

# ASSIGNMENT

By

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### 1. Write a program to Select The Best Product From The Offers

Description:

In a shopping centre, there 'N' number of items with different discounts offering. Mr. Ravi as the customer having his own opinion that

- high discount products saves money but low in quality and
- low discount products gives more quality but expenditure is more.

So, he decided that not buy products with too high discounted or too low discounted products.

So he need the products of his own specified tow discounted products (Both Exclusive)

Suggest to Mr. Ravi from 'N' products lists of his matching given discounted products

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

```
// Structure to store product information
```

```
typedef struct Product {
```

```
    char name[50];
```

```
    float price;
```

```
    float discount;
```

```
} Product;
```

```
int main() {
```

```
    // Get number of products
```

```
    int n;
```

```
    printf("Enter the number of products: ");
```

```
    scanf("%d", &n);
```

```
    // Get Mr. Ravi's desired discount range
```

```
    float min_discount, max_discount;
```

```
    printf("Enter the minimum discount (exclusive): ");
```

```
    scanf("%f", &min_discount);
```

```
    printf("Enter the maximum discount (exclusive): ");
```

```
    scanf("%f", &max_discount);
```

```
// Read product information
Product products[n];
for (int i = 0; i < n; i++) {
    printf("Enter product %d details:\n", i + 1);
    printf("Name: ");
    scanf("%s", products[i].name);
    printf("Price: ");
    scanf("%f", &products[i].price);
    printf("Discount: ");
    scanf("%f", &products[i].discount);
}

// Find and list suitable products
printf("Products within %f%% and %f%% discount range:\n", min_discount,
max_discount);
int found = 0;
for (int i = 0; i < n; i++) {
    if (products[i].discount > min_discount && products[i].discount < max_discount) {
        printf("- %s (%.2f%% off)\n", products[i].name, products[i].discount * 100);
        found = 1;
    }
}

if (!found) {
    printf("No products found within your specified discount range.\n");
}

return 0;
}
```

2. Write a C program to check if a string is a palindrome

```
#include<stdio.h>
void main()
{
    char a[100];
    printf("Enter the string:");
    scanf("%[^\n]s",a);
    int i,len=0;
    for(i=0;;i++)
    {
        if(a[i]=='\0')
            break;
        else
            len++;
    }
    printf("Length of the string is=%d\n",len);

    char b[len];
    int j=0;
    for(i=len-1;i>=0;i--)
    {
        b[j]=a[i];
        j++;
    }

    printf("The copied string %s\n",b);
    int flag=0;
    for(i=0;i<len;i++)
    {
        int m=a[i];
        int n=b[i];
        if(m!=n)
        {
            flag=1;
            break;
        }
    }
    if(flag==0)
        printf("The given string is palindrome");
    else
        printf("The given string is not palindrome");
}
```