Table 9.1
Ball and Larus's static branch prediction rules

Heuristic Name	Description
Loop branch	If the branch target is back to the head of a loop, predict taken.
Pointer	If a branch compares a pointer with NULL, or if two pointers are compared, predict in the direction that corresponds to the pointer being not NULL, or the two pointers not being equal.
Opcode	If a branch is testing that an integer is less than zero, less than or equal to zero, or equal to a constant, predict in the direction that corresponds to the test evaluating to false.
Guard	If the operand of the branch instruction is a register that gets used before being redefined in the successor block, predict that the branch goes to the successor block.
Loop exit	If a branch occurs inside a loop, and neither of the targets is the loop head, then predict that the branch does not go to the successor that is the loop exit.
Loop header	Predict that the successor block of a branch that is a loop header or a loop preheader is taken.
Call	If a successor block contains a subroutine call, predict that the branch goes to that successor block.
Store	If a successor block contains a store instruction, predict that the branch does not go to that successor block.
Return	If a successor block contains a return from subroutine instruction, predict that the branch does not go to that successor block.

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