1.Book schema////in different package

**package** sample2P;

**public** **class** BookSchema {

**private** **int** bookId;

**private** String bookname;

**private** **double** bookPrice;

**public** BookSchema(){}

**public** BookSchema(**int** bookId, String bookname, **double** bookPrice)

{

**this**.bookId=bookId;

**this**.bookname=bookname;

**this**.bookPrice=bookPrice;

}

**public** **int** getbookId()

{

**return** bookId;

}

**public** **void** setbookId()

{

**this**.bookId=bookId;

}

**public** String getbookName()

{

**return** bookname;

}

**public** **void** setbookName()

{

**this**.bookname=bookname;

}

**public** **double** getbookPrice()

{

**return** bookPrice;

}

**public** **void** setbookPrice()

{

**this**.bookPrice=bookPrice;

}

**public** String toString(){

**return** "Book [bookId=" +bookId+"Book name"+bookname+"bookPrice="+bookPrice+"]";

}

}

2.Book Exception ////in different package

**package** BookException;

**public** **class** bookException **extends** Exception{

**public** bookException(String message)

{

**super**(message);

}

}

5.Book ui /////different package

**package** BookDataValidator;

**import** java.util.\*;

**import** bookDataValidation.BookDataValidation;

**import** bookDataValidation.BookcollectInformation;

**import** sample2P.\*;

**import** BookException.\*;

**public** **class** BookUI

{

**private** **static** **final** String ***BookDataValidatior*** = **null**;

**static** Scanner *sc*=**new** Scanner(System.***in***);

**static** BookcollectInformation *collectionhelper*=**null**;

@SuppressWarnings("static-access")

**public** **static** **void** main(String[] args)

{

**int** choice=0;

*collectionhelper*=**new** BookcollectInformation();

**while**(**true**)

{

System.***out***.println("1:add new book\n"+"2.Find total count of books \n'"+"3.exit");

System.***out***.println("Enter Your Choice");

choice=*sc*.nextInt();

**switch**(choice)

{

**case** 1:*enterNewbookDetails*();**break**;

**case** 2:*collectionhelper*.*displayBookCount*();**break**;

**default** :System.*exit*(0);

}

}

}

**private** **static** **void** enterNewbookDetails()

{

System.***out***.println("How many new books?");

**int** bcount=*sc*.nextInt();

**while**(bcount!=0)

{

System.***out***.println("Enter bookid");

String bookId=*sc*.next();

**try** {

**if**(BookDataValidation.*ValidatebookId*(bookId))

System.***out***.println("Enter book name ");

String bookname=*sc*.next();

**if**(BookDataValidation.*ValidatebookName*(bookname))

{

System.***out***.println("enter price :");

String bookPrice=*sc*.next();

**if**(BookDataValidation.*ValidatebookPrice*(bookPrice))

{

BookSchema book=**new** BookSchema(Integer.*parseInt*(bookId),bookname,Double.*parseDouble*(bookPrice));

*collectionhelper*.addNewBookDetails(book);

}

}

}

**catch** (Exception e)

{

System.***out***.println(e.getMessage());

}

bcount--;

}

}

}

4.Book collections ,,…////////…and book data validation in same package

**package** bookDataValidation;

**import** java.util.Iterator;

**import** java.util.ArrayList;

**import** sample2P.BookSchema;

**public** **class** BookcollectInformation {

**private** **static** ArrayList<BookSchema>*bookList*=**null**;

**static**

{

*bookList*=**new** ArrayList<BookSchema>();

//creating an object of BookSchema class

BookSchema b1=**new** BookSchema(111,"See onto the sea",2000.00);

BookSchema b2=**new** BookSchema(112,"See onto the sekhar",3000.00);

BookSchema b3=**new** BookSchema(113,"See onto the sekhar soul",3500.00);

//adding above book details into collection

*bookList*.add(b1);

*bookList*.add(b2);

*bookList*.add(b3);

}

//public Book collection helper

//add new book in an arrayList

**public** **void** addNewBookDetails(BookSchema book)

{

*bookList*.add(book);

}

**public** **static** ArrayList<BookSchema> getbookList(){

**return** *bookList*;

}

**public** **static** **void** setbookList (ArrayList<BookSchema>bookList)

{

BookcollectInformation.*bookList*=bookList;

}

//fetch the book details

**public** **static** **void** displayBookCount()

{

//System.out.println(bookList.size());

Iterator<BookSchema> bookIt=*bookList*.iterator();

BookSchema tempBook=**null**;

**int** totalCount=0;

**while**(bookIt.hasNext())

{

totalCount++;

tempBook=bookIt.next();

System.***out***.println(tempBook);

}

System.***out***.println("Tootal count of books"+totalCount);

}

}

3.book data validation,,…////////…and Book collections in same package

package bookDataValidation;

import java.util.regex.Pattern;

import BookException.bookException;

public class BookDataValidation

{

public static boolean ValidatebookId(String bookId) throws bookException

{

String Idpattern="\\d{3}";

if(Pattern.matches(Idpattern,bookId))

{

return true;

}

else

{

throw new bookException("enter valid id");

}

}

public static boolean ValidatebookName(String bookname) throws bookException

{

String Namepattern="[A-Za-z]{6,20}";

if(Pattern.matches(Namepattern, bookname))

{

return true;

}

else

{

throw new bookException("enter valid name");

}

}

//information about book price

public static boolean ValidatebookPrice(String bookPrice) throws bookException

{

String Pricepattern="\\d{2,4}.?[0-9]{2}$";

if(Pattern.matches(Pricepattern, bookPrice))

{

return true;

}

else

{

throw new bookException("enter valid price");

}

}

}