

**COP4020.02**

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**Notes COP4020: Programming Languages**

# 1 Nonregular Languages

A language that cannot be defined by a regular expression is called a **nonregular language**.

Example:

- $L = \{a^n b^n \mid n = 0, 1, 2, 3, 4, \dots\}$
- $L \in \text{language}(a^* b^*)$