

MENU DRIVEN C PROGRAM FOR BOOK SHOP

A PROJECT REPORT

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of

BACHELOR OF TECHNOLOGY

in

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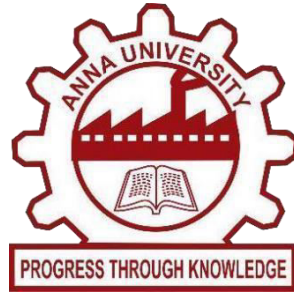
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BONAFIDE CERTIFICATE

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The report of the project work submitted by the above students in partial fulfillment for the award of Bachelor of Technology Degree in Artificial Intelligence and Machine Learning of Anna University was confirmed to be report of the work done by the above students and then evaluated.

Submitted to Project and Viva Examination held on_____.

INTERNAL EXAMINER

EXTERNAL EXAMINER

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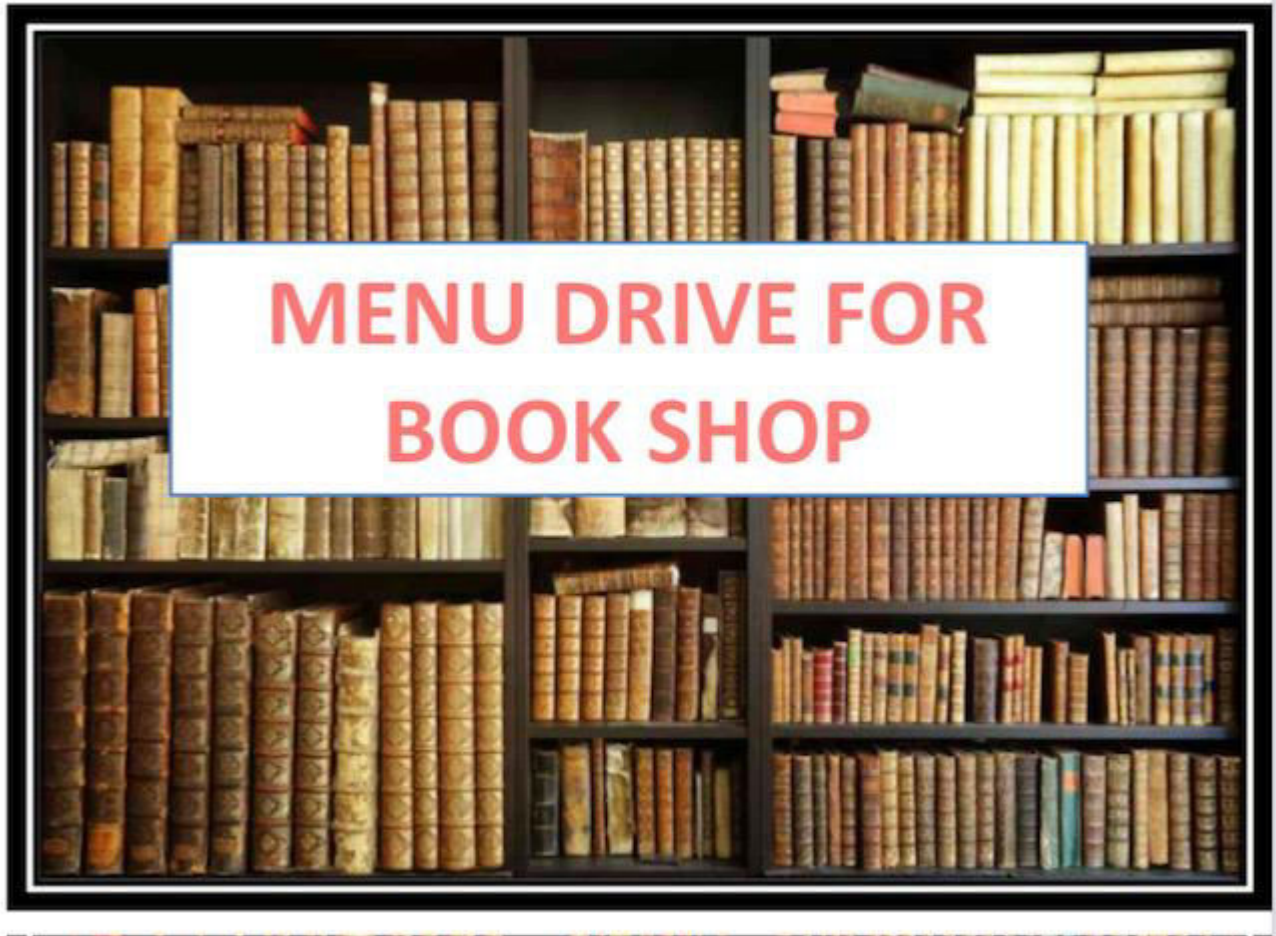
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ABSTRACT

Menu-driven program in C is a type of program in which various options are provided to user and some functionality is provided based on these options. These programs are used to provide a simple yet effective user interface and deliver the requested functionalities to the user. This article provides an overview of menu-driven program in c. It is always easier to choose something from a handful of options rather than picking something from an ocean of choices. Also, it is much easier to choose something from a collection if the collection is very well organized. This is where menus come into the picture. A menu is simply a list of items that can be used to provide an overview of something. For example, in a restaurant, a menu is used to provide an overview of the dishes that the restaurant offers. This article also contains a menu using which you can navigate and access different sections of the article. Now, how do we apply this concept of menus in software development? This is where menu-driven programs are used!!!

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>>Question:

Write a 'C' program to accept book details for 'n' books as book _title, author, publisher and cost. Assign the accession number to each book in increasing order.

>>GIVEN DETAILS:

1. Books of a specific author
2. Books by a specific Publisher
3. All Books costing Rs. 500 and above.
4. All Books.

ALGORITHM:

Menu-driven programs are choice-based programs that are used to execute a set of statements based on the user's choices. The general algorithm for the menu-driven program in C is:

Step 1: START

Step 2: Take the choice input from the user.

Step 3: Execute a specific set of statements according to the user's choice.

Step 4: Repeat Step 3, till the user selects a valid option in Step 2.

Step 5: STOP

Now, let's look at implementing the above algorithm in the C programming language.

>>SOURCE CODE:

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

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

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

```
struct book
```

```
{
```

```
    int bno,bcost,baccno;
```

```
    char bname[20],bpub[20],bauthor[20];
```

```
}p[10];
```

```
int main()
```

```
{
```

```
    int n,i,ch;
```

```
    char pubname[20],authorname[20];
```

```
    printf("/*How Many Records of Books You Want to Add*/\n\nEnter
```

```
Limit : ");
```

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

```
    printf("-----\n");
```

```

for(i=0;i<n;i++)

{

    printf("\tEnter Details of Book-%d",i+1);

    printf("\n-----\n");

    printf("Book Number    : ");

    scanf("%d",&p[i].bno);

    printf("Book Name      : ");

    scanf("%s",p[i].bname);

    printf("Author Name    : ");

    scanf("%s",p[i].bauthor);

    printf("Publication : ");

    scanf("%s",p[i].bpub);

    printf("Cost          : ");

    scanf("%d",&p[i].bcost);

    printf("Accession Number : ");

    scanf("%d",&p[i].baccno);

    printf("-----\n");

}

```

```

while(1)

{

    printf("\n\t\tMENU\n");

    printf("-----\n");

    printf("\n1.Books of Specific Author");

    printf("\n2.Books of Specific Publisher");

    printf("\n3.All Books Costing Rs. 500 & Above");

    printf("\n4.All Books");

    printf("\n5.Exit");

    printf("\n-----\n");

    printf("\nEnter Your Choice : ");

    scanf("%d",&ch);

    printf("\n");

    switch(ch)

    {

        case 1:

            printf("Enter Author Name : ");

            scanf("%s",authorname);

```

```

for(i=0;i<n;i++)

{

    if(strcmp(p[i].bauthor,authorname)==0)

        printf("\nBook Number      : %d\nBook Name      :

%s\nAccession Number : %d\n",p[i].bno,p[i].bname,p[i].baccno);

}

break;

case 2:

    printf("Enter Publication Name : ");

    scanf("%s",pubname);

    for(i=0;i<n;i++)

    {

        if(strcmp(p[i].bpub,pubname)==0)

            printf("\nBook Number      : %d\nBook Name      :

%s\nAccession Number : %d\n\n",p[i].bno,p[i].bname,p[i].baccno);

    }

    break;

case 3:

```

```

for(i=0;i<n;i++)

{

    if(p[i].bcost>=500)

    {

        printf("Book Number : %d\n",p[i].bno);

        printf("Book Name : %s \n",p[i].bname);

        printf("Cost : %d\n",p[i].bcost);

        printf("Accession Number : %d\n",p[i].baccno);

        printf("\n-----\n");

    }

}

break;

```

case 4:

```

for(i=0;i<n;i++)

{

    printf("Book Number : %d\n",p[i].bno);

    printf("Book Name : %s \n",p[i].bname);

    printf("Author : %s\n",p[i].bauthor);

```

```
        printf("Publisher : %s\n",p[i].bpub);

        printf("Cost : %d\n",p[i].bcost);

        printf("Accession Number : %d\n",p[i].baccno);

        printf("\n-----\n");

    }

    break;

case 5:

    exit(0);

}

}

return 0;

}
```

>>O/P:

Output 1:

```
/*How Many Records of Books You Want to Add*/
Enter Limit : 2
-----
          Enter Details of Book-1
-----
Book Number      : 100
Book Name        : c-programming
Author Name      : manas-gosh
Publication      : pearson
Cost             : 465
Accession Number : 112
-----
          Enter Details of Book-2
-----
Book Number      : 102
Book Name        : object-oriented
Author Name      : balguru
Publication      : nirali
Cost             : 640
Accession Number : 122
```

Output 2:

```
-----
                      MENU
-----
1.Books of Specific Author
2.Books of Specific Publisher
3.All Books Costing Rs. 500 & Above
4.All Books
5.Exit
-----
Enter Your Choice : 1
Enter Author Name : manas-gosh

Book Number      : 100
Book Name        : c-programming
Accession Number : 112
```


Output 3:

```

                                MENU
-----

1.Books of Specific Author
2.Books of Specific Publisher
3.All Books Costing Rs. 500 & Above
4.All Books
5.Exit
-----

Enter Your Choice : 2

Enter Publication Name : nirali

Book Number      : 102
Book Name        : object-oriented
Accession Number : 122

```

Output 4:

```

                                MENU
-----

1.Books of Specific Author
2.Books of Specific Publisher
3.All Books Costing Rs. 500 & Above
4.All Books
5.Exit
-----

Enter Your Choice : 3

Book Number : 102
Book Name : object-oriented
Cost : 640
Accession Number : 122

```

Output 5:

```
-----  
                          MENU  
-----  
  
1.Books of Specific Author  
2.Books of Specific Publisher  
3.All Books Costing Rs. 500 & Above  
4.All Books  
5.Exit  
-----  
  
Enter Your Choice : 4  
  
Book Number   : 100  
Book Name    : c-programming  
Author       : manas-gosh  
Publisher    : pearson  
Cost         : 465  
Accession Number : 112  
  
-----  
  
Book Number   : 102  
Book Name    : object-oriented  
Author       : balguru  
Publisher    : nirali  
Cost         : 640  
Accession Number : 122
```

Output 6:

```
-----  
                          MENU  
-----  
  
1.Books of Specific Author  
2.Books of Specific Publisher  
3.All Books Costing Rs. 500 & Above  
4.All Books  
5.Exit  
-----  
  
Enter Your Choice : 5  
  
...Program finished with exit code 0
```

PROGRAM EXPLANATION:

In the above example, we first created two methods, namely `odd_even()` and `prime()`.

Here, the `odd_even()` method is used to check whether the input number is odd or even, whereas the `prime()` method is used to verify whether the input number is prime or not.

These two functions are executed based on the choice entered by the user. We initialized a choice variable to take the choice from the user. This variable is then passed as an expression to the switch statement. Depending on the value of the choice variable, a case block is executed i.e., if the value of choice is 1 then the `odd_even()` method is executed, if 2 then the `prime()` method is executed, and the value 3 is used to exit from the menu, and any other value is considered invalid. Because of the use of separate functions inside each case block, we can easily modify these functions without affecting the whole code. Hence, this approach helps us to separate the user's menu from the actual functionality and allows us to write a clean, manageable, and readable menu-driven program in C.

>>CONCLUSION

This program provided an overview of Menu driven C program for book shop .

This program enables some basic features of menu for book shop.

>>REFERENCE:

Programming in c (second edition)---Reema Thareja.
