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// This program will read in the quarterly sales transactions for a given
// number
// of years. It will print the year and transactions in a table format.
// It will calculate year and quarter total transactions.

// PLACE YOUR NAME HERE

#include <iostream>
#include <iomanip>
using namespace std;

const int MAXYEAR = 10;
const int MAXCOL = 5;

typedef int SalesType[MAXYEAR][MAXCOL]; // creates a new 2D integer data type

void getSales(SalesType, int&); // places sales figures into the array
void printSales(SalesType, int); // prints data as a table
void printTableHeading(); // prints table heading

int main()
{
    int yearsUsed; // holds the number of years used
    SalesType sales; // 2D array holding the sales transactions

    getSales(sales, yearsUsed); // calls getSales to put data in array
    printTableHeading(); // calls procedure to print the heading
    printSales(sales, yearsUsed); // calls printSales to display table

    return 0;
}

//*****
// printTableHeading
//
// task: This procedure prints the table heading
// data in: none
// data out: none
//
//*****

void printTableHeading()
{
    cout << setw(30) << "YEARLY QUARTERLY SALES" << endl << endl << endl;

    cout << setw(10) << "YEAR" << setw(10) << "Quarter 1"
        << setw(10) << "Quarter 2" << setw(10) << "Quarter 3"
        << setw(10) << "Quarter 4" << endl;
}

//*****

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//  getSales
//
//  task:      This procedure asks the user to input the number of years.
//             For each of those years it asks the user to input the year
//             (e.g. 2004), followed by the sales figures for each of the
//             4 quarters of that year. That data is placed in a 2D array
//  data in:   a 2D array of integers
//  data out:  the total number of years
//
//*****

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void getSales(SalesType table, int& numOfYears)
{
    cout << "Please input the number of years (1-" << MAXYEAR << ")" << endl;
    cin >> numOfYears;
    const int COLL = 5;
    int startYear = 2000;

    for (int row = 0; row < numOfYears; row++)
    {
        for (int col = 0; col < COLL ; col++)
        {
            if (col == 0)
            {
                table[row][col] = startYear;
                startYear += 1;
            }
            else{
                cout << endl << "Please input the amount of sales in year " <<
                    startYear << " quarter " << col << ":" << endl;
                cin >> table[row][col];
            }
        }
    }
}

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//*****
//  printSales
//
//  task:      This procedure prints out the information in the array
//  data in:   an array containing sales information
//  data out:  none
//
//*****

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void printSales(SalesType table, int numOfYears)
{
    const int COLL = 5; // number of collums for a quarterly table
    cout << setw(10);
    for (int row = 0; row < numOfYears; row++)
    {
        for (int col = 0; col < COLL; col++)

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    {  
        cout << table[row][col] << setw(10);  
    }  
    cout << endl;  
}  
}
```