



Amazing Books Application Builder Project

SCENARIO

Cicely Williams inherited her uncle's bookstore after he retired in 2001. In the last two years, the bookstore's sales have skyrocketed. Cicely can no longer continue to manage the business without using a database to store customer records, track inventory and access accounting information. Eventually, Cicely would like to take the business online, but first she needs an easier way to manage the details of her business in house.

She needs to be able to:





- search her inventory for book titles, authors, ISBN numbers, book editions, book subjects and publishers.
- track sales for other merchandise items and display wholesale and retail prices for all items
- insert, update and delete items from her items inventory
- track customer information for emailing store specials, new books, book signings, etc.
- place and view customer orders

Recently, Cicely hired a consulting company to determine the information needs of her business. The consultants developed an Entity Relationship Diagram detailing the business' data and functionality requirements. Now, Cicely is ready to have you design an easy to use, but robust application interface for her office. Having just completed the Oracle Internet Academy Data Modeling and SQL course, you are confident in your ability to design the application Cicely needs.

LOCKING APPLICATIONS

To keep the students from using or changing applications that you build, lock your application. **NOTE: This will NOT prevent students from deleting applications. Warn your students to never delete an application without your permission.**

Click on the application you want to protect.



Application ▲	Name	Page Count	Updated	Updated By	Run
118	ITEMS	5	2 weeks ago	usva_arb_sql01_s25	
399	CUSTOMERS	5	3 weeks ago	usva_arb_sql01_t01	
401	MERS	7	3 weeks ago	usva_arb_sql01_s29	
471	AMAZING_BOOKS	8	11 hours ago	usva_arb_sql01_t01	

1.4

For each table, click the “Lock” icon:

Pages Create Page

Find Rows: 10 Find

Page ▲	Name	Updated	Updated By	Lock	Run
1	ORDERS	11 hours ago	usva_arb_sql01_t01		

Put in any comment, and then select “Lock Page(s)”

Lock Page(s) Cancel Lock Page(s)

Lock Pages: 1

* Comment

Locked by Smith

Repeat for every table.

NOTE: Login for applications is the same login and password as the login for the HTML DB schema under which the application is developed.

<u>User Name</u>	<input type="text" value="usva_arb_sql01_t01"/>	<input type="button" value="Login"/>
<u>Password</u>	<input type="password" value="•••••"/>	

Edit Application	Edit Page 101	New	Session	Debug	Show Edit Links
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AMAZING BOOKS

Part by Part

The Amazing Books Final Project uses Oracle Application Express SQL Workshop and the Application Builder components to build a database for the Amazing Books bookstore. The project is divided into the eight parts. Each step consists of several Parts. Each step has detailed instructions and supporting graphics.

Part 1: Building the base tables and adding column constraints.

Part 2: Creating the application's pages, page style and Popup List of Values (LOVs).

Part 3: Creating the input forms and report regions for the application's CUSTOMERS, SUBJECTS, PUBLISHERS, ITEM_TYPES pages.

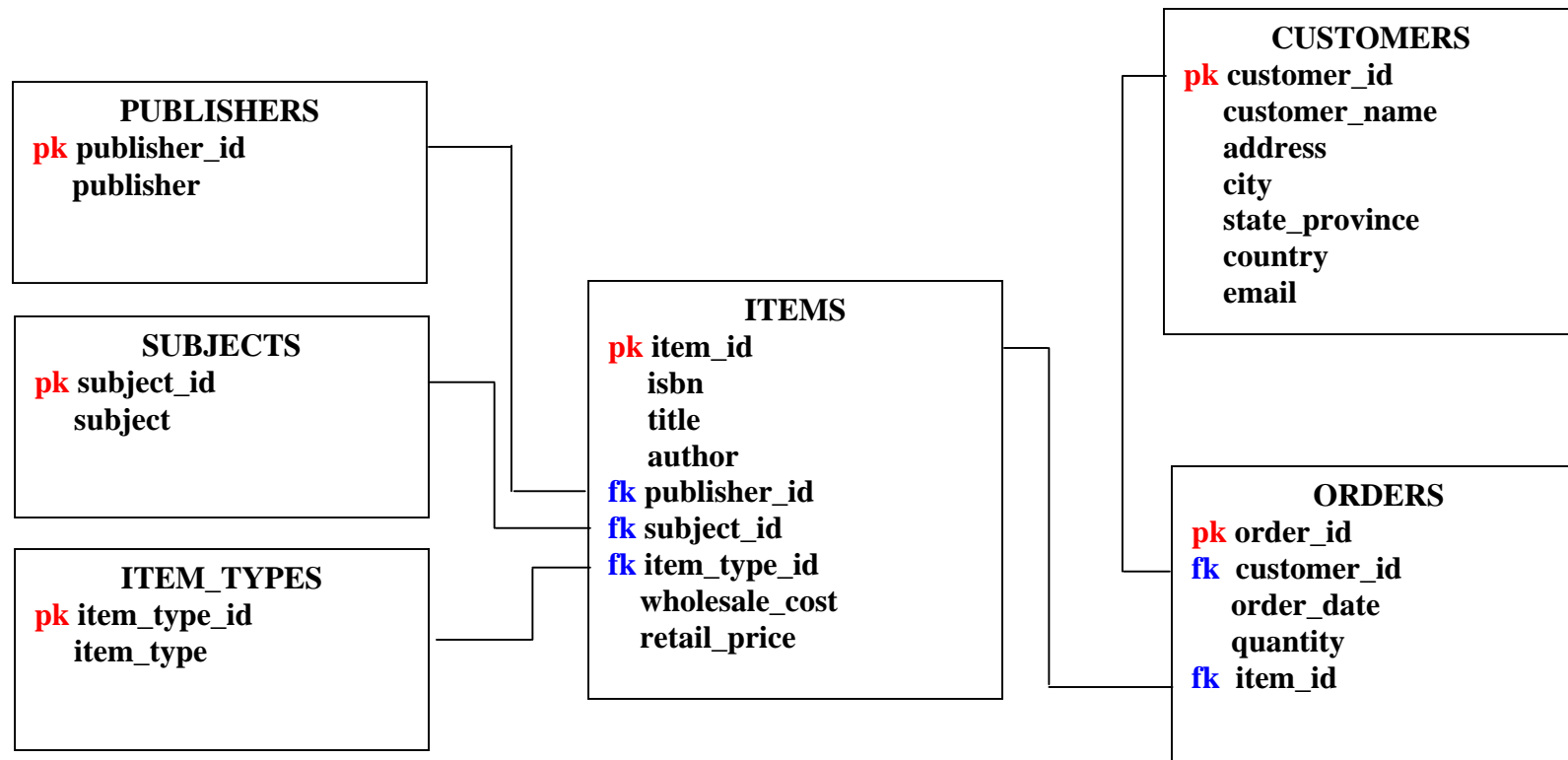
Part 4: Inputting data into the CUSTOMERS, SUBJECTS, PUBLISHERS, ITEM_TYPES tables.

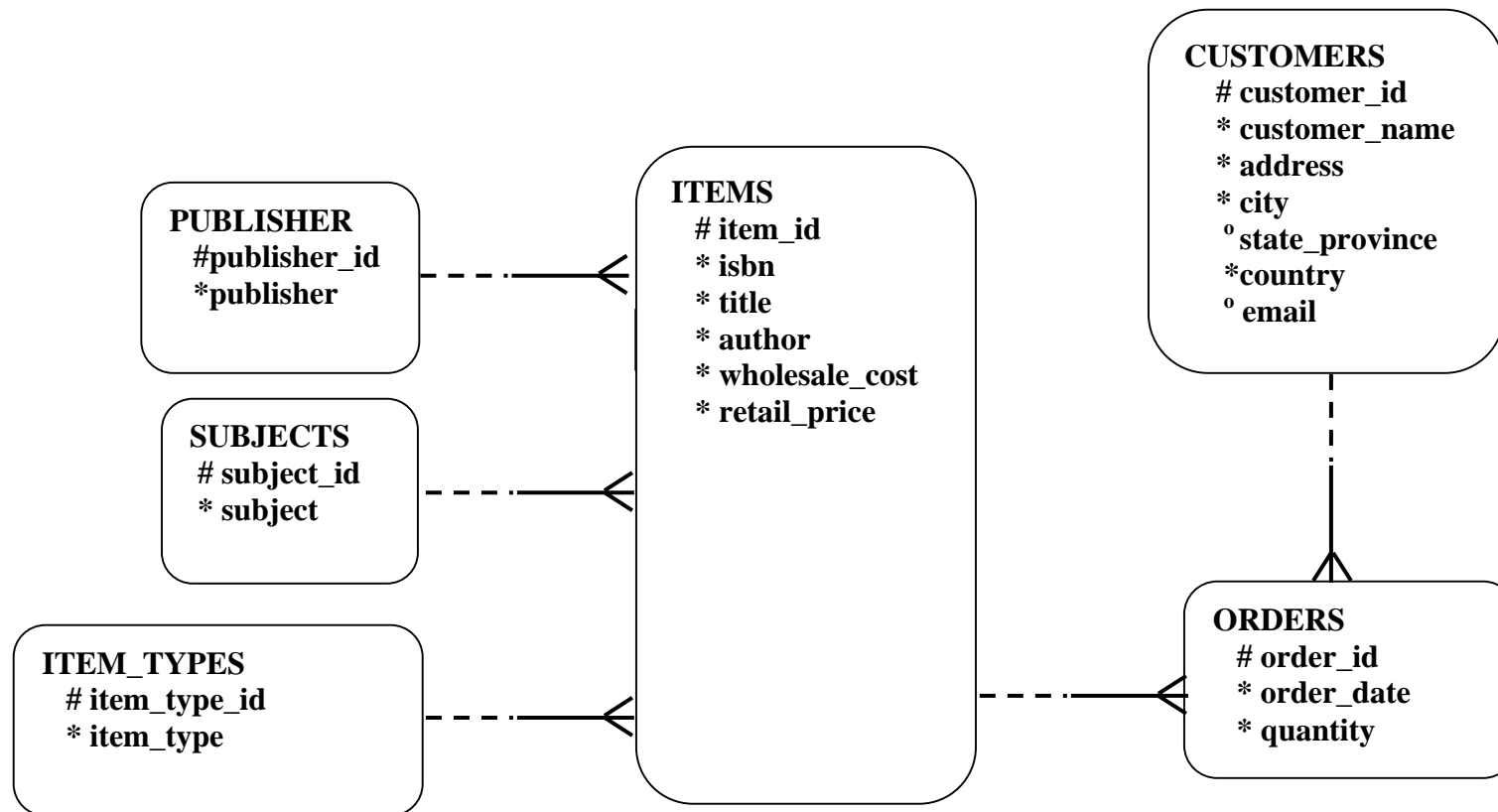
Part 5: Creating the input forms and report areas for the application's ORDERS and ITEMS pages to enable use of the LOVs for inputting data.

Part 6: Inputting data into the Orders and Items table.

Part 7: Formatting report attributes.

Part 8: Creating charts to display summary data.





Amazing Books Sample Data

CUSTOMERS Table

Customer Id	Customer Name	Customer Address	Customer City	Customer State Province	Customer Country	Customer Email
1	Pat Middleton	123 Birkshire Lane NW	Fargo	ND	USA	pat.m@fargond.com
2	Bob Fridell	123 Omak Drive	Omak	WA	USA	bob@alo.com
5	Oliver Dunn	U13 Nangor Business Park	Clonmel		Ireland	oliver.dunn@irlnd.org
3	Buddy Wright	7425 Golf Club Rd	Port Orchard	WA	USA	buddy@golfclubroad.com
4	Detlev Grossman	1873 Hanover Strasse	Weisbauden		Germany	detgros@hanoverstrasse.com

ITEM TYPES Table

Item Type Id	Item Type
1	Hard Cover Book
2	Soft Cover Book
3	CDROM
4	General Merchandise

PUBLISHERS Table

Publisher Id	Publisher
1	Prentice Hall
2	Horstman
3	South-Western Educational Publishing
4	Wiley & Sons
7	Quill
8	Book Products LLC
5	Penguin Books
10	Oracle Press
6	Jossey-Bass
9	Yale University Press

SUBJECTS Table

Subject Id	Subject
1	Generalities
2	Philosophy and Related Disciplines
4	Social Sciences
5	Language
6	Pure Sciences
7	Technology and Applied Sciences
10	Geography, History, and Related Disciplines
3	Religion
8	The Arts
9	Literature

ITEMS TABLE

Item Id	Isbn	Title	Author	Publisher Id	Subject Id	Item Type Id	Wholesale Cost	Retail Price
4	0-7879-5281-8	The Jossey Bass Reader on Educational Leadership	Jossey Bass	6	1	2	12.01	26.75
1	0-13-016638-3	JAVA 2 Programmer's Interactive Workbook	Chu, Kevin	1	7	2	22.5	39.99
2	0-471-40248-6	Big JAVA	Horstman, Cay	4	7	2	45	70
3	0-06-092078-5	Putt Like the Pros	Pelz, Dave	7	1	2	7.64	17
5	0-14-015735-2	Getting to Yes: Negotiating Agreement	Fisher, Roger	5	1	2	6.3	14
7	0-07-222513-0	JAVA 2: A Beginner's Guide	Schildt, Herbert	10	7	2	13.5	29.99
6	0-07-219537-1	OCP Introduction to Oracle 9i	Couchman, Jason	10	7	1	22.5	49.99

ORDERS TABLE

Order Id	Customer Id	Order Date	Quantity	Item Id
1	1	19-APR-04	1	1
2	1	20-APR-04	2	1
3	3	20-APR-04	1	3
4	5	20-APR-04	1	2
5	2	20-APR-04	2	5
6	4	20-APR-04	1	6

Application Builder Terminology

An **application** is a collection of database-driven Web pages linked together using tabs, buttons, or hypertext links. A **page** is the basic building block of an application.

A page in turn is divided into **regions**. A region is a section of a page that contains content.

For the Amazing Books Project, the base tables, CUSTOMERS, ITEMS, PUBLISHERS, SUBJECTS, ITEM_TYPES, and ORDERS, will each have a separate page in the application.

As shown in the example below, each page is divided into two regions. One region will display an input form for the user to enter data into the base tables. The second region will display reports from the database. These reports are generated from underlying SQL commands built into the report.

Each page will have a single row of tabs to navigate between pages.

A separate chart page will be used to display summary data.

Print Logout

ORDERS CUSTOMERS ITEMS SUBJECTS PUBLISHERS ITEM TYPES VIEW CHARTS

Buttons

Cancel Create

Form on ORDERS

Customer Id 1

Order Date 2

Quantity

Item Id 1

Input form region showing LOV buttons (1) and date button (2).

Orders Report

Order Id	Customer Name	Title	Order Date	Quantity	Retail Price
1	Amy Day	JAVA 2 Programmer's Interactive Workbook	08-MAR-06	1	39.99

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Report region showing report

HTMLDB_PUBLIC_USER

Edit Application Edit Page 1 New Session Debug Show Edit Links