Bicycles! App Executive Summary

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Audience & AppStore Position

The *Bicycles!* App is relevant for anyone who owns a bicycle (or aspires to) and wants to record details about their bicycles as well bicycle-related items they wish to acquire. The app allows for a number of different properties for a bicycle; a particularly noteworthy capability is that the user can record their bicycle's serial number. This information, as well as other information entered by the user, can help in the event a bicycle is stolen (the bicycle serial number can often increase the chances of recovering a bicycle). While the app is nominally targeted at anyone, the user with multiple bicycles and domain knowledge will get the most use out of the app and is intended as the core market.

Most bicycling-related apps in the App Store deal with tracking rides, pathfinding, exercise, and so on and are placed in the Health & Fitness or Sports categories. These apps do often provide a mechanism for indicating which bike was used, but the possible information to enter is very limited (usually just a text descriptor). Apps that assist a user with tracking maintenance of they bicycles usually will allow more details to be entered. Such apps include *Feedback Sports Bicycle Maintenance Tracker* (free) and *Bike Repair* ($3.99). No apps seem to include a feature to search for bicycle-related businesses in a local area. *Bicycles!* has been a Sports categorization more out of a desire to position the app with similar apps.

Technical Details

The app uses the NSCoding protocol to persist the user's data (bicycles and wishlists) to disk. At present the data model for bicycles and wishlist items is fairly flat. If development of this app is continued and the data model becomes more complex (more nested structures), use of a proper database management system will likely be necessary. The app does not have functionality to persist the stored data to any online/external service.

The user navigates a series of tables to add and edit details about their bicycles. While it is possible to enter a bicycle with no data, the app will display some placeholder information by default to aid in distinguishing otherwise identical nil objects. As mentioned above, most properties of a bicycle (as represented in the app) are simple and have one level of detail (though future versions would flesh out these properties and the table progression has been set up to easily facilitate that). The Wishlist similarly provides a table structure (though at present it is limited to display or transfer; it is not possible to edit an entry or view additional details).

For full functionality the Map feature requires an active network connection and authorization for Location Services. In the event of network failure, the application informs the user and all functionality for this feature is disabled (though existing map data displayed before the network failure should still be present and interactive to a point). When the user first accesses the Map feature, they will be prompted to authorization the application to access their location while in use. In the event that Location Services authorization is denied or otherwise unavailable, the Search Current Location feature will be disabled but specific location searches are still possible. Within the given search area, pins are dropped on the map indicating the locations of such businesses.