

Sales Report Program

This program allows the user to enter the sales data of four salespersons and five products, and then display the summary or search for a particular product or salesperson record.

Functions

The program defines the following functions:

- ``input``: This function takes a two-dimensional array of doubles as a parameter, representing the sales of each salesperson and product. It prompts the user to enter the sales person number, product number, and amount, and updates the corresponding element in the array. It repeats until the user enters 0 to quit.
- ``salesperson_total``: This function takes an integer and a two-dimensional array of doubles as parameters, representing the salesperson number and the sales of each salesperson and product. It loops through the array and adds up the sales amount for that salesperson across all products. It returns the total sales for that salesperson as a double.
- ``product_total``: This function takes an integer and a two-dimensional array of doubles as parameters, representing the product number and the sales of each salesperson and product. It loops through the array and adds up the sales amount for that product across all salespersons. It returns the total sales for that product as a double.
- ``display_t``: This function takes a two-dimensional array of doubles as a parameter, representing the sales of each salesperson and product. It displays a table showing the total sales for each salesperson and product, as well as the grand total. It uses tabs to align the columns and dashes to separate the rows. It calls the ``salesperson_total`` and ``product_total`` functions to calculate the totals and bonuses for each row and column.
- ``display_product``: This function takes an integer and a two-dimensional array of doubles as parameters, representing the product number and the sales of each salesperson and product. It displays the amount sold by each salesperson for that product, using a loop and an index variable to access the array elements.

Main Program

The main program does the following steps:

- Declares a two-dimensional array of doubles with 4 rows and 5 columns, initialized to zero, to store the sales data.
- Calls the ``input`` function to fill in the array with user input.
- Prompts the user to choose between displaying a summary table or searching for a particular product or salesperson record.
- If the user chooses to display a summary table, calls the ``display_t`` function to show the table.
- If the user chooses to search for a record, prompts the user to choose between searching for a product or a salesperson.
- If the user chooses to search for a product, prompts the user to enter the product number, calls the ``display_product`` function to show the details, and calls the ``product_total`` function to show the total amount sold for that product.

- If the user chooses to search for a salesperson, prompts the user to enter the salesperson number, displays the amount sold by that salesperson for each product, calls the ``salesperson_total`` function to show the total value of products sold by that salesperson, and calculates and displays a bonus of 5% of that value.