Project Whitekey

Acceptance Test Plan

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Acceptance test: The Keyboard and Audio Handling

Expected Input: The user presses keys in an indeterminate order or combination with the goal of playing music.

Expected Output: Sounds should play which correspond to the key being pressed. Simultaneous key presses will result in simultaneous sounds.

Pass Criteria: The proper sound(s) plays immediately following a corresponding key press by the user.

Failure Criteria: If sounds do not play when a key (or simultaneous sounds when multiple keys are pressed) is pressed, the test will fail.

Acceptance test: Scale Select Option

Expected Input: The user selects a different scale for the keyboard in the options menu.

Expected Output: The keys to the keyboard should be remapped to play the respective sounds of the selected scale. When a piano key is pressed, it should reflect the respective element in the new scale. The current scale display will change to reflect the new scale.

Pass Criteria: The sounds are updated to reflect the key the music has been set to. The current scale display changes to reflect the new scale.

Failure Criteria: If the keys are not updated to play their new sound, or if the current scale display reads anything other than the new scale the test will fail.

Acceptance test: Application Exit Handling

Expected Input: The user closes out of the application.

Expected Output: Any currently playing sounds will be stopped.

Pass Criteria: The app is exited from and all resources being used by it are unloaded properly.

Failure Criteria: If sounds from the app are still being played after the user exits, the test will fail.

Acceptance test: Advertisment Handling - Free Version

Expected Input: The user opens a free version of the application.

Expected Output: A persistent advertisement will be displayed on the screen the entire time the app is in use.

Pass Criteria: The ad is displayed in an unobtrusive way to the user, where they are able to view and press the ad.

Failure Criteria: If the ad is not displayed to the user, or disappears at any time, the test will fail.

Acceptance test: Advertisement Handling - Paid Version
Expected Input: The user opens a paid version of the application.

Expected Output: No advertisement is displayed on the screen.

Pass Criteria: The application is loaded without any ads, and none will ever appear.

Failure Criteria: If at any time there is an advertisement displayed to the user, the test will fail.

Acceptance test: Interface Volume Modification
Expected Input: The user slides a volume slider on the main interface.

Expected Output: The system volume is modified to a respective setting relative to the position of the volume slider.

Pass Criteria: The user interacts with the volume slider, and the system responds accordingly.

Failure Criteria: If the system volume does not reflect the relative position of the volume slider, the test will fail.

Acceptance test: System Volume Modification
Expected Input: The user modifies the system volume through some means outside of the application (hardware buttons if applicable, or through the system settings).

Expected Output: The updated volume is reflected on the interface to the relative position on the volume slider.

Pass Criteria: The system volume is changed, and that change is reflected within the application.

Failure Criteria: If the system volume changes and it is not reflected on the volume slider, the test will fail.

Acceptance test: Interface BPM Modification
Expected Input: The user slides a BPM (Beats Per Minute) slider on the main interface.

Expected Output: The BPM of the background track will reflect the updated BPM. The visual display of the current BPM will change to reflect the value of the BPM relative to the slider's position.

Pass Criteria: The current Beats Per Minute slider is modified, and the application adjusts the speed of the background music to reflect those changes.

Failure Criteria: If the background track does not change to reflect the new BPM, or the visual display does not reflect the value of the BPM relative to the slider's position, the test will fail.

Acceptance test: Backing Track Functionality - Start
Expected Input: The user presses a play button on the main interface.

Expected Output: A background track will play at the current displayed BPM.

Pass Criteria: The music starts as soon as the button is pushed.

Failure Criteria: If the background track does not play when the start button is pressed, or it is not playing at the displayed BPM, the test will fail.

Acceptance Test: Backing Track Functionality - Stop
Expected Input: The user presses a stop button on the main interface

Expected Output: A background track, if playing, will stop.

Pass Criteria: The music stops as soon as the button is pushed.

Failure Criteria: If the background track does not stop when the button is pressed, the test will fail

Acceptance test: Options Menu Button - Free Version
Expected Input: The user, running a free version of the app, presses the options button on the main interface.

Expected Output: A menu will pop up providing the user with a link to the paid version of the app in the Play Store.

Pass Criteria: The pop up appears and allows the user to purchase a paid version of the application, correctly linking the user to the appropriate store page.

Failure Criteria: If the pop up does not occur on the user's screen, or the true options menu is displayed, the test will fail.

Acceptance test: Options Menu Button - Paid Version

Expected Input: The user, running a paid version of the app, presses the options button on the main interface.

Expected Output: The true options menu will be displayed, allowing the user to select a different scale.

Pass Criteria: The pop up dialog asking the user to purchase the full version never appears.

Failure Criteria: If the pop up message for purchasing the paid app appears on the user's screen, or the options menu does not appear, the test will fail.

Acceptance Test: Initialization

Expected Input: The user opens the application.

Expected Output: The keys on the keyboard are mapped to the pentatonic scale, and the BPM setting is initialized to 120.

Pass Criteria: The app successfully loads and draws its graphical resources quickly and accurately. The app sets the initial BPM to 120, and maps the pentatonic scale to the on-screen keys.

Failure Criteria: If the keys on the keyboard are mapped to something other than the pentatonic scale, or the initial BPM is not set to 120, the test will fail.