

2.

To efficiently optimize the code compiler collect all the information about the program and distribute this information to each block of flow graph.

Ex $x = a + b;$
 $x = b * 3$

In this code, the first assignment of x is useless.

Some optimization needs more global information

$a = 1$

$b = 2$

$c = 3$

if (...) $x = a + 5;$

else $x = b + 4$

$c = x + 1$