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<u>Definition:-</u>

InfoTech company is a distributer company of Hindustan liver ltd. Company doing business of goods selling and purchase in the market. So, business point of view record should be maintaining in a proper way. Company want to develop a software program which will take care of following functionality which will help to transact the business in a systematic way. So, some of the major functionality is given which you have to complete.

1. Add Goods
2. Display Goods
3. Update Goods.
4. Search Goods.
5. Delete Goods.
6. Exit

Enter choice:1
Enter goods id:1001
Enter goods name: Laptop
Enter price of goods: 25000
Enter quantity of goods:1
Total Price of goods: 25000

Enter new records (Y/N): N

Enter choice:3
Enter goods id:1001
Enter new quantity of goods:4

Enter new records(Y/N):N

Enter choice:2
1001 Laptop 25000 4
100000

Note: File handling has been used to record the information (rate, quantity, name and code) of the added goods. You can search the goods by rate, code or quantity. And, similar goes for display; you can display the items by quantity, rate or code.

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<u>Code:</u>

```c
#include <stdio.h>
#include <stdlib.h>
#include <string.h>

// This programme provides the functionality of maintaining
the records of goods

struct goods {
    int id;
    char name[100];
    float price;
    int quantity;
};

struct goods a[1000], b[1000];

FILE *fp;

int i = 0;

void add() {
    fp = fopen("goods.txt", "a");

    printf("\nEnter the good ID: ");
    scanf("%d", &a[i].id);
    printf("\nEnter the name of the good: ");
    scanf("%s", a[i].name);
    printf("\nEnter the price of the good: ");
    scanf("%f", &a[i].price);
    printf("\nEnter the quantity of good: ");
```

```c
    scanf("%d", &a[i].quantity);

    fprintf(fp, "%d %s %.2f %d\n", a[i].id, a[i].name,
a[i].price, a[i].quantity);
    i++;

    fclose(fp);
}

void display() {
    char c;
    int t_price = 0;
    fp = fopen("goods.txt", "r");

    printf("\n");

    while((c = getc(fp)) != EOF) {
        putchar(c);
    }

    fclose(fp);
}

void update(int u_id, int choice) {
    fp = fopen("goods.txt", "w");
    fclose(fp);

    fp = fopen("goods.txt", "a");

    if (choice == 1)
    {
        for (int j = 0; j < i; j++) {
```

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```c
            if (u_id == a[j].id) {
                printf("%d %s %.2f %d\n", a[j].id,
a[j].name, a[j].price, a[j].quantity);

                printf("\nEnter the new ID of the good:
");
                scanf("%d", &a[j].id);

                for (int k = 0; k < i; k++) {
                    fprintf(fp, "%d %s %.2f %d\n",
a[k].id, a[k].name, a[k].price, a[k].quantity);
                }
            }
        }
    }

    if (choice == 2)
    {
        for (int j = 0; j < i; j++) {
            if (u_id == a[j].id) {
                printf("%d %s %.2f %d\n", a[j].id,
a[j].name, a[j].price, a[j].quantity);

                printf("\nEnter the new NAME of the good:
");
                scanf("%s", a[j].name);

                for (int k = 0; k < i; k++) {
                    fprintf(fp, "%d %s %.2f %d\n",
a[k].id, a[k].name, a[k].price, a[k].quantity);
                }
            }
```

```c
        }
    }

    if (choice == 3)
    {
        for (int j = 0; j < i; j++) {
            if (u_id == a[j].id) {
                printf("%d %s %.2f %d\n", a[j].id,
a[j].name, a[j].price, a[j].quantity);

                printf("\nEnter the new PRICE of the good:
");
                scanf("%f", &a[j].price);

                for (int k = 0; k < i; k++) {
                    fprintf(fp, "%d %s %.2f %d\n",
a[k].id, a[k].name, a[k].price, a[k].quantity);
                }
            }
        }
    }

    if (choice == 4)
    {
        for (int j = 0; j < i; j++) {
            if (u_id == a[j].id) {
                printf("%d %s %.2f %d\n", a[j].id,
a[j].name, a[j].price, a[j].quantity);

                printf("\nEnter the new QUANTITY of the
good: ");
                scanf("%d", &a[j].quantity);
```

```c
                    for (int k = 0; k < i; k++) {
                            fprintf(fp, "%d %s %.2f %d\n",
a[k].id, a[k].name, a[k].price, a[k].quantity);
                    }
                }
            }
    }

    printf("\nRecord updated!\n");

    fclose(fp);
}

void search(int n) {
    fp = fopen("goods.txt", "r");

    if (n == 1) {
        int s_id, t_price = 0;
        printf("\nThe ID you want to search: ");
        scanf("%d", &s_id);
        printf("\n");

        for (int j = 0; j < i; j++) {
            if (s_id == a[j].id) {
                    printf("%d %s %.2f %d\n", a[j].id,
a[j].name, a[j].price, a[j].quantity);
                    t_price += a[j].price;
            }
        }
```

```
        printf("\nTotal price of the good(s) are: %d\n",
t_price);
    }

    else if (n == 2) {
        char s_name[100];
        int t_price = 0;
        printf("\nThe NAME you want to search: ");
        scanf("%s", s_name);
        printf("\n");

        for (int j = 0; j < i; j++) {
            if (strcmp(s_name, a[j].name) == 0) {
                printf("%d %s %.2f %d\n", a[j].id,
a[j].name, a[j].price, a[j].quantity);
                t_price += a[j].price;
            }
        }

        printf("\nTotal price of the good(s) are: %d\n",
t_price);
    }

    else if (n == 3) {
        float s_price;
        int t_price = 0;
        printf("\nThe PRICE you want to search: ");
        scanf("%d", &s_price);
        printf("\n");

        for (int j = 0; j < i; j++) {
            if (s_price == a[j].price) {
```

```c
                printf("%d %s %.2f %d\n", a[j].id,
a[j].name, a[j].price, a[j].quantity);
                t_price += a[j].price;
            }
        }

        printf("\nTotal price of the good(s) are: %d\n",
t_price);
    }

    else if (n == 4) {
        int s_quantity, t_price = 0;
        printf("\nThe QUANTITY you want to search: ");
        scanf("%d", &s_quantity);
        printf("\n");

        for (int j = 0; j < i; j++) {
            if (s_quantity == a[j].quantity) {
                printf("%d %s %.2f %d\n", a[j].id,
a[j].name, a[j].price, a[j].quantity);
                t_price += a[j].price;
            }
        }

        printf("\nTotal price of the good(s) are: %d\n",
t_price);
    }

    else {
        printf("\nPlease pick from the options provided!\
n");
    }
```

```c
    fclose(fp);
}

void delete(int n) {
    fp = fopen("goods.txt", "w");
    fclose(fp);

    fp = fopen("goods.txt", "a");

    if (n == 1) {
        int d_id;
        printf("\nThe ID you want to delete: ");
        scanf("%d", &d_id);

        int k = 0;
        for (int j = 0; j < i; j++) {
            if (d_id != a[j].id) {
                b[k].id = a[j].id;
                strcpy(b[k].name, a[j].name);
                b[k].price = a[j].price;
                b[k].quantity = a[j].quantity;
                k++;
            }
        }

        for (int j = 0; j < k; j++) {
            a[j].id = b[j].id;
            strcpy(a[j].name, b[j].name);
            a[j].price = b[j].price;
            a[j].quantity = b[j].quantity;
        }
```

```c
        for (int j = 0; j < k; j++) {
            fprintf(fp, "%d %s %.2f %d\n", a[j].id,
a[j].name, a[j].price, a[j].quantity);
        }
    }

    else if (n == 2) {
        char d_name[100];
        printf("\nThe NAME you want to delete: ");
        scanf("%s", d_name);
        printf("\n");

        int k = 0;
        for (int j = 0; j < i; j++) {
            if (strcmp(d_name, a[j].name) != 0) {
                b[k].id = a[j].id;
                strcpy(b[k].name, a[j].name);
                b[k].price = a[j].price;
                b[k].quantity = a[j].quantity;
                k++;
            }
        }

        for (int j = 0; j < k; j++) {
            a[j].id = b[j].id;
            strcpy(a[j].name, b[j].name);
            a[j].price = b[j].price;
            a[j].quantity = b[j].quantity;
        }

        for (int j = 0; j < k; j++) {
```

```c
            fprintf(fp, "%d %s %.2f %d\n", b[j].id,
b[j].name, b[j].price, b[j].quantity);
        }
    }

    else {
        printf("\nPlease pick from the options provided!\
n");
    }

    printf("\nRecord Deleted!\n");

    fclose(fp);

}

int main() {
    fp = fopen("goods.txt", "w");
    fclose(fp);

    int choice, ch, num;
    float t_price = 0;

    start:
    printf("\nPlease pick one of these options:-\n");
    printf("\n1 ⇒ Add New Goods.\n2 ⇒ Display Goods.\n3
⇒ Update Goods.\n4 ⇒ Search Goods.\n5 ⇒ Delete Goods.\n6
⇒ Exit\n\nEnter your choice: ");
    scanf("%d", &choice);

    switch (choice)
    {
```

```c
        case 1:
            add();
            goto start;

        case 2:
            display();

            for (int j = 0; j < 1000; j++) {
                t_price += a[j].price;
            }

            printf("\nTotal price of the good(s) are: %d\n", t_price);

            goto start;

        case 3:
            display();

            printf("\nEnter the ID of the good to UPDATE: ");

            scanf("%d", &num);

            printf("\nPlease input the parameter you want to UPDATE from the options below:-\n\n1 → ID.\n2 → Name.\n3 → Price.\n4 → Quantity.\n\nEnter your choice: ");
            scanf("%d", &ch);
            update(num, ch);
            goto start;

        case 4:
```

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```
                printf("\nPlease input the SEARCH parameter
from the options below:-\n\n1 → By ID.\n2 → By Name.\n3 →
By Price.\n4 → By Quantity.\n\nEnter your choice: ");
                scanf("%d", &ch);
                search(ch);

                goto start;

        case 5:
                printf("\nPlease input the parameter for
DELETION from the options below:-\n\n1 → By ID.\n2 → By
Name.\n\nEnter your choice: ");
                scanf("%d", &ch);
                delete(ch);
                goto start;

        case 6:
                return 0;

        default:
                printf("\nPlease input from the options
given!\n");
                goto start;
    }

    return 0;
}
```

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<u>Output:</u>


```
./10162179036-and-10162179035_Store-Management-System

ESFP-1/C/Project-1
→ ./10162179036-and-10162179035_Store-Management-System

Please pick one of these options:-

1 => Add New Goods.
2 => Display Goods.
3 => Update Goods.
4 => Search Goods.
5 => Delete Goods.
6 => Exit

Enter your choice: 1

Enter the good ID: 1001

Enter the name of the good: Laptop

Enter the price of the good: 25000

Enter the quantity of good: 1

Please pick one of these options:-

1 => Add New Goods.
2 => Display Goods.
3 => Update Goods.
4 => Search Goods.
5 => Delete Goods.
6 => Exit

Enter your choice: 3

1001 Laptop 25000.00 1

Enter the ID of the good to UPDATE: 1001

Please input the parameter you want to UPDATE from the options below:-

1 -> ID.
2 -> Name.
3 -> Price.
4 -> Quantity.

Enter your choice: 4

1001 Laptop 25000.00 1

Enter the new QUANTITY of the good: 4

Record updated!
```

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```
Please pick one of these options:-

1 => Add New Goods.
2 => Display Goods.
3 => Update Goods.
4 => Search Goods.
5 => Delete Goods.
6 => Exit

Enter your choice: 2

1001 Laptop 25000.00 4

Total price of the good(s) are: 100000.00

Please pick one of these options:-

1 => Add New Goods.
2 => Display Goods.
3 => Update Goods.
4 => Search Goods.
5 => Delete Goods.
6 => Exit

Enter your choice: 6

Total price of the good(s) are: 100000.00

ESFP-1/C/Project-1 took 18s
→
```