LIBRARY MANAGEMENT SYSTEM

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Batch: B. Tech - CSE - C1

PPS Mini Project
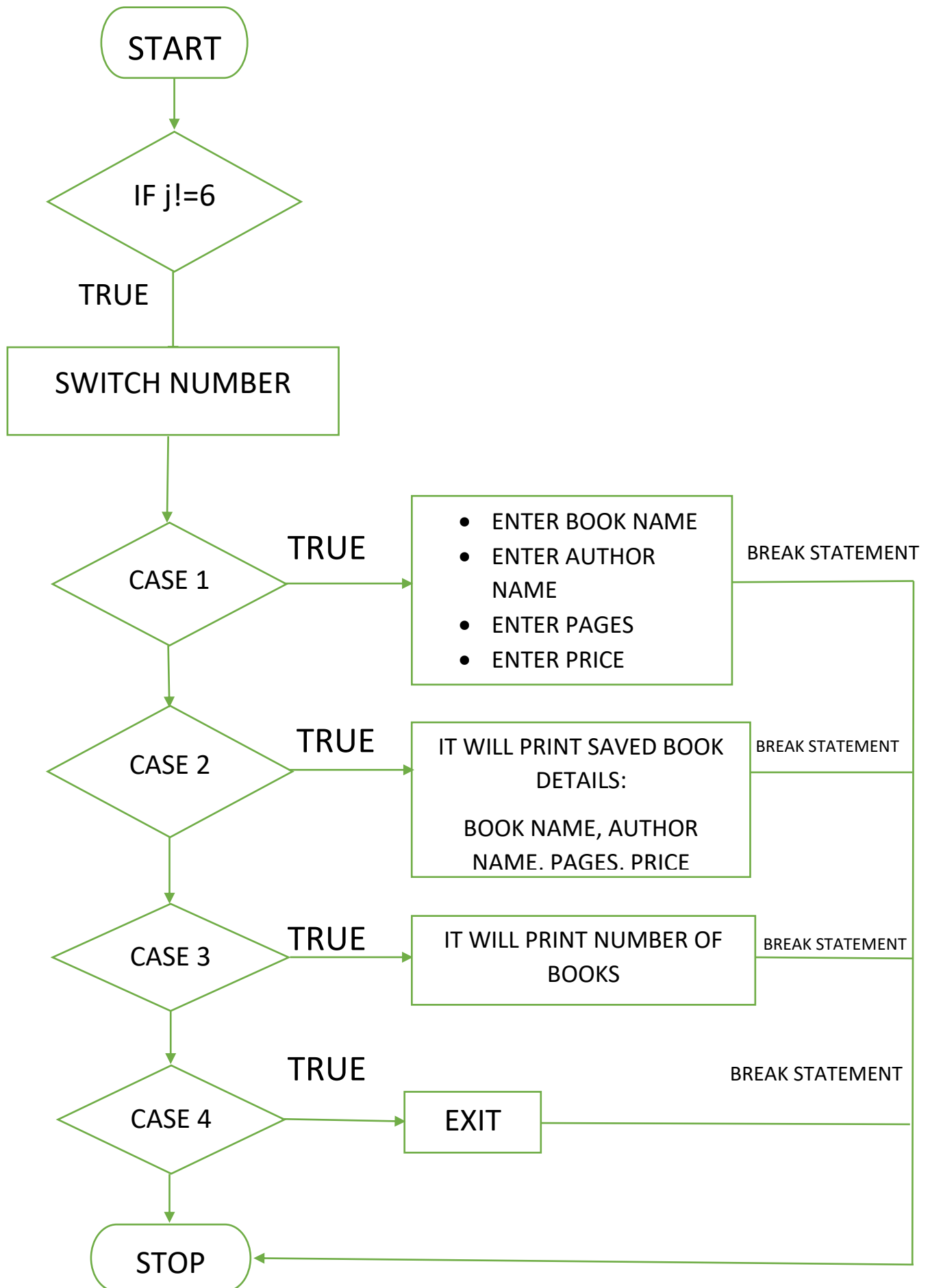
OBJECTIVE:

The main objective of of the Library Management system is to manage the details of Books, like Book name, Author name, Number of Pages, Price. It manages all the informations of the books.

PROBLEM DEFINITION:

A library management is a project that manages and stores books information electronically according to student's needs. The system helps both students and library manager to keep a constant track of all the books available in the library. The problem faced is that library users require an efficient method to find a specific book. It allows both the admin and the student to search for the desired book.

FLOWCHART:

```
                    ┌──────────────┐
                    │    START     │
                    └──────┬───────┘
                           │
                           ▼
                      ╱─────────╲
                     ╱  IF j!=6  ╲
                     ╲           ╱
                      ╲─────────╱
                           │
                         TRUE
                           │
                           ▼
                    ┌──────────────┐
                    │ SWITCH NUMBER │
                    └──────┬───────┘
                           │
                           ▼
```

IF j!=6

TRUE

SWITCH NUMBER

CASE 1 — **TRUE** →
- ENTER BOOK NAME
- ENTER AUTHOR NAME
- ENTER PAGES
- ENTER PRICE

BREAK STATEMENT

CASE 2 — **TRUE** →
IT WILL PRINT SAVED BOOK DETAILS:

BOOK NAME, AUTHOR NAME. PAGES. PRICE

BREAK STATEMENT

CASE 3 — **TRUE** →
IT WILL PRINT NUMBER OF BOOKS

BREAK STATEMENT

CASE 4 — **TRUE** →
EXIT

BREAK STATEMENT

STOP

ALGORITHM:

Step 1: Declare a structure which holds data members

Step 2: declare variables which are used for loop

Step 3: use switch case to work on each module

Step 4: case 1- for Adding book information

Case 2- for Display book information

Case 3- for Finding number for books in library

Case 4- for EXIT

PROGRAM:

```c
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
#include<string.h>
struct library{
    char bookname[50];
    char author[50];
    int noofpages;
    float price;
};
int main(){
    struct library lib[100];
    char bookname[30];
    int i,j, keepcount;
    i=j=keepcount = 0;
    while(j!=6){
        printf("\n1. Add book information\n");
        printf("2.Display book information\n");
        printf("3. no of books in the library\n");
        printf("4. Exit");
        printf ("\n\nEnter one of the above : ");
        scanf("%d",&j);
        switch (j){

case 1:
            printf ("Enter book name = ");
            scanf ("%s",&lib[i].bookname);
            printf ("Enter author name = ");
            scanf ("%s",&lib[i].author);
            printf ("Enter pages = ");
            scanf ("%d",&lib[i].noofpages);
            printf ("Enter price = ");
            scanf ("%f",&lib[i].price);
            keepcount++;
            i++;
            break;
```

```
37              case 2:
38                  printf("you have entered the following information\n");
39                  for(i=0; i<keepcount; i++){
40                      printf ("book name = %s\n",lib[i].bookname);
41                      printf ("\t author name = %s\n",lib[i].author);
42                      printf ("\t pages = %d\n",lib[i].noofpages);
43
44      printf ("\t price = %f\n",lib[i].price);
45                  }
46                  break;
47              case 3:
48                  printf("\n No of books in library : %d", keepcount);
49                  break;
50              case 4:
51                  exit (0);
52          }
53      }
54      return 0;
55  }
```

OUTPUT SCREEN:

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\BABIN> cd "c:\Users\BABIN\Desktop\Babin\" ; if ($?) { gcc librarymanagement.c -o librarymanagement } ; if ($?) { .\librarymanagement }

1. Add book information
2.Display book information
3. no of books in the library
4. Exit

Enter one of the above : 1
Enter book name = IKIGAI
Enter author name = HGarcia
Enter pages = 162
Enter price = 179

1. Add book information
2.Display book information
3. no of books in the library
4. Exit

Enter one of the above : 2
you have entered the following information
book name = IKIGAI
        author name = HGarcia
        pages = 162
        price = 179.000000

1. Add book information
2.Display book information
3. no of books in the library
4. Exit

Enter one of the above : 3

 No of books in library : 1
1. Add book information
2.Display book information
3. no of books in the library
4. Exit

Enter one of the above : 4
PS C:\Users\BABIN\Desktop\Babin>
```