

SHOPPING APPLICATION CODE

```
#include <stdio.h>
```

```
#include <stdlib.h>
```

```
#include <string.h>
```

```
#define MAX_ITEMS 10
```

```
#define MAX_NAME_LENGTH 50
```

```
#define NUM_DEFAULT_ITEMS 10
```

```
//Items Available
```

```
char defaultItems[NUM_DEFAULT_ITEMS][MAX_NAME_LENGTH] = {  
    "Milk","Juice","Eggs","Cheese","Toothpaste","Brush","Mobile",  
    "Laptop","Coconut oil","Deodorant"};
```

```
float defaultPrices[NUM_DEFAULT_ITEMS] = {  
    49.0,40.0,23.0,25.0,20.0,10.0,20000.0,40000.0,43.0,78.0  
};
```

```
//Where user's items are stored
```

```
char cart[MAX_ITEMS][MAX_NAME_LENGTH];
```

```
float cartPrices[MAX_ITEMS];
```

```
int numItems = 0;
```

```
// Accept details
```

```
void printUserDetails(char name[], char address[]) {  
    printf("User Details:\n");  
    printf("Name: %s\n", name);  
    printf("Address: %s\n", address); }
```

```
void displayDefaultItems() {
```

```
// Sort default items by price
```

```
    for (int i = 0; i < NUM_DEFAULT_ITEMS - 1; i++) {  
        for (int j = i+1; j < NUM_DEFAULT_ITEMS - 1; j++) {  
            if (defaultPrices[j] > defaultPrices[j + 1]) {
```

```
// Swap item names according to respective price
```

```
        char tempName[MAX_NAME_LENGTH];  
        strcpy(tempName, defaultItems[j]);  
        strcpy(defaultItems[j], defaultItems[j + 1]);  
        strcpy(defaultItems[j + 1], tempName);
```

```
// Swap item's prices
```

```
        float tempPrice = defaultPrices[j];  
        defaultPrices[j] = defaultPrices[j + 1];  
        defaultPrices[j + 1] = tempPrice;  
    }
```

```
}
```

```
}
```

```
printf("Available items (sorted by price):\n");
for (int i = 0; i < NUM_DEFAULT_ITEMS; i++) {
    printf("%d. %s - Rs %.2f\n", i + 1, defaultItems[i], defaultPrices[i]);
}
}
```

//Search items

```
int searchItem(char itemName[]) {
    for (int i = 0; i < NUM_DEFAULT_ITEMS; i++) {
        if (strcmp(defaultItems[i], itemName) == 0) {
            return i;
        }
    }
    return -1;
}
```

//Display cart

```
void displayCart() {
    if (numItems == 0) {
        printf("Cart is empty\n");
        return;
    }

    printf("Items in cart:\n");
    for (int i = 0; i < numItems; i++) {
        printf("%d. %s - Rs %.2f\n", i + 1, cart[i], cartPrices[i]);
    }
}
```

//Editing cart

```
void removeFromCart(int index) {  
    if (index < 0 || index >= numItems) {  
        printf("Invalid index\n");  
        return;  
    }  
  
    for (int i = index; i < numItems - 1; i++) {  
        strcpy(cart[i], cart[i + 1]);  
        cartPrices[i] = cartPrices[i + 1];  
    }  
  
    numItems--;  
}
```

//Calculating bill

```
float calculateTotal() {  
    float total = 0.0;  
    for (int i = 0; i < numItems; i++) {  
        total += cartPrices[i];  
    }  
    return total;  
}
```

```
int main() {  
    char name[MAX_NAME_LENGTH], address[MAX_NAME_LENGTH];
```

```
printf("Enter your name: ");  
scanf("%s", name);
```

```
printf("Enter your address: ");  
scanf("%s", address);
```

```
printUserDetails(name,address);
```

```
//Menu for User
```

```
int choice;  
do {  
    printf("\n1. Search for item\n");  
    printf("2. Display available items\n");  
    printf("3. Display cart\n");  
    printf("4. Sort items by price and display\n");  
    printf("5. Remove item from cart\n");  
    printf("6. Calculate total amount\n");  
    printf("7. Exit\n");  
    printf("Enter your choice: ");  
    scanf("%d", &choice);  
  
    if(choice==1)  
    {  
        char itemName[MAX_NAME_LENGTH];  
        printf("Enter item name to search: ");
```

```
scanf("%s", itemName);
int index = searchItem(itemName);
if (index != -1) {
    strcpy(cart[numItems], defaultItems[index]);
    cartPrices[numItems] = defaultPrices[index];
    numItems++;
    printf("Item added to cart\n");
} else {
    printf("Item not available\n");}
if(choice==2){
    displayDefaultItems();}
if (choice==3){
    displayCart();}
if (choice==4){
    displayDefaultItems();}
if (choice==5){
    int index;
    printf("Enter index of item to remove: ");
    scanf("%d", &index);
    removeFromCart(index - 1);
    printf("Item removed from cart\n");}
if (choice==6){
    printf("Total amount: Rs %.2f\n", calculateTotal());}
if (choice==7){
    printf("Exiting...\n");
    exit(0);}
```

```
else{  
    printf("Invalid choice\n");}  
while (1);  
return 0;  
}
```