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#include <stdio.h>
#define TAX 0.0825

int main(void) {

    double totalPurchase;
    double discount;
    double taxAmount;
    double subTotal;
    double total;
    int custType;

    // prompt the user to enter the purchase total and use this value
    // controll looping
    printf("Enter the purchahse total or a -1 to Quit: ");
    scanf_s("%lf", &totalPurchase);

    while (totalPurchase != -1) {

        // prompt the user to indicate if this customer is a teacher or student
        // to resieve a dicount
        printf("Is this a Teacher or Student?");
        printf("\nEnter 1 for Teacher, 2 for Student, or 3 for Customer: ");
        scanf_s("%d", &custType);

        // calculate discount based on purchase total amount
        switch (custType) {
        case 1:
            if (totalPurchase >= 100) {
                discount = totalPurchase * 0.12;
            }
            else {
                discount = totalPurchase * 0.1;
            }
            break;
        case 2:
            if (totalPurchase >= 100) {
                discount = totalPurchase * 0.1;
            }
            else {
                discount = totalPurchase * 0.07;
            }
            break;
        default:
            discount = 0;
        }

        // calculate dicount tax and total amounts
        subTotal = totalPurchase - discount;
        taxAmount = subTotal * TAX;
        total = subTotal + taxAmount;

        // print a formatted reciept
        printf("\n\nTotal purchase                $ %7.2f\n", totalPurchase);
        // print teacher's dicount
        if (custType == 1 && totalPurchase >= 100) {
            printf("Teacher's Discount ( 12%% )    $ %7.2f\n", discount);
            printf("Dicounted Total                $ %7.2f\n", subTotal);
        }
        else if (custType == 1 && totalPurchase < 100) {
            printf("Teacher's Discount ( 10%% )    $ %7.2f\n", discount);
            printf("Dicounted Total                $ %7.2f\n", subTotal);
        }
        // print student's dicount
        if (custType == 2 && totalPurchase >= 100) {
            printf("Student's Discount ( 10%% )    $ %7.2f\n", discount);
            printf("Dicounted Total                $ %7.2f\n", subTotal);
        }
        else if (custType == 2 && totalPurchase < 100) {
            printf("Student's Discount ( 7%% )     $ %7.2f\n", discount);
            printf("Dicounted Total                $ %7.2f\n", subTotal);
        }
        printf("Sales Tax ( 8.25%% )            $ %7.2f\n", taxAmount);
        printf("Total                          $ %7.2f\n", total);

        printf("\n\nEnter the purchahse total or a -1 to Quit: ");
        scanf_s("%lf", &totalPurchase);

    }

    system("pause");
}

```