

Aim:

Project Module

Source Code:

hello.c

```
//write your code here..
#include <stdio.h>
#include <string.h>

// Define a structure to store product information
typedef struct {
    int id;
    char name[50];
    char description[100];
    char deliveryStatus[20];
    char destination[50];
} Product;

// Function prototypes
void displayProductInfo(Product product);
void displayProductStatus(Product product);
void displayProductDestination(Product product);
void displayAllProducts(Product products[], int size);

int main() {
    // Initialize product information
    Product products[5] = {
        {101, "Laptop", "High-end gaming laptop", "Delivered", "New York"},
        {102, "Smartphone", "Latest model smartphone", "In Transit", "San Francisco"},
        {103, "Headphones", "Noise-cancelling headphones", "Delivered", "Los Angeles"},
        {104, "Smartwatch", "Feature-rich smartwatch", "Shipped", "Chicago"},
        {105, "Tablet", "10-inch display tablet", "Processing", "Houston"}
    };

    int choice, id, i;
    int productFound;

    while (1) {
        // Display menu
        printf("\nMenu:\n");
        printf("1. Show Product Info\n");
        printf("2. Show Product Status\n");
        printf("3. Show Product Destination\n");
        printf("4. Show All Product Information\n");
        printf("0. Exit\n");
        printf("Enter your choice: ");
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        break;
    }

    switch (choice) {
        case 1:
            printf("Enter Product ID: ");
            scanf("%d", &id);
            productFound = 0;
            for (i = 0; i < 5; i++) {
                if (products[i].id == id) {
                    displayProductInfo(products[i]);
                    productFound = 1;
                    break;
                }
            }
            if (!productFound) {
                printf("Product not found!\n");
            }
            break;

        case 2:
            printf("Enter Product ID: ");
            scanf("%d", &id);
            productFound = 0;
            for (i = 0; i < 5; i++) {
                if (products[i].id == id) {
                    displayProductStatus(products[i]);
                    productFound = 1;
                    break;
                }
            }
            if (!productFound) {
                printf("Product not found!\n");
            }
            break;

        case 3:
            printf("Enter Product ID: ");
            scanf("%d", &id);
            productFound = 0;
            for (i = 0; i < 5; i++) {
                if (products[i].id == id) {
                    displayProductDestination(products[i]);
                    productFound = 1;
                    break;
                }
            }
            if (!productFound) {
                printf("Product not found!\n");
            }
            break;
    }
}

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        default:
            printf("Invalid choice! Please try again.\n");
        }
    }

    return 0;
}

void displayProductInfo(Product product) {
    printf("\nProduct Info:\n");
    printf("ID: %d\n", product.id);
    printf("Name: %s\n", product.name);
    printf("Description: %s\n", product.description);
    printf("Delivery Status: %s\n", product.deliveryStatus);
    printf("Destination: %s\n", product.destination);
}

void displayProductStatus(Product product) {
    printf("\nProduct Status:\n");
    printf("ID: %d\n", product.id);
    printf("Delivery Status: %s\n", product.deliveryStatus);
}

void displayProductDestination(Product product) {
    printf("\nProduct Destination:\n");
    printf("ID: %d\n", product.id);
    printf("Destination: %s\n", product.destination);
}

void displayAllProducts(Product products[], int size) {
    printf("\nAll Product Information:\n");
    for (int i = 0; i < size; i++) {
        displayProductInfo(products[i]);
        printf("\n");
    }
    printf("Hello World");
}

```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Hello World