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/*
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 * Classnote: Sample #2 for 2301171 tutorial (Distant Learning Program)
 * Description: This sample program illustrates the use of 'switch'
 *              statement in multi-way branching.
 * Assumption: No input validation is performed.
 */

#include <stdio.h>

int
main(void)
{
    char  op, junk;
    int   first, second;
    int   result, flag;

    printf("\n");
    printf("This is a simple calculator which accepts two integers\n");
    printf("and one operator in postfix notation. The program will\n");
    printf("then perform the operation accordingly and print the result\n");
    printf("on screen. The program will terminate when both integers are zeros\n");
    printf("Valid operators are (+, -, *, /, %%), for example:\n");
    printf("ex1: Enter two integers ->8 5\n");
    printf("      Enter the operator ->+\n");
    printf("ex2: Enter two integers ->8 4\n");
    printf("      Enter the operator ->%%\n");
    printf("\nEnter two integers ->");
    scanf("%d%d", &first, &second);
    while (first != 0 || second != 0)
    {
        printf("Enter the operator ->");
        scanf("%c%c", &junk, &op);          /* 'junk' for newline */
        flag = 1;
        switch (op)
        {
            case '+':
                result = first + second;
                break;
            case '-':
                result = first - second;
                break;
            case '*':
                result = first * second;
                break;
            case '/':
                result = first / second;
                break;
            case '%':
                result = first % second;
                break;
            default:
                flag = 0;
                break;
        }
        if (flag == 1)
            printf("The result is: %d\n", result);
        else
            printf("Illegal operator. No computation is performed\n");
        printf("\nEnter two integers ->");
        scanf("%d%d", &first, &second);
    }
    return 0;
}

```