

Personal Unit Test Report

Product Name: SlugDex

Team Name: The Slug Surveyors

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Files Tested

ManageUserData.dart

- Test Cases:
 - User data is created successfully upon account creation
 - Checked the database to ensure that the user's email and default data is correct
 - Ensure that the number of discovered entries is reflected correctly
 - Checked that datatypes in the database were correct and matched what was being uploaded
 - User data is updated persistently
 - When a user discovers a location, all discovered entries are uploaded to the database
 - Data can also be pulled to reflect the update
 - The discovered count of an entry is shown correctly
 - The count was incremented locally and printed
 - The data when uploaded shows correctly in the database
 - The count is consistent upon multiple users discovering locations
 - All GET queries
 - All queries that get data return the data shown in the database
 - Multiple values and pages were changed to make sure there was persistence and no propagation of effects when getting data
 - Check if data exists before attempting to use it
 - If the data does not exist it will be created
 - Update data and get it to ensure most recent data is received
 - All UPDATE queries
 - Make sure that ONLY specified values are updated
 - Check that values are changed only in the tables specified
 - Get data, update data, and get again to ensure that updates are persistent

entry.dart

- Test Cases:
 - Entries store all data fields correctly
 - Entries are read in with different types which are casted to the necessary data types

- Overridden toString() function prints all object attributes
- Check null objects before trying to access values

entryReadWrite.dart

- Test Cases:
 - List of entries is correctly loaded with correct data upon app execution
 - Data does not show exceptions when being read
 - List is printed showing the most recent data
 - When the list is updated and reloaded, most recent values are shown
 - All entries are loaded correctly
 - List is updated correctly
 - The index being updated is within bounds
 - List update is reflected in firebase
 - Upon reload, most recent values are shown

LeaderBoard.dart

- Test Cases:
 - Leaderboard is displayed
 - Make sure correct number of tabs are given
 - Ensure that each tab has data to display in case of error
 - Leaderboard shows user's with most entries in descending order
 - Loads empty leaderboard if there are no users on the board
 - Check that correct users are displayed in the correct order
 - Check that the values associated with each user are correct
 - If the user data updates, leaderboard correctly reflects changes
 - Upon user data changing, the leaderboard order is correct
 - Leaderboard shows average discovery time of users with most entries
 - Ensure that users with the most entries are at the top of the leaderboard
 - Ensure that the average discovery time is calculated correctly
 - Check that there is no division by zero
 - The average discovery time is correct
 - The time is correctly formatted
 - Leaderboard shows the discovery statistics of each entry in ascending order
 - Make sure most recent number of players is pulled
 - Ensure that the discovered count of a location is correctly pulled
 - Make sure list is correctly sorted by discovered count
 - If the user hasn't discovered a location, make sure the name is hidden
 - Percentage is calculated correctly
 - Avoid division by zero
 - Print the percentage in correct format

