Project 3

LibraryTestOfJTableAndJTree.java

Yuji Shimojo

CMSC 335

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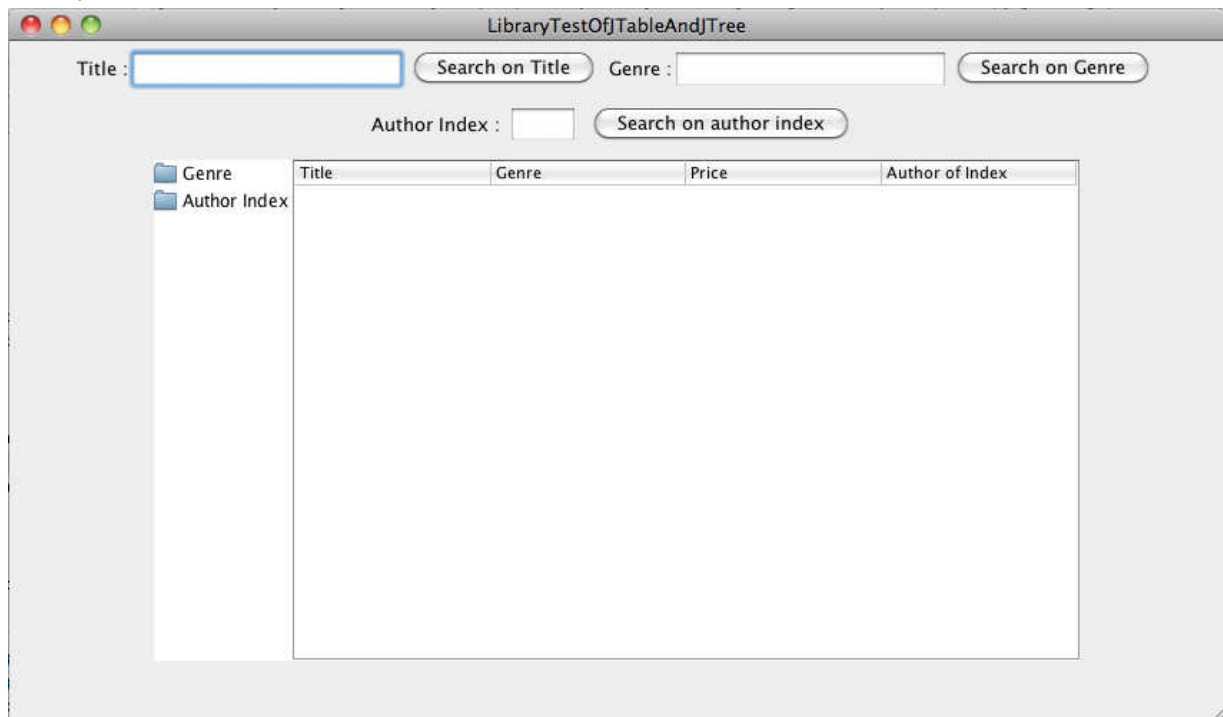
1. Programs

2. Execution Result

LibraryTestOfJTableAndJTree

3. Class Diagram
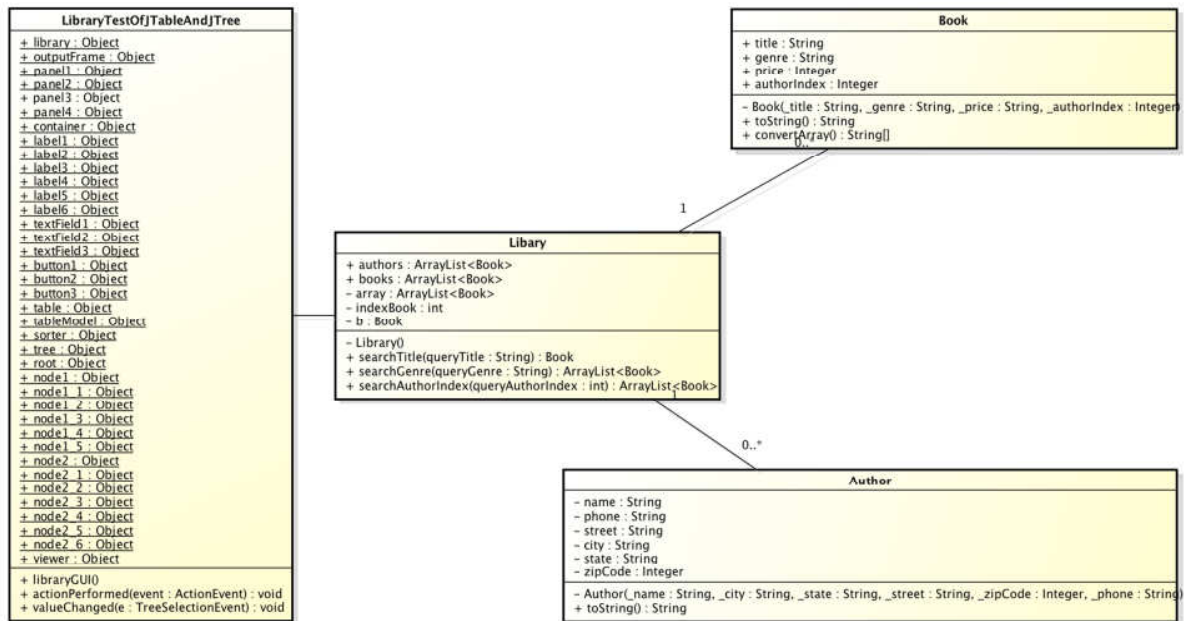
4. Operating Instructions & Test Cases

4.1. Search for a book by title
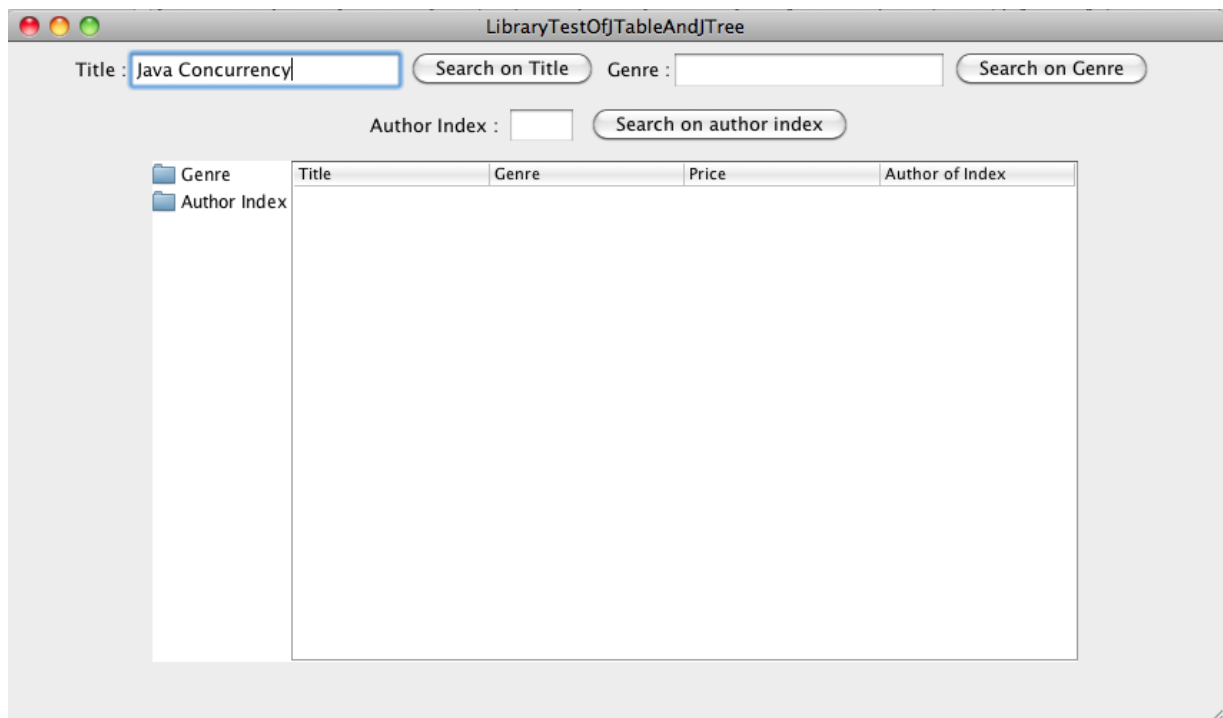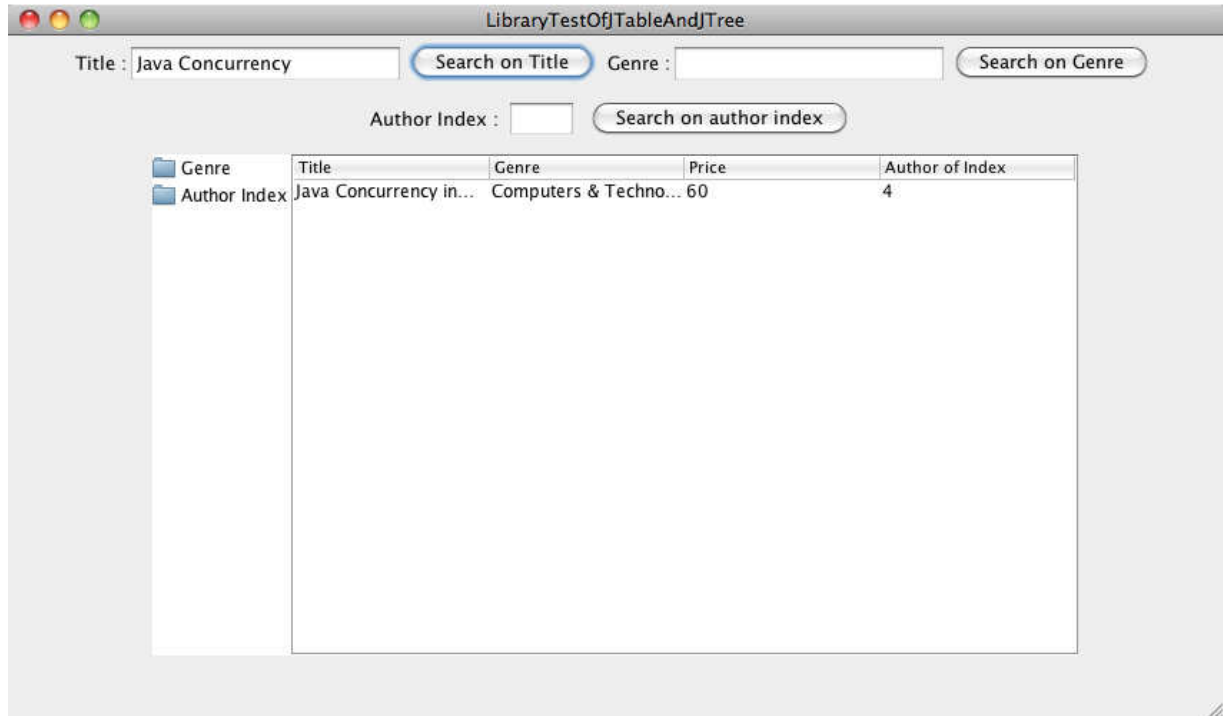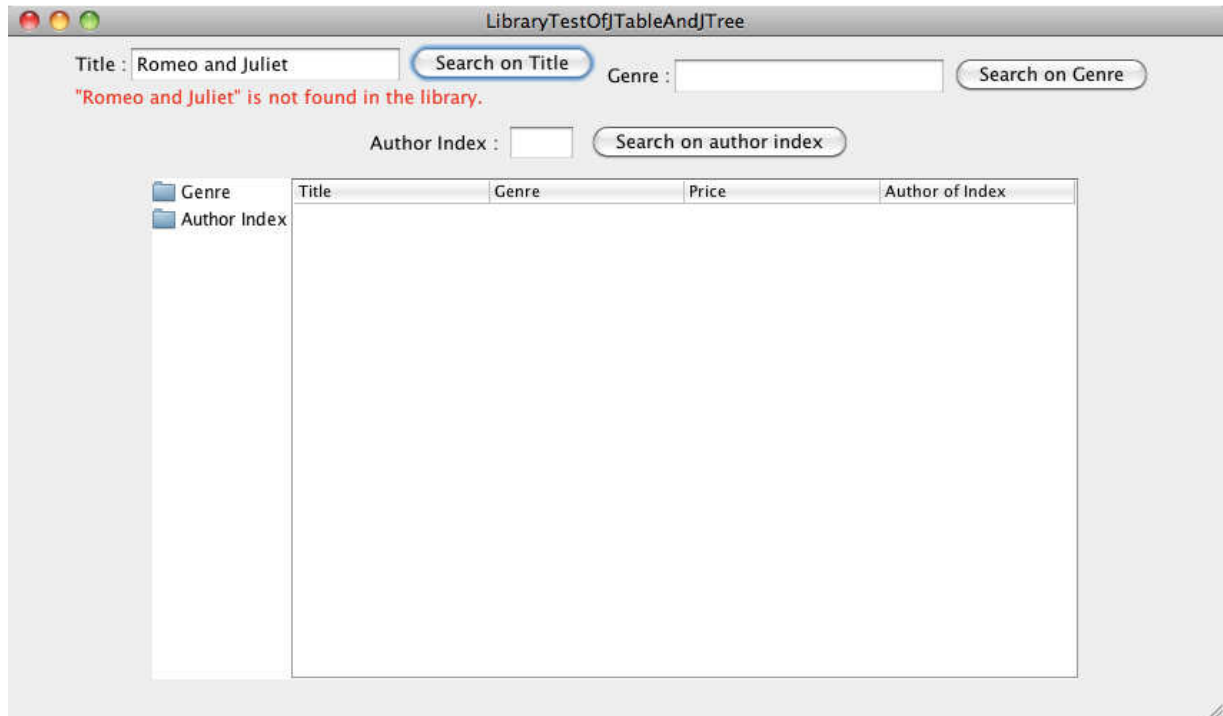
1) Enter your keywords of the book title you want to find in the top left text field
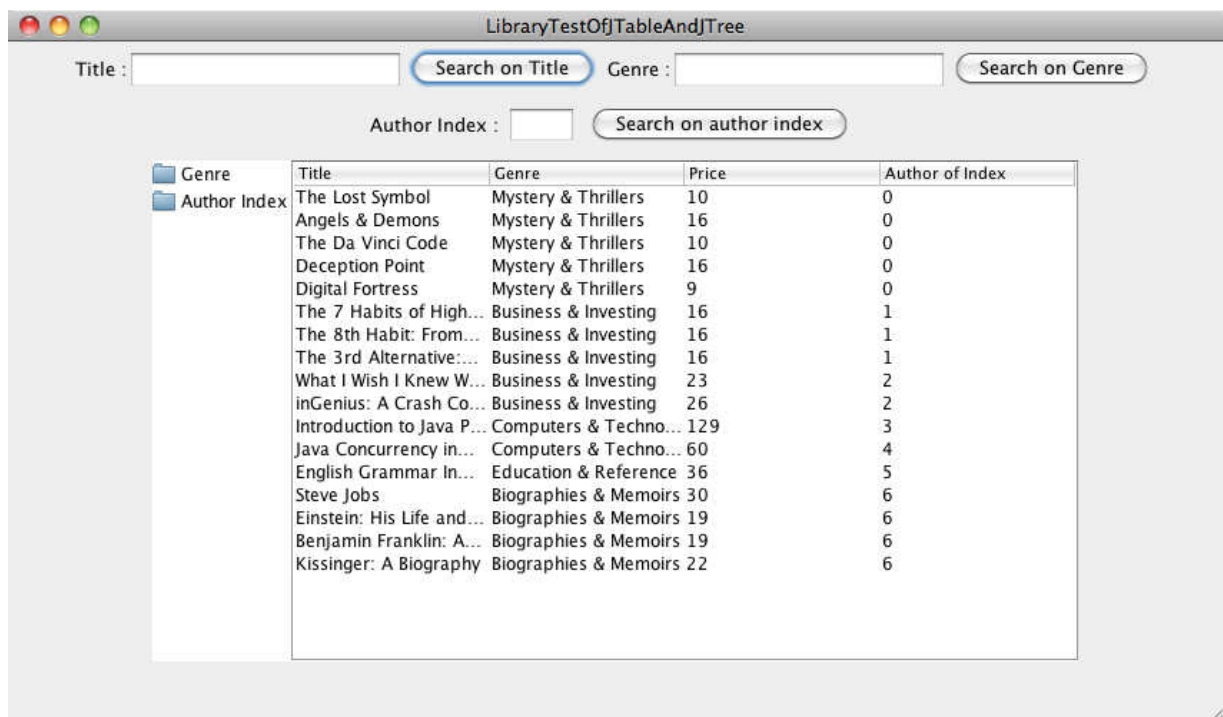
2) Click on "Search on Title" button. Then, you get the result of your search in the bottom right table.

3) When the keyword you entered is not found in the library, you get an error message "Your search keyword is not found in the library." below the text field.

4) When you enter a null character, you get all of the books in the library in the table.

4.2. Search for books by genre

1) Enter your keywords of the book genre you want to find in the top right text field.

2) Click on "Search on Genre" button. Then, you get the result of your search in the table.

3) When the keyword you entered is not found in the library, you get an error message "Your search keyword is not found in the library." below the text field.
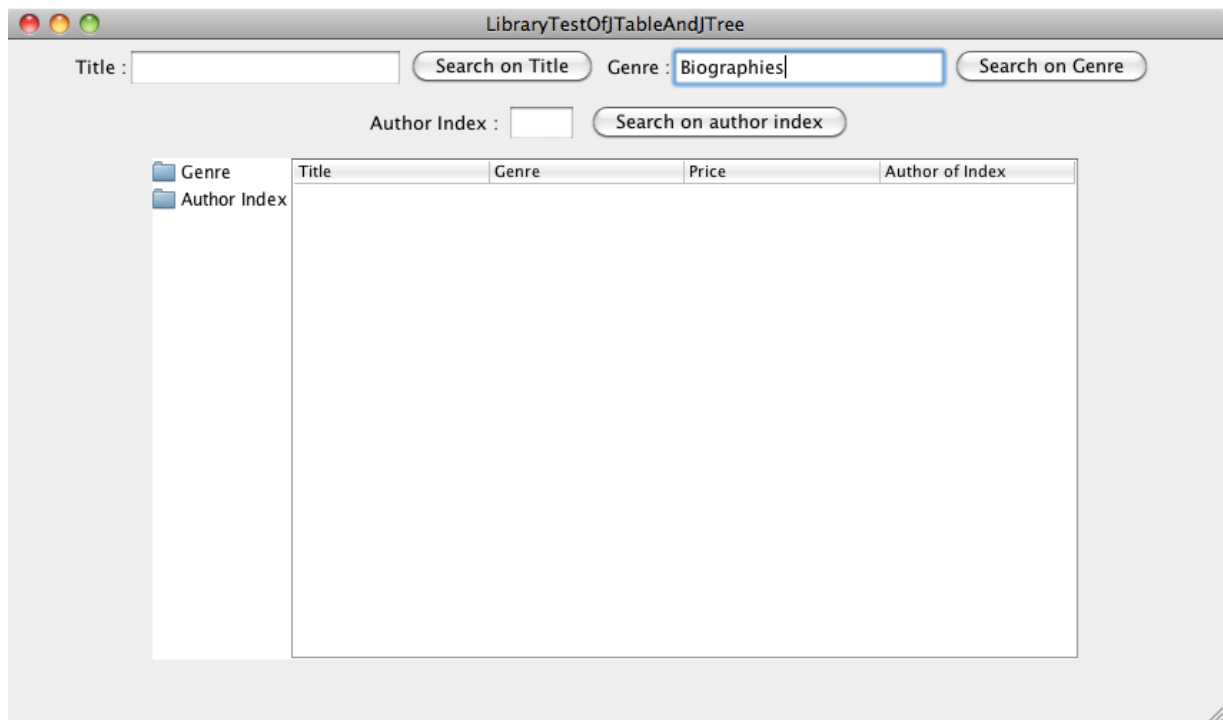

4) When you enter a null character, you get all of the books in the library in the table.
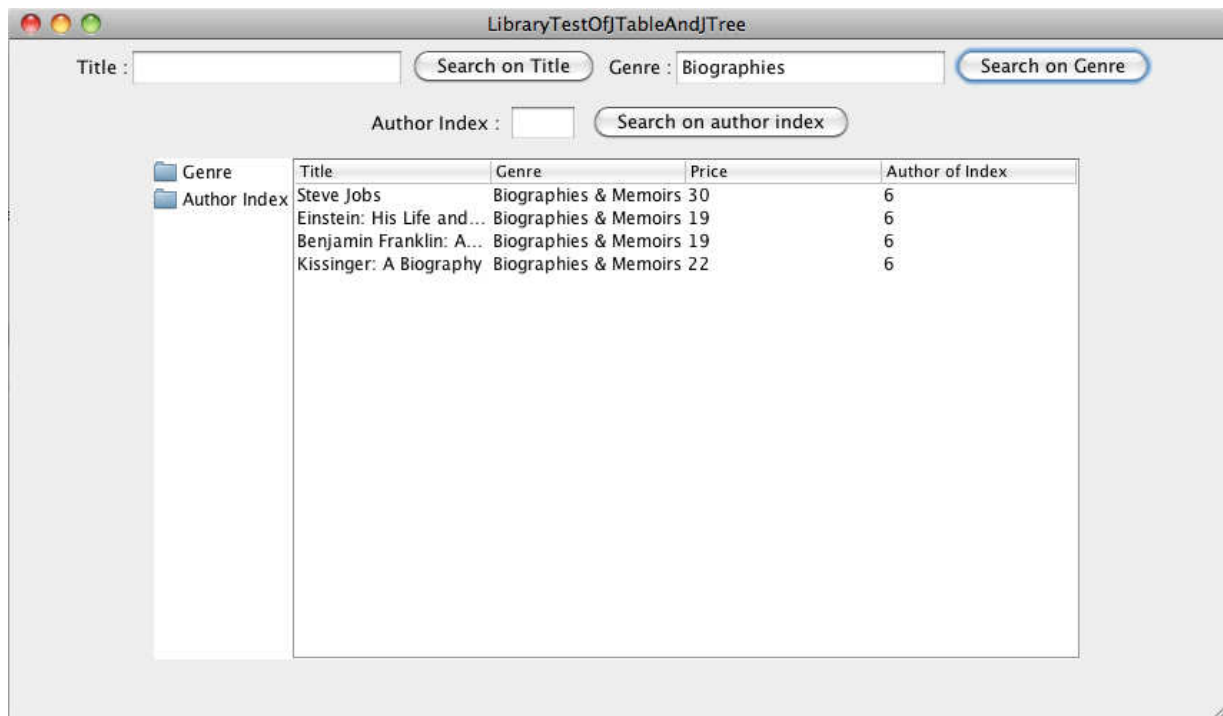
4.3. Search for books by author index

1) Enter the number of the author index you want to find in the center text field.

2) Click on "Search on author index" button. Then, you get the result of your search in the table.

3) When the number you entered is not found in the library, you get an error message "Your search number is not found in the library." next to the text field.

4) When you enter a null character, you get all of the books in the library in the table.
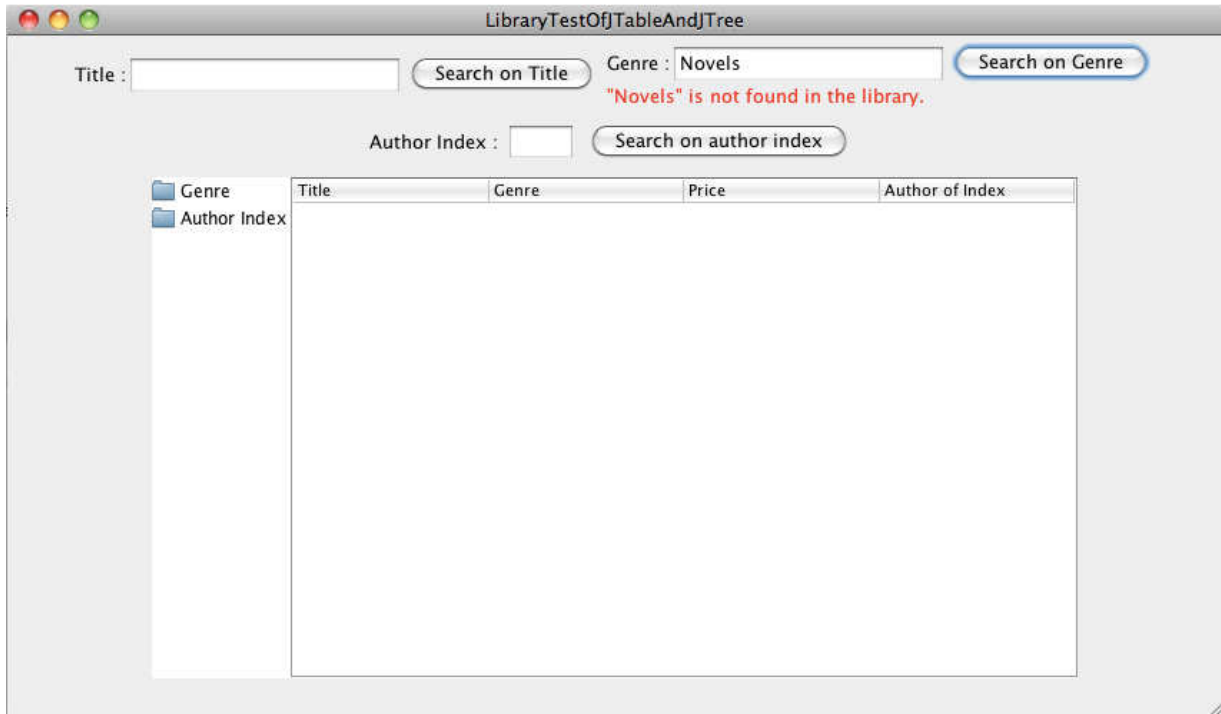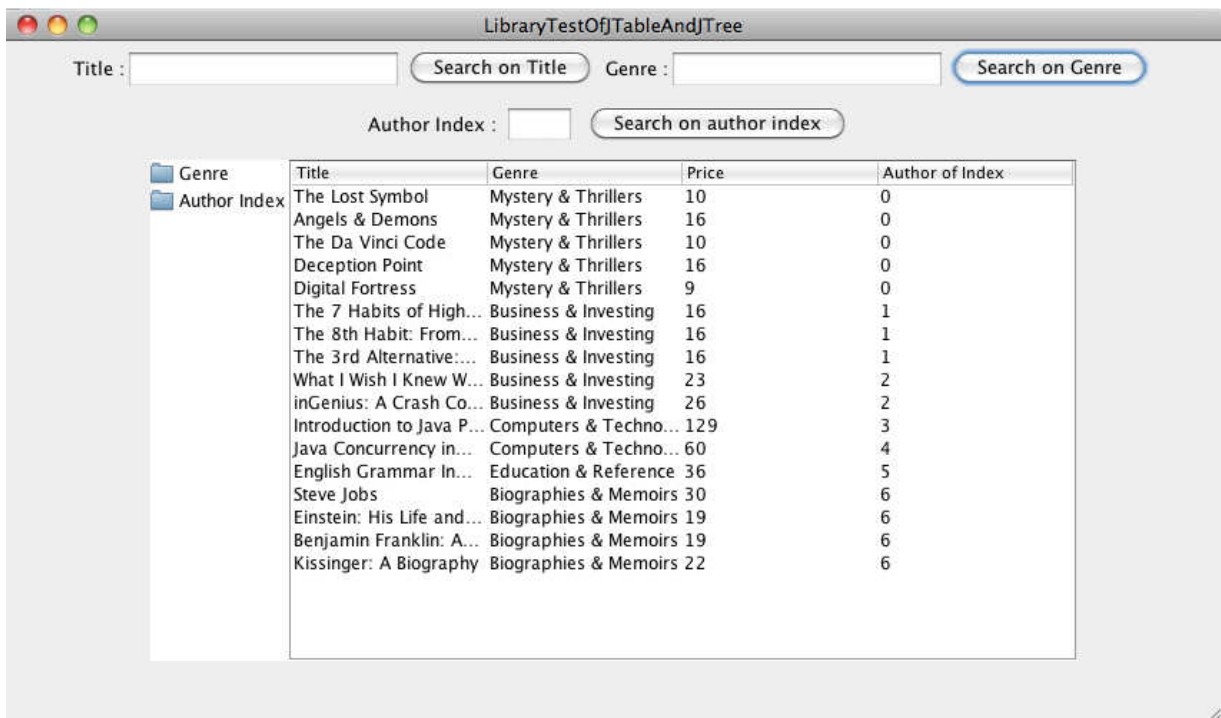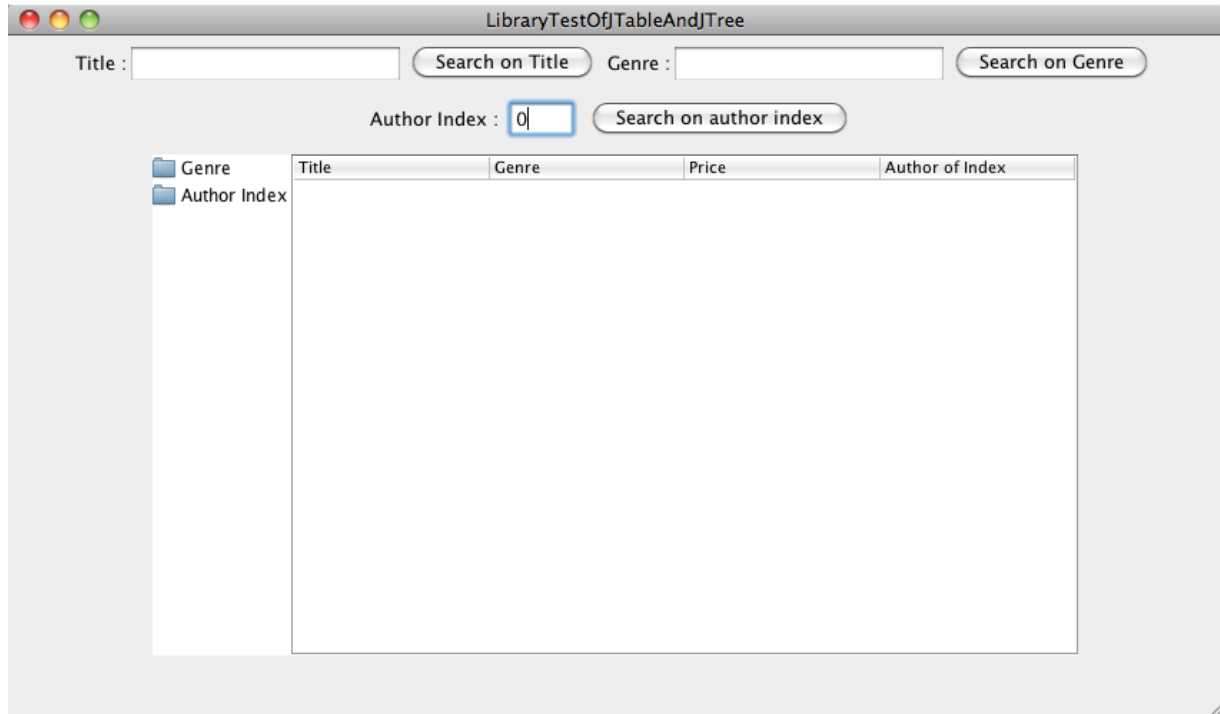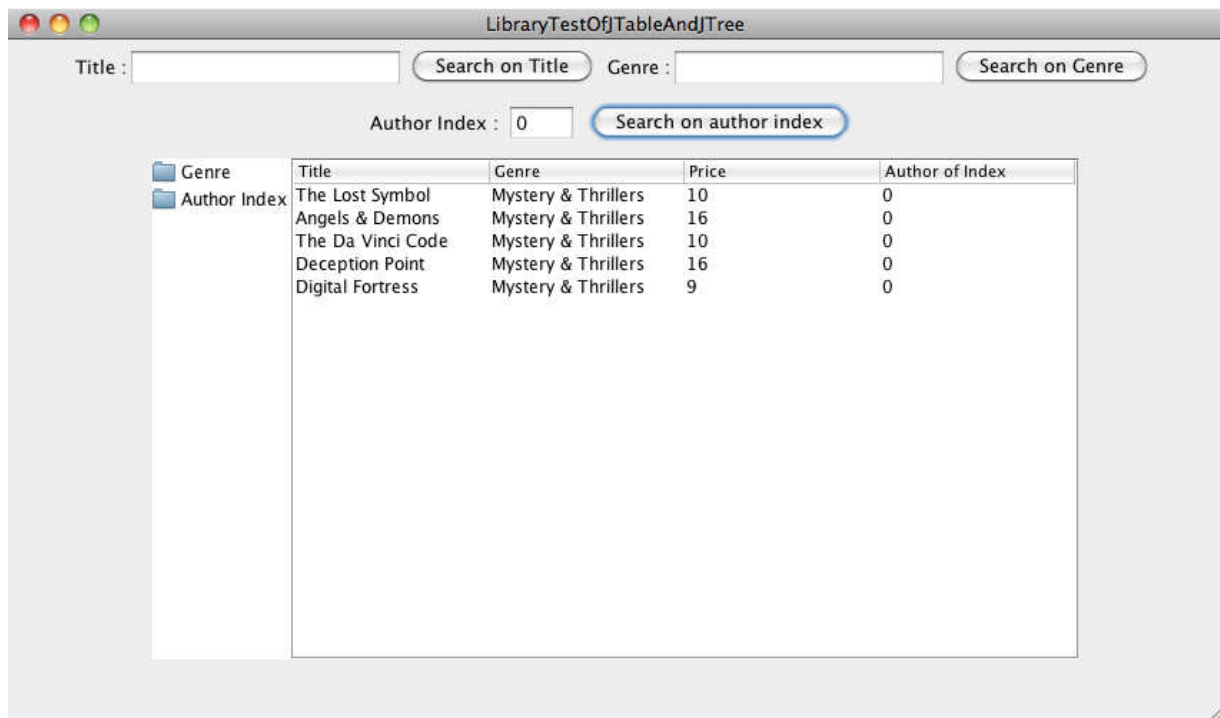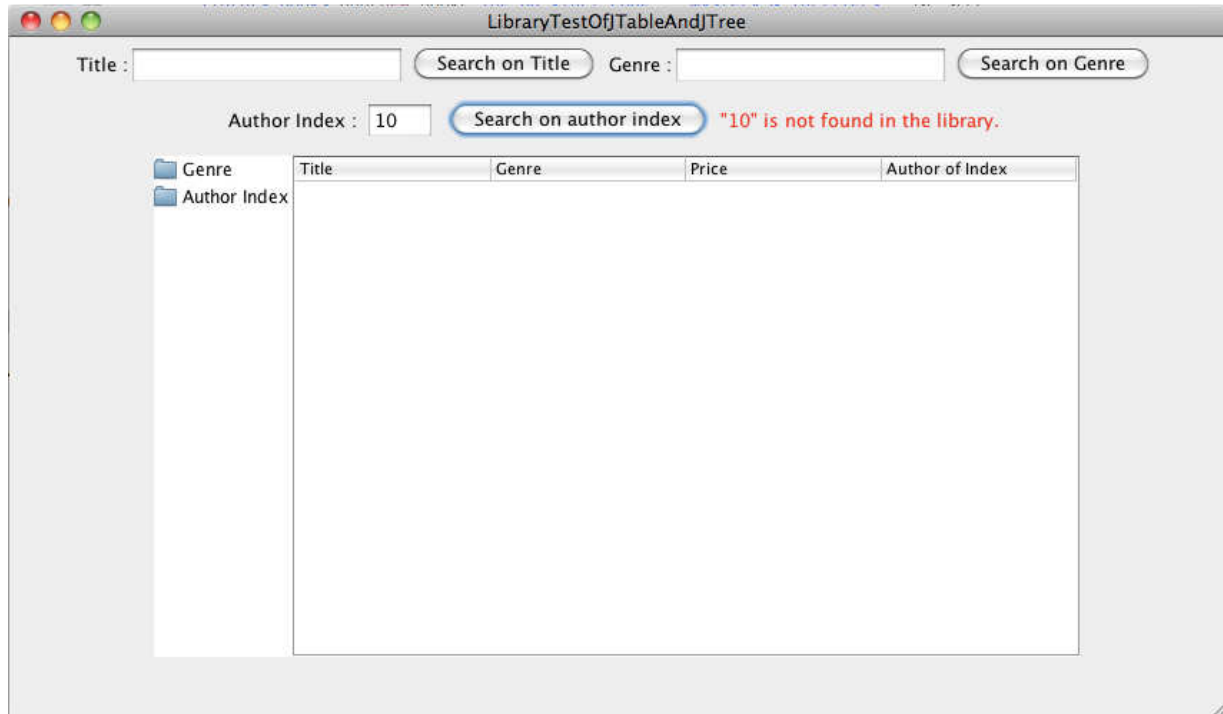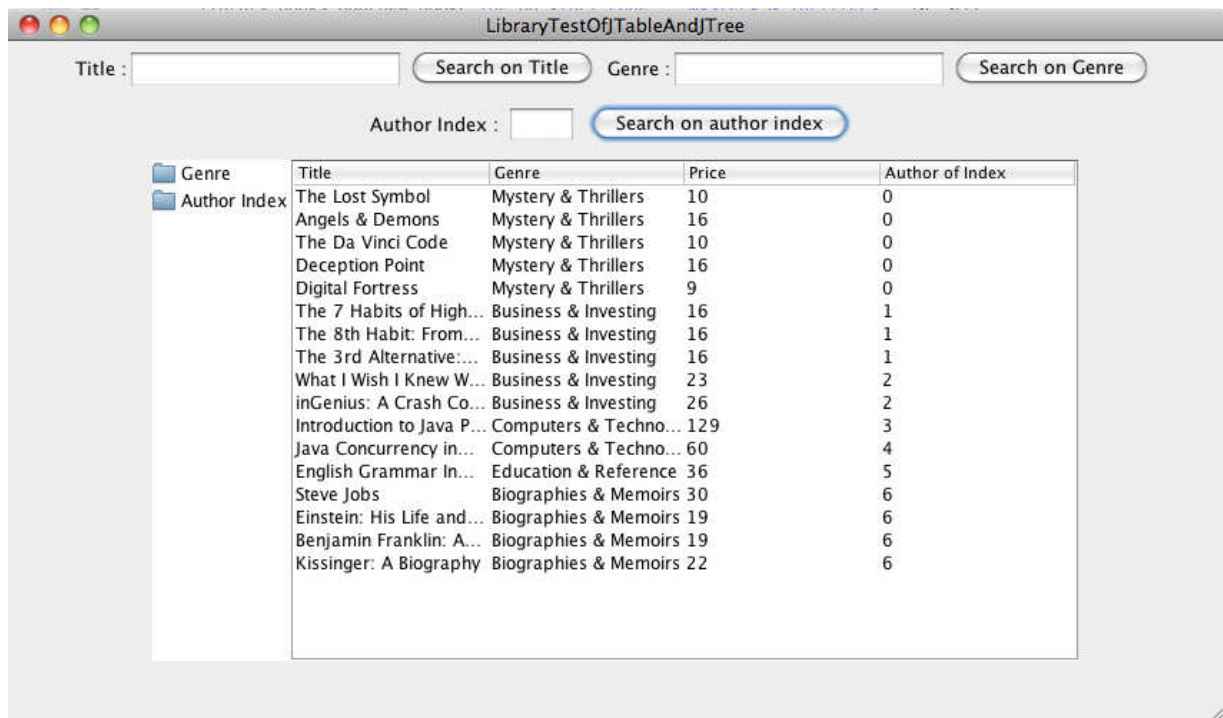
4.4. Search on JTree by genre

1) Double-click on "Genre" node, and then it automatically expands the child nodes.
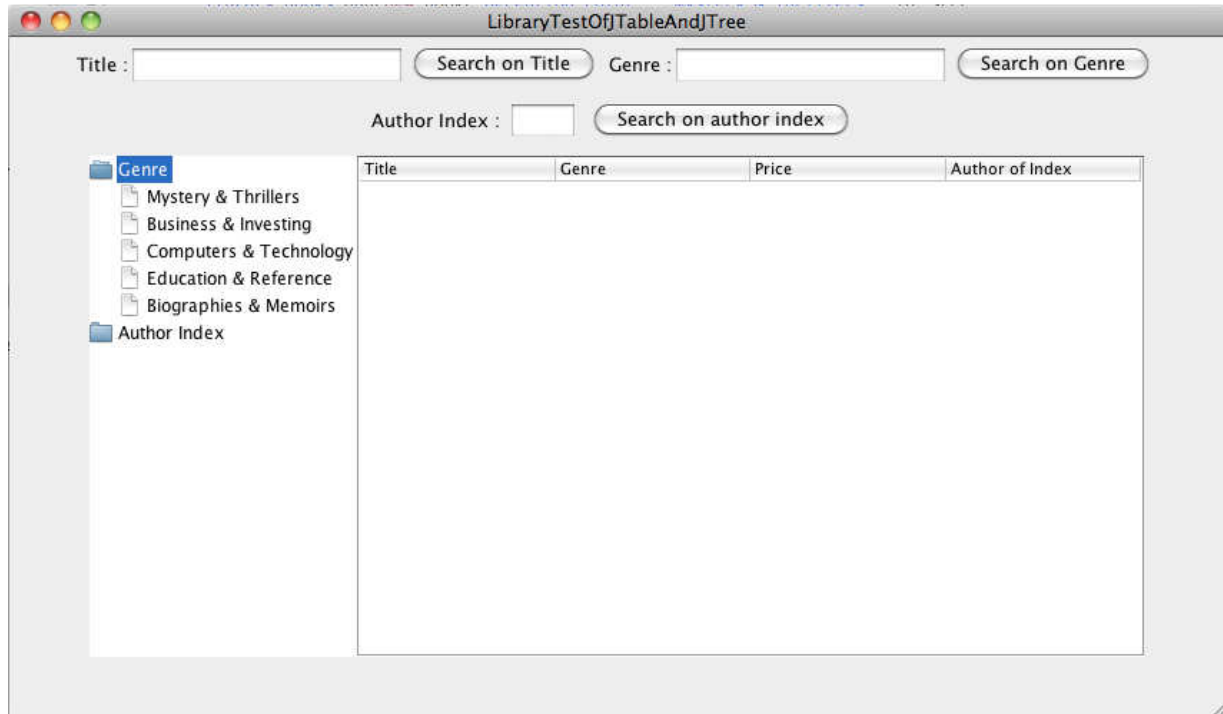
2) Select one of the Genre nodes. Then, you get the result of your search in the table.
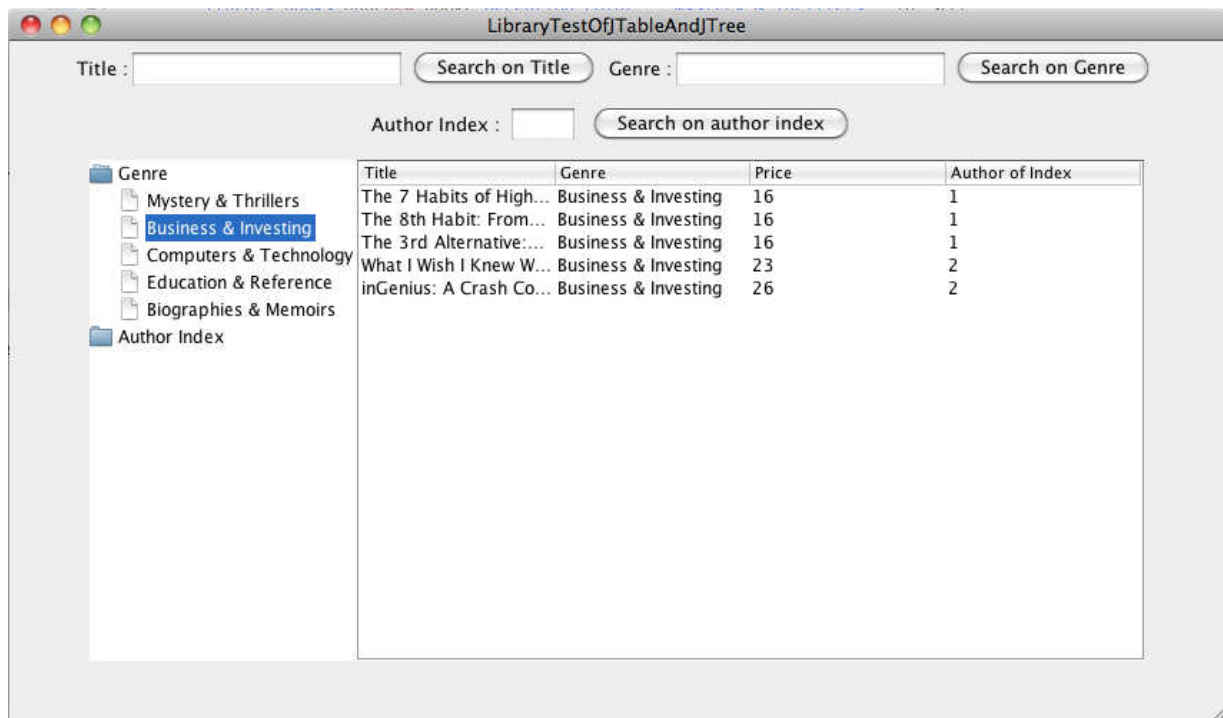
4.5. Search on JTree by author index

1) Double-click on "Author Index" node, and then it automatically expands the child nodes.
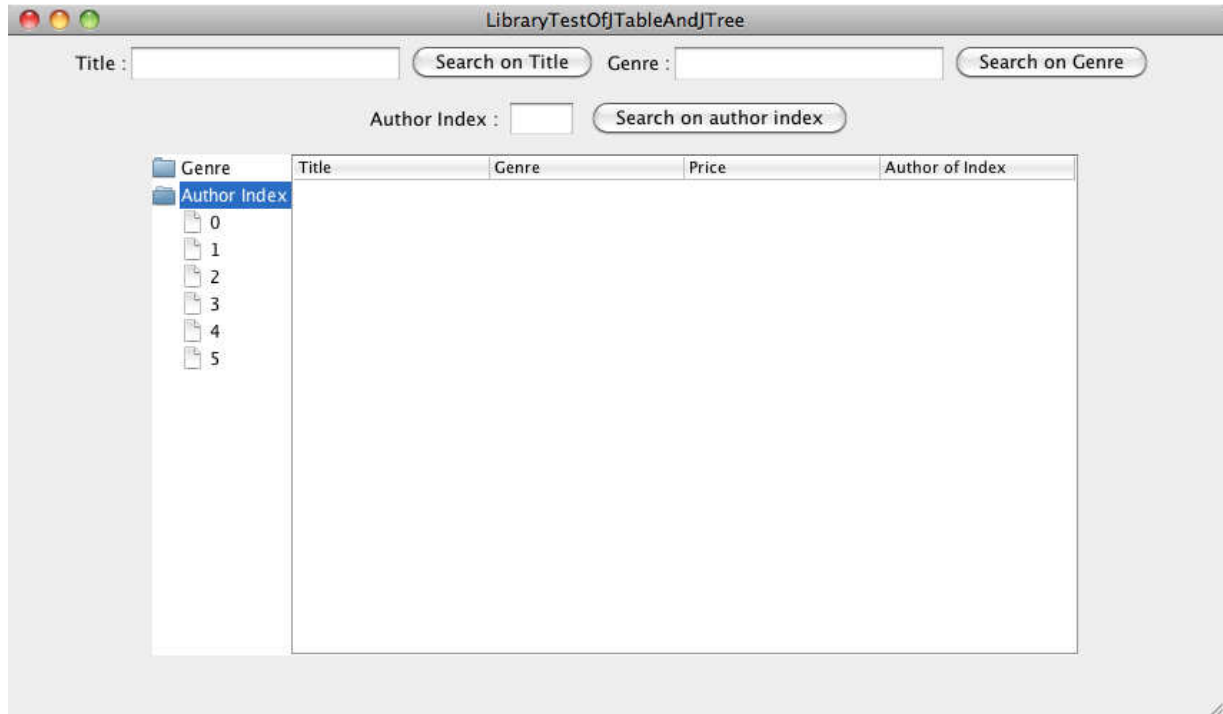
2) Select one of the Author Index nodes. Then, you get the result of your search in the table.

4.6. Sort by title

1) After you searched, click "Title" of the column headers in the table.

4.7. Sort by genre

1) Click "Genre" of the column headers in the table.

4.8. Sort by price
1) Click "Price" of the column headers in the table.

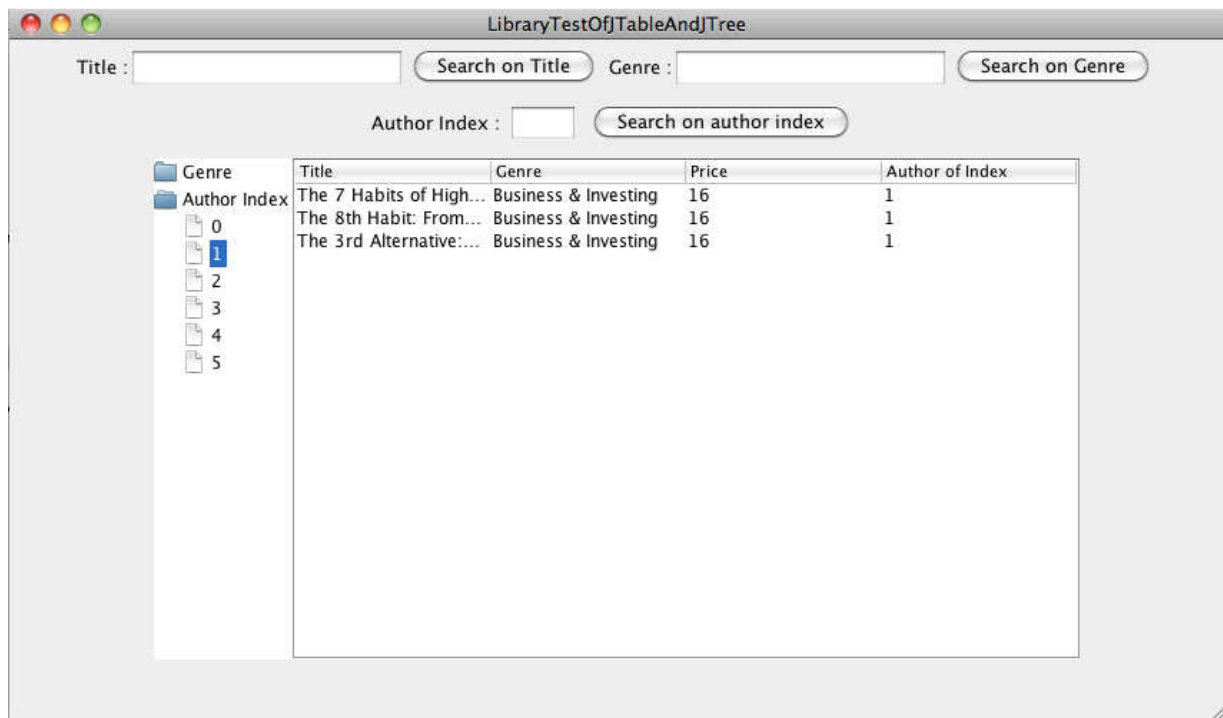| Title	Genre	Price ▲	Author of Index
The Da Vinci Code	Mystery & Thrillers	10	0
The Lost Symbol	Mystery & Thrillers	10	0
Introduction to Java P...	Computers & Techno...	129	3
The 3rd Alternative:...	Business & Investing	16	1
The 7 Habits of High...	Business & Investing	16	1
The 8th Habit: From...	Business & Investing	16	1
Angels & Demons	Mystery & Thrillers	16	0
Deception Point	Mystery & Thrillers	16	0
Benjamin Franklin: A...	Biographies & Memoirs	19	6
Einstein: His Life and...	Biographies & Memoirs	19	6
Kissinger: A Biography	Biographies & Memoirs	22	6
What I Wish I Knew W...	Business & Investing	23	2
inGenius: A Crash Co...	Business & Investing	26	2
Steve Jobs	Biographies & Memoirs	30	6
English Grammar In...	Education & Reference	36	5
Java Concurrency in...	Computers & Techno...	60	4
Digital Fortress	Mystery & Thrillers	9	0

Window title: LibraryTestOfJTableAndJTree
Title : [ ] (Search on Title) Genre : [ ] (Search on Genre)
Author Index : [ ] (Search on author index)
Tree: Genre, Author Index

4.9. Sort by author index
1) Click "Author Index" of the column headers in the table.

Title	Genre	Price	Author of Index ▲
The Lost Symbol	Mystery & Thrillers	10	0
The Da Vinci Code	Mystery & Thrillers	10	0
Angels & Demons	Mystery & Thrillers	16	0
Deception Point	Mystery & Thrillers	16	0
Digital Fortress	Mystery & Thrillers	9	0
The 7 Habits of High...	Business & Investing	16	1
The 8th Habit: From...	Business & Investing	16	1
The 3rd Alternative:...	Business & Investing	16	1
What I Wish I Knew W...	Business & Investing	23	2
inGenius: A Crash Co...	Business & Investing	26	2
Introduction to Java P...	Computers & Techno...	129	3
Java Concurrency in...	Computers & Techno...	60	4
English Grammar In...	Education & Reference	36	5
Einstein: His Life and...	Biographies & Memoirs	19	6
Benjamin Franklin: A...	Biographies & Memoirs	19	6
Kissinger: A Biography	Biographies & Memoirs	22	6
Steve Jobs	Biographies & Memoirs	30	6

Window title: LibraryTestOfJTableAndJTree
Title : [ ] (Search on Title) Genre : [ ] (Search on Genre)
Author Index : [ ] (Search on author index)
Tree: Genre, Author Index

5. Test Data

5.1. Author Table

index	name	street address	city	state	zip	phone
0	Dan Brown	123 Street	Concord	New Hampshire	3301	603-123-456
1	Stephen R. Covey	456 Street	Salt Lake City	Utah	84101	385-456-7890
2	Tina Seelig	450 Serra Mall	Stanford	California	94305	650-725-1627
3	Y. Daniel Liang	11935 Abercorn Street	Savannah	Georgia	314191997	912-344-3264
4	Brian Goetz	777 Street	Williston	Vermont	5495	802-388-8405
5	Ray Murphy	University Road	Galway	County Galway, Ireland	904018	353-91-493081
6	Walter Isaacson	789 Street	New Orleans	Louisiana	70112	504-789-0123

5.2. Book Table

index	Title	Genre	price	auth of index
0	The Lost Symbol	Mystery & Thrillers	$10	0
1	Angels & Demons	Mystery & Thrillers	$16	0
2	The Da Vinci Code	Mystery & Thrillers	$10	0
3	Deception Point	Mystery & Thrillers	$16	0
4	Digital Fortress	Mystery & Thrillers	$9	0
5	The 7 Habits of Highly Effective People	Business & Investing	$16	1
6	The 8th Habit: From Effectiveness to Greatness	Business & Investing	$16	1
7	The 3rd Alternative: Solving Life's Most Difficult Problems	Business & Investing	$16	1
8	What I Wish I Knew When I Was 20	Business & Investing	$23	2
9	inGenius: A Crash Course on Creativity	Business & Investing	$26	2
10	Introduction to Java Programming, Comprehensive	Computers & Technology	$129	3
11	Java Concurrency in Practice	Computers & Technology	$60	4
12	English Grammar In Use	Education & Reference	$36	5
13	Steve Jobs	Biographies & Memoirs	$30	6
14	Einstein: His Life and Universe	Biographies & Memoirs	$19	6
15	Benjamin Franklin: An American Life	Biographies & Memoirs	$19	6
16	Kissinger: A Biography	Biographies & Memoirs	$22	6