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// Program: power8.cpp
// Raise a number to the eighth power.

#include <iostream>

int main()
{
    // input
    std::cout << "Compute a^8 for a =? ";
    int a;
    std::cin >> a;

    // computation
    int b = a * a; // b = a^2
    b = b * b;     // b = a^4

    // output b * b, i.e., a^8
    std::cout << a << "^8 = " << b * b << ".\n";
    return 0;
}
```

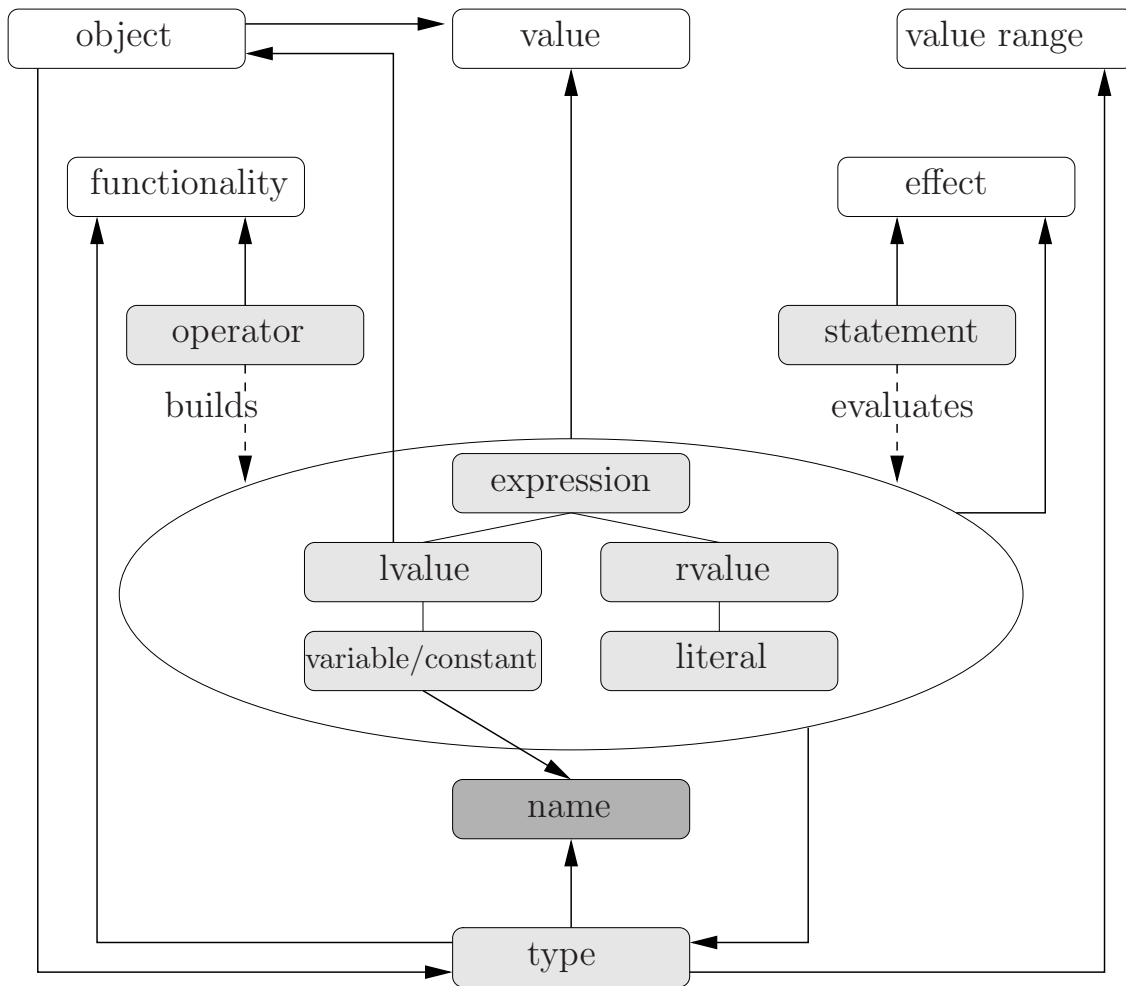


Figure 1: Syntactical and semantical terms appearing in our first program `power8.cpp`. Purely semantical terms appear in white, purely syntactical terms in dark gray. Mixed terms are drawn in light gray. Solid arrows $A \rightarrow B$ are to be read as “ A has B ”, while solid lines in the expression part mean that the upper term is more general than the lower one.