Sudokey

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Executive Summary

- When people play sudoku they play it to have a fun little challenge. The game can sometimes be time consuming though depending on your skill gap. Making mistakes here and there; trying to back track and fix said mistakes; tearing through paper with an eraser; losing track of row/column placement; all of these are problems some sudoku players will eventually encounter.

- Our app "Sudokey" aims to rid these problems for sudoku players. The goal is to make the game easy to access and even easier to work with.

Gap in the Market

- Today's sudoku games are mostly still played on paper whether it be a store bought sudoku booklet or in a newspaper. There are a few online sites for sudoku but almost all aren't as user friendly as Sudokey.

Meeting the Market's Needs

- Our app Sudokey will provide a one time purchase for sudoku players so as to provide unlimited sudoku games for them to enjoy. No more buying sudoku booklets or relying on newspapers or magazines for your sudoku fun.

Implementation

- Sudokey will be managed by the app developers of our team.
- Development will be concise and efficient with the backbone of Python language coding.
- Our app will have an available demo to download for their computer. If the users like our player friendly product than they are more than welcome to make a purchase for the full product.

The Problem and Our Solution
- As mentioned before, the game can sometimes be time consuming depending on your skill gap. Making mistakes here and there; trying to back track and fix said mistakes; tearing through paper with an eraser; losing track of row/column placement; all of which are common problems.
- We plan to implement a lightweight, stylish, practical Python 3.7 desktop application for playing sudoku. The app will use tkinter for a front end GUI and using Python as a backend as well.
- The app game will have visual assist via highlighting a selected number and also highlighting the entire row and column; this helps visually when trying to do comparisons of number blocks. We are going to cross reference the final solution with the progress of the player's sudoku board, a note setting option will be implemented, have auto erasing notes when someone fills in a number, and an undo feature. If we have enough time, we will also address creating a hint feature, visually assisting to highlight like numbers, timer, displaying game numbers to play the same game with a friend, and a help tab.

Market Analysis/Primary Market/Secondary Market
- The primary market will focus on the Sudoku veteran player that play on a regular basis. The secondary market will focus on people who would casually play sudoku.

Marketing Strategies
- The strategy that the Sudokey team is taking to enter the market is to provide a very good demo product free of charge in order to make the customer see that if they would enjoy Sudokey After this trial they can buy the full app product. As more clients begin to use the demo, more potential sudoku players will consider our app for purchase.

Competition
- There are obviously competition everywhere for all products. Some of the main competitors include but aren't limited to sudoku.com, paper sudoku, New York Times, and more complex versions of sudoku like Samurai Sudoku.

Development Strategy
- The plan to develop Sudokey is to first implement an MVP GUI. From there, we plan to make the GUI functional. And then lastly add wanted features like undo, hints, number highlighting, etc.

Barriers
- Competition in the market with other sudoku apps.
- Possible high cost of marketing the product
- Application and theme design in software creation.

Critical Risks
- One major risk is that the competition may already have a strong grasp on the market and will make a similar product with improvements or better theme work. This might cause a customer shift from our product choice to our competition.

Customer Feedback Interviews (all email):

What is your name?
1. Brian Marx
2. Ziwei Cheng
3. Tymon Rybak
4. Ellie
5. Alexandra Reuber
6. Zeineb
7. A T
8. Bosco
9. Danny
10. Gavin
11. Jordan Tafaro

What do you like about paper sudoku?
1. Easy to erase/ eliminate numbers
2. More challenging as it's harder to correct mistakes
3. Nothing
4. I can write smaller workings out all over the page
5. I can erase my guesses and wrong answers
6. Nothing in particular
7. very relaxing
8. It's feel more authentic
9. Tangible, easy to note a square
10. Able to erase
11. The challenge

What do you dislike about paper sudoku?
1. It doesn't tell you if you put a wrong answer, difficult to find mistakes
2. Inconsistency of my handwriting
3. So hard to use pencils
4. Hard to go back if you've gone wrong
5. waste of paper; you need to make copies of the sudoku if playing with others
6. It's really hard to go back track when you make a mistake.
7. the trouble of fixing mistakes
8. Have to use a pencil in case of mistakes
9. After a period of time, everything starts getting messy from mistakes or etc.
10. If you finish the book, have to buy a new one
11. It can become confusing

What features do you look for in a sudoku app? What features do you want to be implemented?
1. Large enough boxes to enter several potential choices

2. Identical challenges to play with friends, sleek UX
3. the game sudoku has to be playable and be able to reset game and customise the board
4. Being able to write workings out, timer to see how I'm improving
5. app functions on Android and Apple devises; clear display of the game; easy use of the app; being able to note down and later erase guesses or wrong entries;
6. A way to keep track of the numbers that are left, an eraser
7. easy back tracking methods like "undo"
8. Ease of use and fast/easy play.
9. An option to note a square as a potential number, when I tap on a square, i'd Like it to be highlighted vertically in a row/column so that's it easy to identify on a screen. An option to tap on numbers to see what square already has a number. A check to verify answers are correct, allow a limited amount of errors - when error limit is reached, request user to wish to continue or start anew. Points system to reward those who don't top off on errors. A timer. A leaderboard
10. Able to have different difficulty
11. Helpful hints

What do you currently use to play sudoku?
1. Paper
2. Sudoku app and the book
3. paper booklet
4. I do sudoku on paper
5. paper sudoku
6. Either a sudoku book or EasyBrain's sudoku app.
7. sudoku.com
8. Newspaper
9. Mix between mobile and paper
10. Sudoku booklet
11. Paper sudoku