1. Difference between statically typed and dynamically typed languages?

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| **Sno** | **Statically typed languages** | **Dynamically typed languages** |
| 1 | Statically typed languages perform type checking at compile-time. | Dynamically typed languages perform type checking at run-time. |
| 2 | Statically typed languages require you to declare the data types of your variables before you use them.  Ex;  Int a = 10:  print(a); | Dynamically typed languages do not.  Ex;  a = 10;  print(a); |
| 3 | Examples of statically-typed languages are Java, C, C++, C#, Swift, Scala, Kotlin, Fortran, Pascal, Rust, Go, COBOL, etc. | Examples of dynamically-typed languages are Python, Javascript, Ruby, Perl, PHP, R, Dart, Lua, Objective-C, etc. |
| 4 | Errors are detected earlier. | Type errors are delected later during execution. |
| 5 | Produces more optimized code. | Produces less optimized code, runtime errors are possible. |