

## **Explanation/Description of Project Roles:**

The programmer is responsible primarily for the backend development of features using the Swift programming language and the UIKit framework. The tone generator, metronome, and chromatic tuner audio engines are imported from open-source repositories and adjusted or built upon as needed. The programmer must be consulted by the UI designer and testers and stay informed of localization efforts to ensure the proper implementation thereof. He also tests the application to ensure that his implementations are functional and satisfactory.

The designer is responsible primarily for the frontend look, layout, and user interface design, as well as graphical elements and color gradients. She must also provide application color ways and icons. She also helps with testing to ensure that the application and controls are usable on all compatible devices and must stay informed of localization efforts to verify that localized text strings remain within proper view boundaries.

The translator is responsible primarily for writing the localizable strings file by consulting subject matter reference works such as dictionary entries, videos, and encyclopedia articles. She must ensure that she understands the proper context of the words and strings used in the application as well as the right shade of meaning in the translation. After cross checking wordlist entries with multiple sources, she must consult native speakers for those languages that she is not proficient in. A wordlist is expected to be 70-90% accurate before handing in for review by an outside language consultant. The translator also helps with testing the application, checking to see whether localized text strings show up properly in the view and do not exceed control boundaries. She must also ensure that the typography and format of the written text (text direction, capitalization, punctuation) conforms to the locale.

The manager coordinates and is responsible and accountable for all project development efforts and must stay informed of any issues that might come up and provide guidance as to their resolution. He reports progress to the project stakeholder. The manager also directly assists in the hands-on implementation of the application backend development, frontend design, and localization as well as final product testing.