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Exp11

Question: The aim is to generate Three-Address Code (TAC) for a given arithmetic expression and flow of control (e.g., if-else, loops). TAC is an intermediate representation used in compilers to simplify the task of code generation. It consists of simple instructions that make it easier to translate into machine-level code. For example, for an arithmetic expression a = b + c * d, the TAC would break it down into simpler steps, using temporary variables to hold intermediate results.
Output:

```
hhvs-MacBook-Air:Exp11 hhv$ ./a.out
TAC for arithmetic expression:
t1 = b + c
a = t1

TAC for if-else statement:
if a < b goto L1
goto L2
L1: x = 1
goto L3
L2: x = 2
L3:

TAC for while loop:
L1: if a >= b goto L2
x = x + 1
goto L1
L2:
```