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| parameter | Compiler | interpreter |
| Program Scanning | Compilers Scan the entire program in one go. | The program is translated one line at a time. |
| Error Detection | As and when Scanning is performed all the errors are shown in the end together,not line by line. | One line of code is scanned and errors encountered are shown. |
| Object Code | Compilers Convert the source code to object code. | Interpreters do not convert the source code into object code. |
| Execution Time | The execution time of complier is less,hence it is preferred. | Interpreter is slow and hence take more time to execute the object code. |
| Need of Source | Compilers doesn’t require the source code for execution later. | It requires the source code for execution later. |
| Programming languages | Programming languages that use compliers include C,C++,C#. | Programming languages that used interpreter include python,ruby,perl etc. |
| Types of Errors Detected | Compiler can check syntactic and semantic errors in the program simultaneously. | Interpreter checks the syntactic errors only. |
| Size | Compiler are larger in size. | Interpreter are smaller in size. |
| Flexibility | Compilers are not flexible | Interpreters are relatively flexible. |
| Efficiency | Compilers are more efficient | Interpreter are less efficient. |