BOOKSHOP INVENTORY

By –
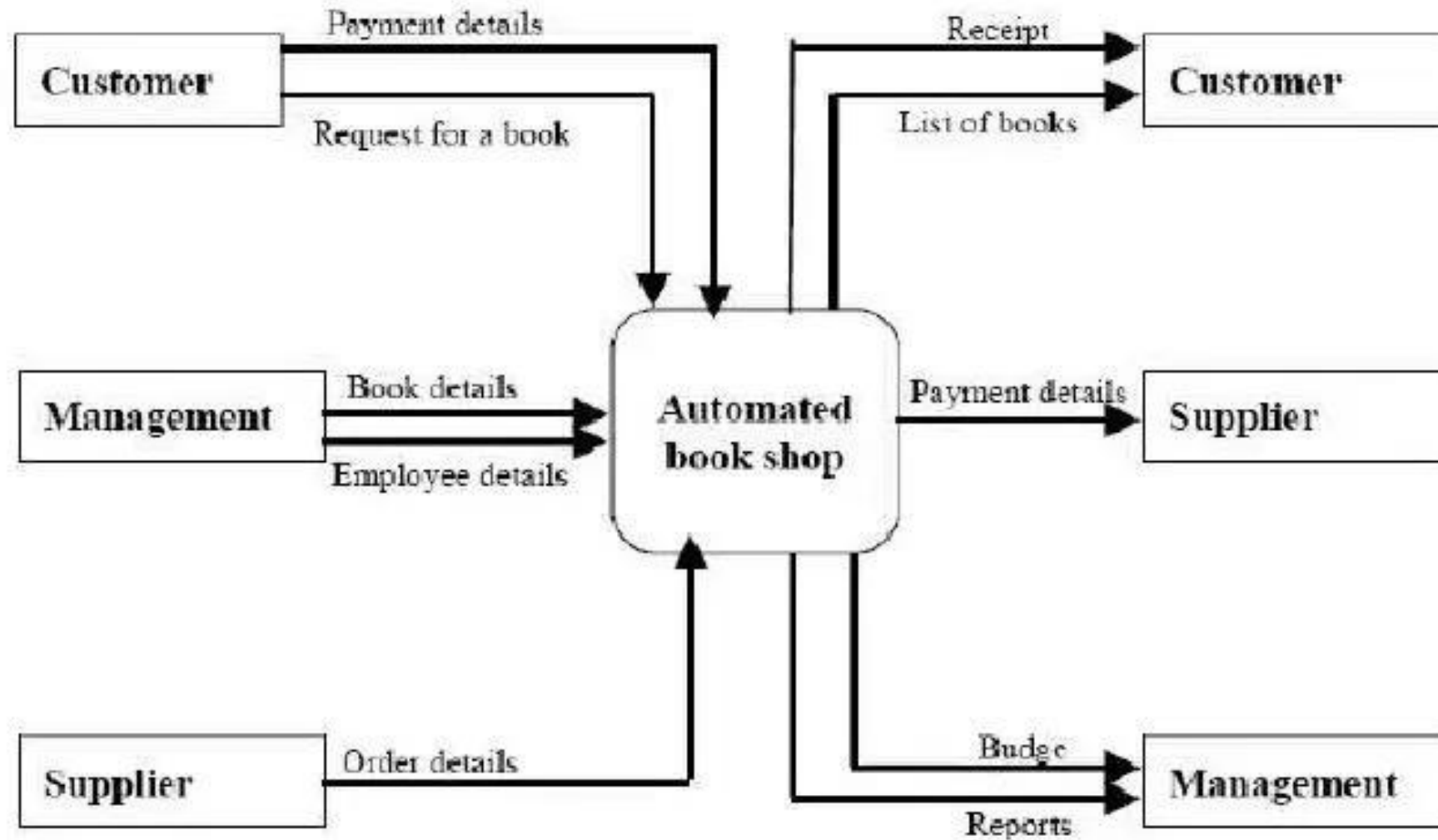
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- This program maintains the inventory of books that are being sold at the shop.
- The list includes details such as author, title, price, publisher and stock position.
- Whenever a customer wants a book, the user inputs the title and author , and the system searches the list and displays whether it is available or not
- If it is not available, an appropriatemessage is displayed.
- If it is, then the system displays the book details and requests for the number of copies required
- If the requested copies are available, the total costof the requested copies is displayed,otherwise the message "Required copies not instock" is displayed.

Context diagram
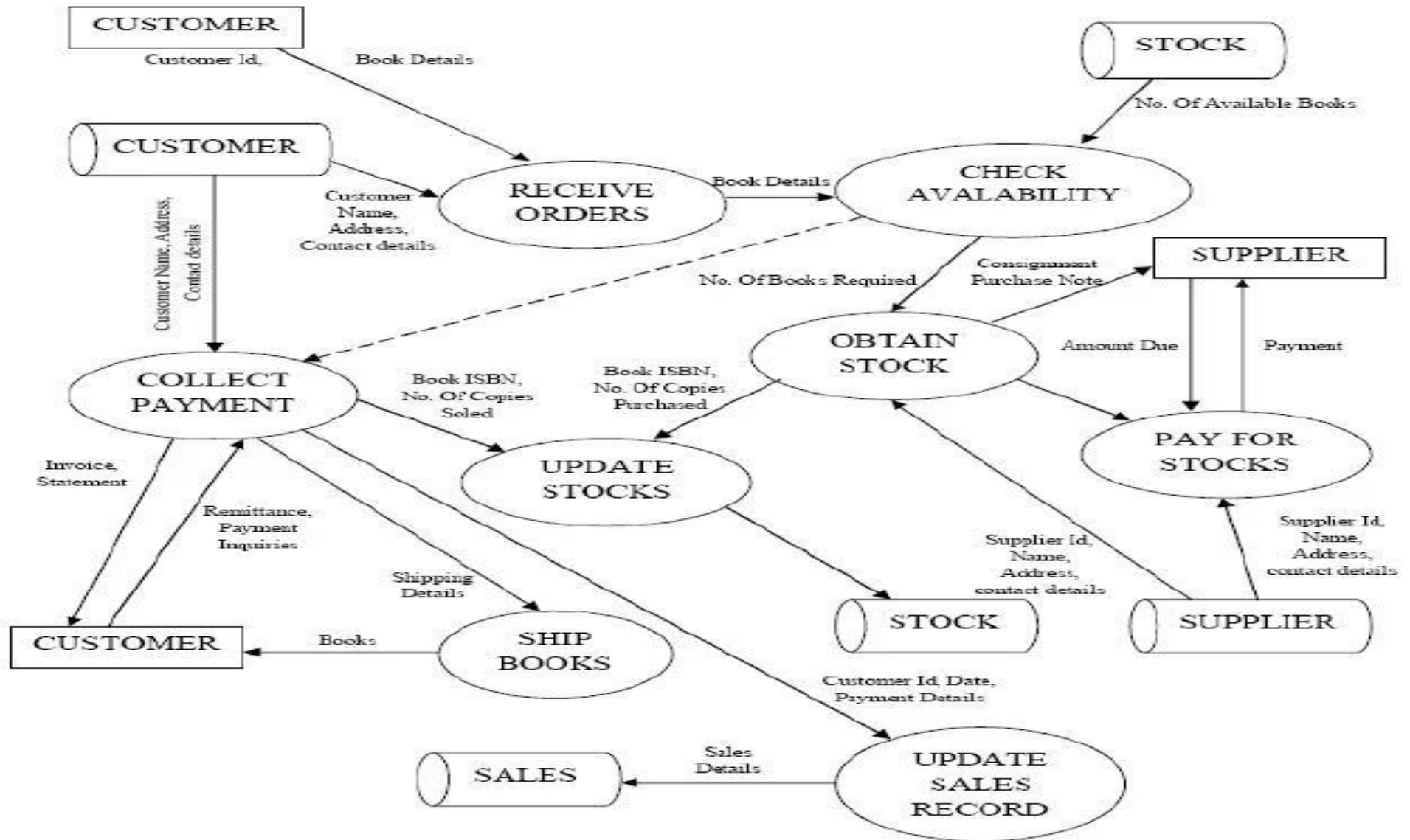
Detail Data Flow Diagram (DFD):

Figure – Detail DFD for Selling and Purchasing of Books

Source code


```cpp
#include<iostream>
#include<string.h>
#include<stdlib.h>

using namespace std;
class book {
 private:
     char *author,*title,*publisher;
     float *price;
     int *stock;
 public:
     book()  {
     author= new char[20];
     title=new char[20];
     publisher=new char[20];
     price= new float;
     stock=new int;
     }
     void feeddata();
     void editdata();
     void showdata();
     int search(char[],char[]);
     void buybook();

};

void book::feeddata()  {
     cin.ignore();
     cout<<"\nEnter Author Name: ";       cin.getline(author,20);
     cout<<"Enter Title Name: ";        cin.getline(title,20);
     cout<<"Enter Publisher Name: ";      cin.getline(publisher,20);
```

Start here | book.cpp

```cpp
31          cout<<"\nEnter Author Name: ";        cin.getline(author,20);
32          cout<<"Enter Title Name: ";        cin.getline(title,20);
33          cout<<"Enter Publisher Name: ";        cin.getline(publisher,20);
34          cout<<"Enter Price: ";        cin>>*price;
35          cout<<"Enter Stock Position: ";        cin>>*stock;
36
37      }
38
39  void book::editdata()     {
40
41          cout<<"\nEnter Author Name: ";        cin.getline(author,20);
42          cout<<"Enter Title Name: ";        cin.getline(title,20);
43          cout<<"Enter Publisher Name: ";        cin.getline(publisher,20);
44          cout<<"Enter Price: ";        cin>>*price;
45          cout<<"Enter Stock Position: ";        cin>>*stock;
46
47      }
48
49  void book::showdata()     {
50          cout<<"\nAuthor Name: "<<author;
51          cout<<"\nTitle Name: "<<title;
52          cout<<"\nPublisher Name: "<<publisher;
53          cout<<"\nPrice: "<<*price;
54          cout<<"\nStock Position: "<<*stock;
55
56      }
57
58  int book::search(char tbuy[20],char abuy[20] )    {
59          if(strcmp(tbuy,title)==0 && strcmp(abuy,author)==0)
60              return 1;
61          else return 0;
62
63      }
```

Logs & others

Code::Blocks | Search results | Cccc | Build log | **Build messages** | CppCheck/Vera++ | CppCheck/Vera++ messages | Cscope | Debugger | DoxyBlocks | Fortran info | Closed files list | Thre

File	Line	Message
		=== Build file: "no target" in "no project" (compiler: unknown) ===
		=== Build finished: 0 error(s), 0 warning(s) (0 minute(s), 1 second(s)) ===

File   Edit   View   Search   Project   Build   Debug   Fortran   wxSmith   Tools   Tools+   Plugins   DoxyBlocks   Settings   Help

Start here   X   **book.cpp**   X

```cpp
64
65  void book::buybook()      {
66      int count;
67      cout<<"\nEnter Number Of Books to buy: ";
68      cin>>count;
69      if(count<=*stock)      {
70          *stock=*stock-count;
71          cout<<"\nBooks Bought Sucessfully";
72          cout<<"\nAmount: Rs. "<<(*price)*count;
73      }
74      else
75          cout<<"\nRequired Copies not in Stock";
76  }
77
78  int main()   {
79      book *B[20];
80      int i=0,r,t,choice;
81      char titlebuy[20],authorbuy[20];
82      while(1)     {
83          cout<<"\n\n\t\tMENU"
84          <<"\n1. Entry of New Book"
85          <<"\n2. Buy Book"
86          <<"\n3. Search For Book"
87          <<"\n4. Edit Details Of Book"
88          <<"\n5. Exit"
89          <<"\n\nEnter your Choice: ";
90          cin>>choice;
91
92          switch(choice)   {
93              case 1: B[i] = new book;
94                  B[i]->feeddata();
95                  i++;    break;
96
```

Logs & others   X

◄ | Code::Blocks X | Search results X | Cccc X | Build log X | **Build messages** X | CppCheck/Vera++ X | CppCheck/Vera++ messages X | Cscope X | Debugger X | DoxyBlocks X | Fortran info X | Closed files list X | Thre ►

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ENG   14:09   19-07-2021

```cpp
103                          break;
104                      }
105              }
106          if(t==1)
107          cout<<"\nThis Book is Not in Stock";

109              break;
110      case 3: cin.ignore();
111          cout<<"\nEnter Title Of Book: "; cin.getline(titlebuy,20);
112          cout<<"Enter Author Of Book: ";  cin.getline(authorbuy,20);

114          for(t=0;t<i;t++)     {
115              if(B[t]->search(titlebuy,authorbuy))     {
116                  cout<<"\nBook Found Successfully";
117                  B[t]->showdata();
118                  break;
119              }
120          }
121          if(t==i)
122          cout<<"\nThis Book is Not in Stock";
123          break;

125      case 4: cin.ignore();
126          cout<<"\nEnter Title Of Book: "; cin.getline(titlebuy,20);
127          cout<<"Enter Author Of Book: ";  cin.getline(authorbuy,20);

129          for(t=0;t<i;t++)     {
130              if(B[t]->search(titlebuy,authorbuy))     {
131                  cout<<"\nBook Found Successfully";
132                  B[t]->editdata();
133                  break;
134              }
135          }
```

Logs & others   ✕

Code::Blocks ✕   🔍 Search results ✕   📄 Cccc ✕   🌐 Build log ✕   ✒ **Build messages** ✕   📄 CppCheck/Vera++ ✕   📄 CppCheck/Vera++ messages ✕   📄 Cscope ✕   🌐 Debugger ✕   📄 DoxyBlocks ✕   📄 Fortran info ✕   🔍 Closed files list ✕   Thre ▶

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File   Edit   View   Search   Project   Build   Debug   Fortran   wxSmith   Tools   Tools+   Plugins   DoxyBlocks   Settings   Help

Start here   X   **book.cpp**   X

```cpp
120                     }
121                 if(t==i)
122                 cout<<"\nThis Book is Not in Stock";
123                 break;

125             case 4: cin.ignore();
126                 cout<<"\nEnter Title Of Book: "; cin.getline(titlebuy,20);
127                 cout<<"Enter Author Of Book: ";  cin.getline(authorbuy,20);

129                 for(t=0;t<i;t++)     {
130                     if(B[t]->search(titlebuy,authorbuy))     {
131                         cout<<"\nBook Found Successfully";
132                         B[t]->editdata();
133                         break;
134                     }
135                 }
136                 if(t==i)
137                 cout<<"\nThis Book is Not in Stock";
138                 break;

140             case 5: exit(0);
141             default: cout<<"\nInvalid Choice Entered";

143             }
144         }

149     return 0;
150 }
151
```

Logs & others   X

◄ | Code::Blocks   X | Search results   X | Cccc   X | Build log   X | **Build messages**   X | CppCheck/Vera++   X | CppCheck/Vera++ messages   X | Cscope   X | Debugger   X | DoxyBlocks   X | Fortran info   X | Closed files list   X | Thre ►

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OUTPUT


```
                    MENU
1. Entry of New Book
2. Buy Book
3. Search For Book
4. Edit Details Of Book
5. Exit

Enter your Choice: 1

Enter Author Name: pratham sharma
Enter Title Name: nature
Enter Publisher Name: narendara
Enter Price: 200
Enter Stock Position: 2


                    MENU
1. Entry of New Book
2. Buy Book
3. Search For Book
4. Edit Details Of Book
5. Exit

Enter your Choice: 1

Enter Author Name: raakin
Enter Title Name: the rings
Enter Publisher Name: om prakash
Enter Price: 250
Enter Stock Position: 3


                    MENU
1. Entry of New Book
2. Buy Book
3. Search For Book
4. Edit Details Of Book
5. Exit

Enter your Choice: 2

Enter Title Of Book: nature
Enter Author Of Book: pratham sharma

Enter Number Of Books to buy: 1

Books Bought Sucessfully
Amount: Rs. 200
```

```
"C:\Users\Pratham sharma\Documents\book.exe"

5. Exit

Enter your Choice: 2

Enter Title Of Book: nature
Enter Author Of Book: pratham sharma

Enter Number Of Books to buy: 1

Books Bought Sucessfully
Amount: Rs. 200

              MENU
1. Entry of New Book
2. Buy Book
3. Search For Book
4. Edit Details Of Book
5. Exit

Enter your Choice: 3

Enter Title Of Book: the rings
Enter Author Of Book: raakin

Book Found Successfully
Author Name: raakin
Title Name: the rings
Publisher Name: om prakash
Price: 250
Stock Position: 3

              MENU
1. Entry of New Book
2. Buy Book
3. Search For Book
4. Edit Details Of Book
5. Exit

Enter your Choice: 4

Enter Title Of Book: nature
Enter Author Of Book: pratham sharma

Book Found Successfully
Enter Author Name: fahad
Enter Title Name: friends
Enter Publisher Name: din dayal
Enter Price: 220
Enter Stock Position: 2
```

```
                 MENU
1. Entry of New Book
2. Buy Book
3. Search For Book
4. Edit Details Of Book
5. Exit

Enter your Choice: 3

Enter Title Of Book: the rings
Enter Author Of Book: raakin

Book Found Successfully
Author Name: raakin
Title Name: the rings
Publisher Name: om prakash
Price: 250
Stock Position: 3

                 MENU
1. Entry of New Book
2. Buy Book
3. Search For Book
4. Edit Details Of Book
5. Exit

Enter your Choice: 4

Enter Title Of Book: nature
Enter Author Of Book: pratham sharma

Book Found Successfully
Enter Author Name: fahad
Enter Title Name: friends
Enter Publisher Name: din dayal
Enter Price: 220
Enter Stock Position: 2


                 MENU
1. Entry of New Book
2. Buy Book
3. Search For Book
4. Edit Details Of Book
5. Exit

Enter your Choice: 5

Process returned 0 (0x0)   execution time : 304.467 s
Press any key to continue.
```