '18 at 9:50

answered Sep 14 '18 at 6:01





Well, in your first example (heh), example is inferred to be a type string, not dynamic, so how could it be slower? The style guide even recommends not adding redundant types to those variables that can be inferred correctly.



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Randal Schwartz 32.7k • 4 • 37 • 60

answered Sep 14 '18 at 1:42

What about leaving about return types from method signatures such as Future get(resource) vs. Future<Response> get(resource) ? - mLstudent33 Nov 22 '21 at 7:06

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