

Exercise - Data Access Objects Pattern (45 minutes)

The provided source code implements a simple console-based program for managing budgets. It uses the SQLite relational database to persist budget information. Unfortunately, the provided code does not apply the DAO pattern. The database code is distributed throughout the Main class and the various Presenter classes. Your task is to refactor this code to apply the DAO pattern. All of the database code should be isolated in appropriate DAO classes that have appropriate abstract interfaces. No part of the program should know what kind of database is being used, except the few lines of code that initialize the DAO objects. It should be possible to port the program to a different database by only implementing a new set of DAOs.

The following dependencies have already been created for you in the packages.json file (just run “npm install” to install them):

```
"dependencies": {  
  "@types/sqlite3": "^3.1.5",  
  "guid-typescript": "^1.0.9",  
  "readline-sync": "^1.4.10",  
  "sqlite3": "^4.0.9"  
}
```

Zip up and submit your code on Canvas.

