CS 522—Mobile Systems and Applications
Assignment Four—Content Providers—Rubric

Part 1: Book Store

15: .contracts.BookContract class
- 5: Defines AUTHORITY, CONTENT_URI, CONTENT_PATH
- 5: Defines column names
- 5: Defines getter (Cursor) and putter (ContentValues) operations

10: .entities.Book entity class
- 5: Book(Cursor) constructor
- 5: writeToProvider(ContentValues) method

35: .providers.BookProvider class
- 5: Literals as before, CREATE_DATABASE follows spec, and is constructed using column names from contract
- 5: Use of SQLiteOpenHelper (subclass) to create/open database
- 10: query, insert, delete implemented
- 10: insert and delete implement `notifyChange()`, query sets notify listener in cursor
- 5: Authors in separate table in database, use of join and aggregation (GROUP-BY with GROUP-CONCAT) to return authors in query

35: BookstoreWithContentProvider:
- 10: Main activity uses loader manager for queries, callbacks are defined as methods in the main activity
- 5: Main activity supports deletion of multiple books using multi-selection CAB
- 5: Use of custom cursor adapter to display first author only in main activity
- *5: Details book activity still works*
- *10: This version of the app works: add and delete books, view details*

40: BookstoreWithEntityManager:
- 5: AsyncContentResolver class derives from AsyncQueryHandler
- 5: SimpleQueryBuilder uses AsyncContentResolver
- 5: QueryBuilder uses LoaderManager
- 10: BookstoreManager used to access data, uses all three of the classes defined above,
- 5 AsyncContentResolver used in BookstoreManager for asynchronous insert/update (no direct access to CR or LM from activities)
- *10: This version of the app works: add and delete books, view details*

Total: 145

Part 2: Chat App

30: Design
5: entity classes (entities package) for Messages and Peers
5: contract class (contracts package)
10: content provider (providers package), as before two tables (Messages and Peers)
5: manager class (managers package), no direct access by app to content resolver or loaders or loader manager
5: AsyncContentResolver, SimpleQueryBuilder, QueryBuilder

20: Functionality
- *10: Client sent message is displayed at server*
- *5: Display list of peers*
- *5: Display messages for a particular peer*

5: Report (including video)

Total: 55