

CS 522—Mobile Systems and Applications

Assignment Three—Databases—Rubric

Part 1: Book Store

10: .contracts.BookContract class

- 5: Defines column names
- 5: Defines getter (Cursor) and putter (ContentValues) operations

20: .entities.Book entity class

- 5: fields of the entity
- 5: list or array of authors (with Author entity class), both implement Parcelable
- 5: Book(Cursor) constructor
- 5: writeToProvider(ContentValues) method

35: .databases.CartDbAdapter class

- 5: Useful literals: DATABASE_NAME, BOOK_TABLE, AUTHOR_TABLE,
- CREATE_DATABASE, DATABASE_VERSION
- 5: CREATE_DATABASE follows spec, and is constructed using column names from contract
- 5: Use of SQLiteOpenHelper (subclass) to create/open database
- 10: Definition of adapter operations:
 - public CartDbAdapter open() throws SQLException;
 - public Cursor fetchAllBooks();
 - public Book fetchBook(long rowId);
 - public void persist(Book book) throws SQLException;
 - public boolean delete(Book book);
 - public boolean deleteAll();
 - public void close();
- 10: Authors in separate table in database, use of join and aggregation (GROUP-BY with GROUP-CONCAT) to return authors in query

10: SimpleCursorAdapter in main activity to display contents of book stoe

25: Functionality:

- 5: Main activity displays books
- 10: Main activity supports both viewing (via detail Activity) and deletion of a single book (may be context menu or context action bar (or deletion via detail Activity ok))
- 10: activity to add book, inserts the book into the database

10: Report (including video)

Total: 90

Part 2: Chat App

30: Design

10: entity classes for Messages and Peers (entities package)

(Must define Constructor(Cursor, writeToProvider(ContentValues)) for both

5: contract class (contracts package) defines getter and putter operations

15: database adapter (databases package)

5: Using SQLiteOpenHelper to open/create database

5: Database tables as described in spec, using column name literals from contract

5: Query by doing a natural join

25: Functionality

- 10: Client sent message is received at server
- 5: Server displays a list of messages received so far
- 5: Option menu provides activity for displaying peers
- 5: Selecting a peer provides info including messages from that peer

5: Report (including video)

Total: 60