

Chomskian hierarchy of languages

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Language an Introduction

- **Noam Chomsky** gave a mathematical model of grammar in 1956 which is effective for writing computer languages.

Chomsky Classification of Language

According to Noam Chomsky, there are four types of language

1. Type 0
2. Type 1
3. Type 2 and
4. Type 3.

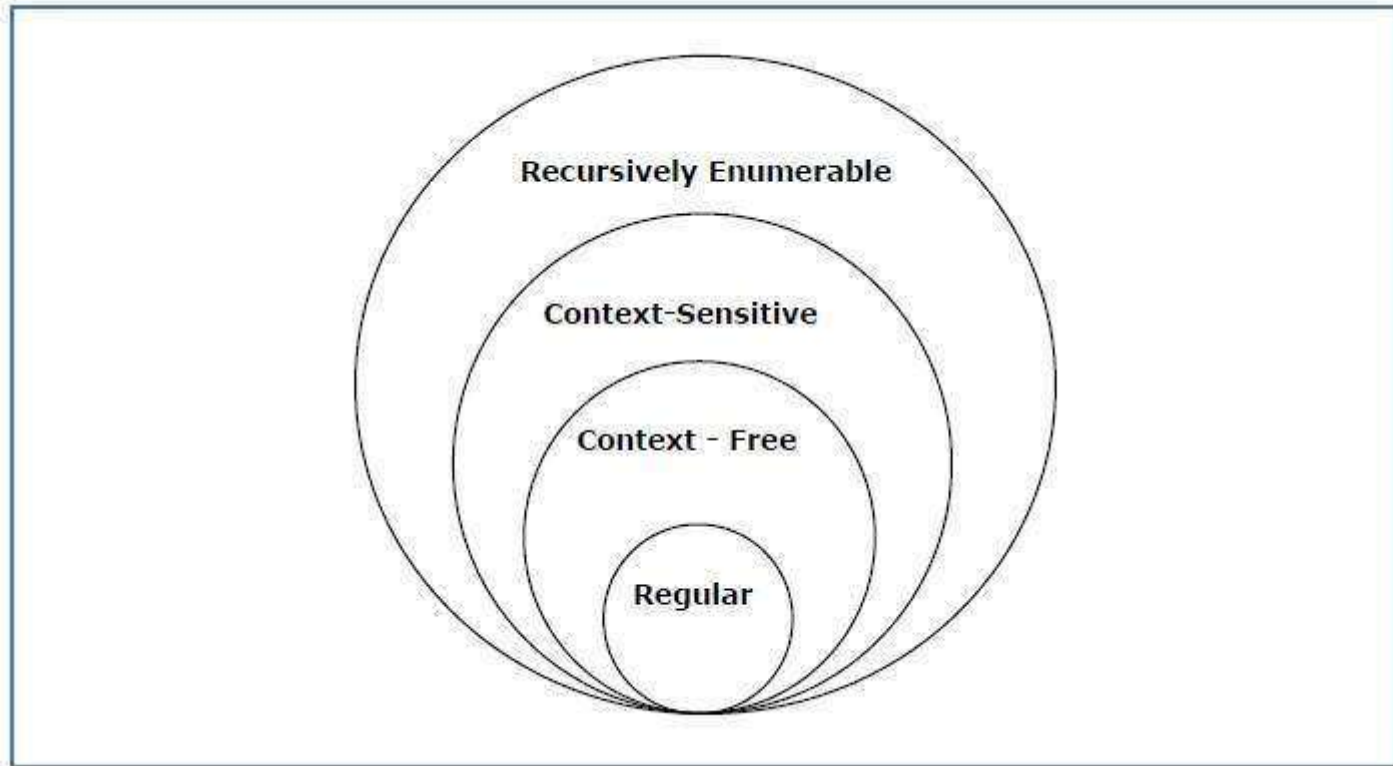
Chomsky Classification of Language

The following table shows how they differ from each other

Grammar Type	Grammar Accepted	Language Accepted	Automaton
Type 0	Unrestricted grammar	Recursively enumerable language	Turing Machine
Type 1	Context-sensitive grammar	Context-sensitive language	Linear - Bounded automaton
Type 2	Context-free grammar	Context-free language	Pushdown automaton
Type 3	Regular grammar	Regular language	Finite state automaton

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Illustration





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