**=====================================================================================**

**package** libarian;

**import** java.util.Scanner;

**public** **class** main {

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

bookTypes books[];

books = **new** bookTypes[100];

Scanner input = **new** Scanner(System.***in***);

**int** bookNum = 5; // USER CAN CHANGE THE NUMBERS OF BOOKS AND INFOS CAN BE ENTER.

**int** memberNum = 5; //USER CAN CHANGE THE NUMBERS OF MEMBERS AND INFOS CAN BE ENTER

**for** (**int** i = 0; i < bookNum; i++) {

books[i] = **new** bookTypes();

//\*\*\*\*\*\*\*\*\*\*\*\* Entering title(s) \*\*\*\*\*\*\*\*\*\*\*\*\*\*//

System.***out***.print("Enter the book title for " );

System.***out***.println("Book " + i );

String title = input.nextLine();

books[i].setTitle(title); //user enter their titles

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*//

//\*\*\*\*\*\*\*\*\*\*\*\* Entering author(s) \*\*\*\*\*\*\*\*\*\*\*\*\*//

System.***out***.println("How many author(s) wrote this book? (maximum 4) ");

**int** numAuth = input.nextInt(); //user choice of entering how many authors is in the book

System.***out***.println("Enter the author(s). ");

**for**(**int** j=0 ; j <=numAuth ; j++) {

String auth = input.nextLine();

books[i].setAuthor(auth);

}

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*//

//\*\*\*\*\*\*\*\*\*\*\*\* Entering publisher \*\*\*\*\*\*\*\*\*\*\*\*\*//

System.***out***.print("Enter the book publisher " );

System.***out***.println("Publisher " + i );

String publ = input.nextLine();

books[i].setPub(publ);

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*//

books[i].setCopies(*getRandomInteger*(100, 1));

books[i].setISBN(1231231231 + i \* 50);

books[i].setPrice(100.00 + .99 \* i);

books[i].setYear(*getRandomInteger*(2019, 1900));

}

**for** (**int** i = 0; i < memberNum; i++) {

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

books[i].showTitle();

books[i].showAuthor();

books[i].showPub();

books[i].showYear();

books[i].showISBN();

books[i].showCopies();

books[i].showPrice();

}

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

memberType people[];

people = **new** memberType[100];

**for** (**int** i = 0; i < 5; i++) {

people[i] = **new** memberType();

System.***out***.println("Enter the member's name. "+ i);

String personName = input.nextLine();

people[i].setPerson(personName);

System.***out***.println("Enter the member's ID. (ex. xxx-xx-xxxx) " +i);

String personID = input.nextLine();

people[i].setID(personID);

people[i].setBB( *getRandomInteger*(10, 1));

people[i].setSpent( *getRandomInteger*(10, 1));

}

**for** (**int** i = 0; i < memberNum; i++) {

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

people[i].showName();

people[i].showID();

people[i].showBB();

people[i].showSpent();

}

}

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

//Name: random int gen

//pre: getting the class calls from a range of max to min

//post: with the algorthim shown below it will output a random

//number from the range of max to min

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**public** **static** **int** getRandomInteger(**int** maximum, **int** minimum){

**return** ((**int**) (Math.*random*()\*(maximum - minimum))) + minimum;

}

}

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**package** libarian;

**public** **class** memberType {

**private** String person;

**private** String ID;

**private** **int** booksBought;

**private** **double** spent;

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

//memberType constructor

//pre: none.

//post: intialize all variables to 0 and all string to null.

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**public** memberType(){

person="";

ID ="";

booksBought=0;

spent = 0.0;

}

//////////////////////////////////////////

**public** **void** setPerson(String name) {

person = name;

}

**public** String getPerson() {

**return** person;

}

//display

**public** **void** showName() {

System.***out***.print("Name: ");

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

}

//////////////////////////////////////////

**public** **void** setID(String nums) {

ID = nums;

}

**public** String getID() {

**return** ID;

}

**public** **void** showID() {

System.***out***.print("ID: ");

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

}

//////////////////////////////////////////

**public** **void** setBB(**int** books) {

booksBought = books;

}

**public** **int** getBB() {

**return** booksBought;

}

**public** **void** showBB() {

System.***out***.print("Books bought: ");

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

}

//////////////////////////////////////////

**public** **void** setSpent(**int** spend) {

spent = spend;

}

**public** **double** getSpent() {

**return** spent;

}

**public** **void** showSpent() {

System.***out***.print("Spent: $");

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

}

}

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=====================================================================================

**package** libarian;

**public** **class** bookTypes {

**private** String title;

**private** String[] authors;

**private** String publisher;

**private** **int** ISBN;

**private** **double** price;

**private** **int** copies;

**private** **int** authorsNum;

**private** **int** year;

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

//bookType constructor

//pre: none.

//post: intialize all variables to 0 and all string to null.

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**public** bookTypes() {

title = "";

copies = 0;

price = 0;

authorsNum = 0;

ISBN = 0;

authors = **new** String []{"","","",""};

publisher = "";

year = 0;

}

//setter for title

**public** **void** setTitle(String myTitle) {

title = myTitle;

}

//getter for title

**public** String getTitle() {

**return** title;

}

//intialize author numbers = 0

**public** **void** clearAuthors() {

authorsNum = 0;

}

//setter for author

**public** **void** setAuthor(String myAuthor) {

**if** (authorsNum < 4) {

authors[authorsNum] = myAuthor;

authorsNum++; //loops in how many authors thr user called

}

}

//getter for author

**public** String getAuthor(**int** num) {

**if** (authorsNum < num) {

**return** authors[num - 1];

} **else**

**return** "";

}

//setter for ISBN

**public** **void** setISBN(**int** myISBN) {

ISBN = myISBN;

}

//getter for ISBN

**public** **int** getISBN() {

**return** ISBN;

}

//setter for publisher

**public** **void** setPub(String myPub) {

publisher = myPub;

}

//getter for publisher

**public** String getPub() {

**return** publisher;

}

//setter for years

**public** **void** setYear(**int** num) {

year = num;

}

//getter for years

**public** **int** getYear() {

**return** year;

}

//setter for copies

**public** **void** setCopies(**int** num) {

**if** (num >= 0) //check for negative copies

copies = num;

}

//getter for copies

**public** **int** getCopies() {

**return** copies;

}

//setter for price

**public** **void** setPrice(**double** num) {

**if** (num >= 0)// check for user input neg $$$

price = num;

}

//getter for price

**public** **double** getPrice() {

**return** price;

}

//\*\*\*\*\*\*\*\*\*\*\*\*\*Displays \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*//

**public** **void** showTitle() {

System.***out***.print("Title: ");

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

}

**public** **void** showAuthor() {

System.***out***.print("Author(s): ");

System.***out***.println(authorsNum-1);

**for** (**int** i = 0; i < authorsNum; i++) {

System.***out***.println(authors[i]);

}

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

}

**public** **void** showPub() {

System.***out***.print("Publisher: ");

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

}

**public** **void** showYear() {

System.***out***.print("Year of Publication: ");

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

}

**public** **void** showISBN() {

System.***out***.print("ISBN: ");

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

}

**public** **void** showCopies() {

System.***out***.print("Copies Avaliable: ");

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

}

**public** **void** showPrice() {

System.***out***.print("Price: ");

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

}

**public** **boolean** compareTitle(String myTitle) {

**return** (title == myTitle);

}

}

=====================================================================================

**Books: 2**

**Members: 5**



