Executive Summary

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- What the app does & Main features

The Pilot is a game app designed with the goal to entertain people. In Pilot, the player has to steer a bird character through a bunch of pillars while collecting as many coins as possible. The main feature that the player interacts with the character is by drawing lines on the screen. Once the bird character collides with the line drawn by the player, it will bounce up. The game is over when the bird character hits any pillar shown up on the screen. The player needs to keep drawing lines in order to prevent the bird from colliding with any pillar.

- Basic instructions

The player will firstly be presented with a mode selection screen where the player must select a mode (easy, medium, hard) to play the game. In the easy mode, pillars are only sticking up from the ground randomly. The player will be given unlimited strokes to draw lines. In the medium mode, pillars are sticking up from the ground and the ceiling in a random position. The player will be given unlimited strokes to draw lines. Also, flowers will randomly (with 30% probability) show up in a random position. When the player controls the bird to eat a flower, the flower will apply an upward momentum to the bird the mitigate the difficulty that comes from the gravity effect on the bird. In hard mode, pillars are sticking up from the ground and the ceiling randomly. The player will have limited strokes (roughly 15 strokes) to draw lines. The battery on the top left corner will alert the player how many strokes left by changing its color. Flowers will randomly show up in a random position. In hard mode, eating a flower will not only obtain an upward momentum but also recharge strokes, which is critical to continue gaming.

Each time the game is over, the player will be provided a leaderboard which shows the highest scores the player has got so far under 3 modes. The highest scores are stored in UserDefaults so that they will only be cleared when the user deletes the app.

- What sets this app apart

The most famous competitor app in App Store is Flappy Bird, in which the player also needs to control the bird to earn as many coins as possible. However, Pilot distinguishes from Flappy Bird in a way that insteading of controlling the bird by tapping the screen, Pilot requires the player to draw lines to control the bird, which is more challenging but also more fun to play. Meanwhile, Pilot has different modes for selection. Besides with earning as many coins as possible, the player is also provided with flowers under medium and hard mode, which will add more variations to play.

- Future vision

1. Add non-stationary objects like clouds, spaceships, and twirling stars that score extra points or work as obstacles if hit by the bird.
2. Add more bird characters with different functionalities for selection. For example, having a bird character that can become invincible for 3 seconds after eating a flower rather than obtaining a momentum.

3. Make it an online game so that multiple players can play at the same time, competing for the highest score.