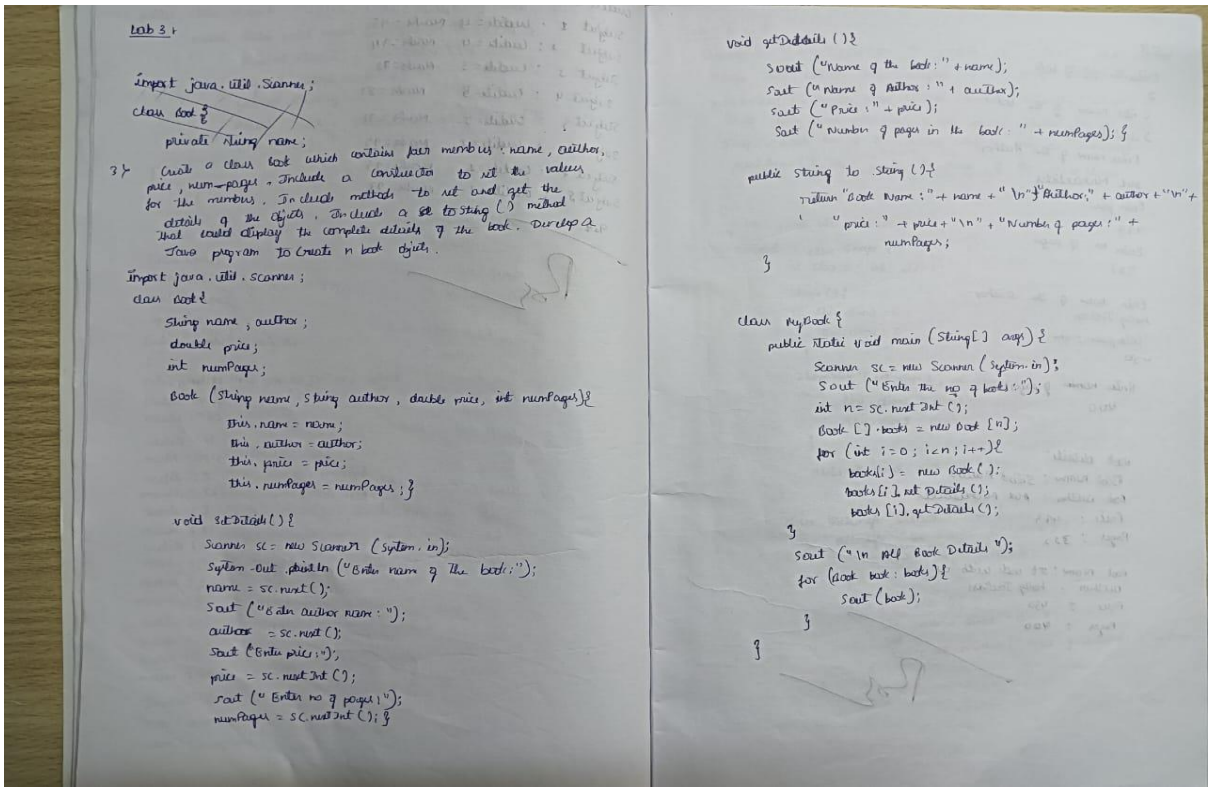
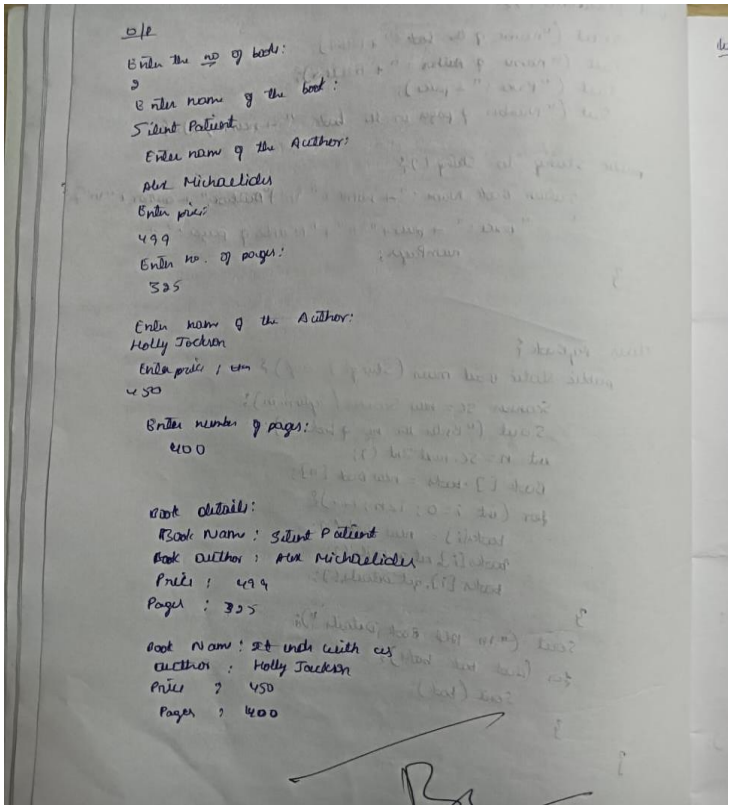
Lab 3:

3. Create a class Book which contains four members: name, author, price, num_pages. Include a constructor to set the values for the members. Include methods to set and get the details of the objects. Include a toString( ) method that could display the complete details of the book. Develop a Java program to create n book objects.



```
Lab 3 :

import java.util.Scanner;
class Book{
    private String name;
3)  Create a class book which contains four members : name, author,
    price, num_pages. Include a constructor to set the values
    for the members. Include methods to set and get the
    details of the objects. Include a toString() method
    that could display the complete details of the book. Develop a
    Java program to create n book objects.
import java.util.Scanner;
class Book{
    String name, author;
    double price;
    int numPages;
    Book(String name, String author, double price, int numPages){
        this.name = name;
        this.author = author;
        this.price = price;
        this.numPages = numPages;}

    void setDetails(){
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter name of the book:");
        name = sc.next();
        Sout("Enter author name:");
        author = sc.next();
        Sout("Enter price:");
        price = sc.nextInt();
        Sout("Enter no of pages:");
        numPages = sc.nextInt();}

void getDetails(){
    Sout("Name of the book:" + name);
    Sout("Name of Author:" + author);
    Sout("Price:" + price);
    Sout("Number of pages in the book:" + numPages);}

public String toString(){
    return "Book Name:" + name + "\n" + "Author," + author + "\n" +
    "price:" + price + "\n" + "Number of pages:" +
    numPages;
}

class MyBook{
    public static void main(String[] args){
        Scanner sc = new Scanner(System.in);
        Sout("Enter the no of books:");
        int n = sc.nextInt();
        Book[] books = new Book[n];
        for(int i=0; i<n; i++){
            books[i] = new Book();
            books[i].setDetails();
            books[i].getDetails();
        }
        Sout("\n All Book Details");
        for(Book book:books){
            Sout(book);
        }
}
```



```
o/p
Enter the no of books:
2
Enter name of the book:
Silent Patient
Enter name of the Author:
Alex Michaelides
Enter price:
499
Enter no. of pages:
325

Enter name of the Author:
Holly Jackson
Enter price / cm
450
Enter number of pages:
400

Book details:
Book Name: Silent Patient
Book Author: Alex Michaelides
Price: 499
Pages: 325

Book Name: It ends with us
Author: Holly Jackson
Price: 450
Pages: 400
```

Code:

```
import java.util.Scanner;
class Book{
    String name,author;
    double price;
    int numPages;
    Book(String name,String author,double price,int numPages){
        this.name=name;
        this.author=author;
        this.price=price;
        this.numPages=numPages;
    }
    Book() {
        this.name = "";
        this.author = "";
        this.price = 0.0;
        this.numPages = 0;
    }

    void setDetails(){
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the name of the book:");
        name=sc.nextLine();
        System.out.println("Enter author name:");
        author=sc.nextLine();
        System.out.println("Enter price:");
        price=sc.nextDouble();
        System.out.println("Enter number of pages:");
        numPages=sc.nextInt();
        sc.nextLine();
```

```
    }
    void getDetails(){
        System.out.println("Name of the book:"+name);
        System.out.println("Name of the author:"+author);
        System.out.println("Price:"+price);
        System.out.println("Number of pages in the book:"+numPages);
    }
    public String toString(){
        return "Book Name:"+name+"\nAuthor:"+author+"\nPrice:"+price+"\nNumber of pages:"+numPages;
    }
}
class MyBook{
        public static void main(String[] args){
            Scanner sc=new Scanner(System.in);
            System.out.println("Enter the number of books:");
            int n=sc.nextInt();
            sc.nextLine();

            Book[] books=new Book[n];
            for(int i=0;i<n;i++){
                books[i]=new Book();
                books[i].setDetails();
                books[i].getDetails();
            }
            System.out.println("All book details:");
            for(Book book:books){
            System.out.println(book);
        }
    }
}
```

Output:

```
D:\Java_Lab_Programs>javac MyBook.java

D:\Java_Lab_Programs>java MyBook
Enter the number of books:
2
Enter the name of the book:
Harry Potter
Enter author name:
J K Rowling
Enter price:
1500
Enter number of pages:
1200
Name of the book:Harry Potter
Name of the author:J K Rowling
Price:1500.0
Number of pages in the book:1200
Enter the name of the book:
Silent Patient
Enter author name:
Alex Michaelides
Enter price:
350
Enter number of pages:
287
Name of the book:Silent Patient
Name of the author:Alex Michaelides
Price:350.0
Number of pages in the book:287
All book details:
Book Name:Harry Potter
Author:J K Rowling
Price:1500.0
Number of pages:1200
Book Name:Silent Patient
Author:Alex Michaelides
Price:350.0
Number of pages:287

D:\Java_Lab_Programs>
```