Mike Hahn - hahnbytes@gmail.com

Coopereesta

Coopereesta is an Android/iOS app which takes as input source code written in Cooperscript and Coopertags (programming and text markup languages, respectively), for each Cooperscript app. Developers write the Cooperscript apps, and earn money from end-users. The end-users run the Coopereesta main app and select the desired Cooperscript app, defaults to most recently used app. So the Coopereesta mobile app is capable of running multiple Cooperscript apps. The Cooperscript Web Converter enables Cooperscript to be used as a web programming language.

Business Model

The business model is freemium and ad-supported. Premium users pay $20/year and can run any Cooperscript app in normal mode. Other users pay no fees and can only run Cooperscript apps in muted mode, which is aesthetically inferior to normal mode, and includes ads. Each developer of Cooperscript apps receives 2 equal shares, A and B, of Coopereesta net revenue (developer fees) in proportion to the number of user clicks generated by the normal mode users for Share A and by the muted mode users for Share B.

Net revenue equals gross revenue minus expenses such as web hosting fees, marketing expenses, and employee wages. The founder receives 5 to 10 percent of net revenue instead of being paid a salary. In the first year after Coopereesta launches, premium users get their first 6 months free, and developer fees are subsidized by Coopereesta to the tune of $10/premium-user/year.

Muted Mode

All pixels consisting of shades of gray, including black and white, are unchanged. All other pixel colors are partially grayed out by drawing a line from the center of the RGB color cube to the pixel color to be modified. The midpoint of this line segment, or perhaps somewhere closer to the center of the RGB color cube, is used as the actual color to be displayed. Image files are unmodified and read-only, in both normal and muted modes, also reading the mouse coordinates when the mouse cursor is on top of an image always returns the center of the image. An additional restriction in muted mode is a limit imposed on the number of different Cooperscript apps the user is able to access in a given month: 3 in odd numbered months and 2 in even numbered months.

Paid Apps

Some Cooperscript apps enable in-app purchases, one-time fees or subscription fees payable by the user, which are only available to premium users. After paying an approximate 30 or 15 percent commission to Google or Apple, these funds are paid to the developer of the Cooperscript app. Paid apps and other normal mode apps may or may not offer limited functionality available to users who are stuck in muted mode. All apps sporting muted mode functionality offer normal mode to premium users.

Penalty for High Bandwidth Apps

Developers of Cooperscript apps which exceed the bandwidth quota per 1000 user clicks are penalized. For every 1000 user clicks, take the ratio between bandwidth used and the quota. If it's equal to 1, no penalty. If it's equal to 5, halve the revenue of that developer. If it's equal to 25, halve the revenue twice, and so on. Use a logarithmic formula to calculate the actual revenue if the ratio is not an exact power of 5.

Web Converter

The Web Converter converts Cooperscript and Coopertags code into Javascript and HTML, respectively. This conversion utility enables Cooperscript to be used as a client and server-side web programming language.

Picoodo

Picoodo is a sample Cooperscript app: a tool used for organizing image collections. Each image has an optional name consisting of one or more name parts, and zero or more features. Each feature has one or more mutually exclusive categories.

Main Menu

The main menu consists of 3 columns of buttons. The left column includes all the different commands: Grid, Search, Feature, Clear, Edit, Settings, Quit. The middle column includes all the different categories of the primary feature, plus All. The right column is for the secondary feature. An example of a primary feature is hair color. An example of a secondary feature is clothing color. The maximum number of features is 255, and the maximum number of categories per feature is 255.

Grid View

Images are displayed in rows and columns. Clicking on an image takes you to image view. Both grid view and image view include at the bottom a navigation row of 4 low-height buttons: yellow, red, green, blue. Yellow is Left, blue is Right, red is Up, and green is Mode. Left and Right display previous and next screen. Up takes you to main menu. Mode toggles between all images and all images having a given name. Images appear in random order by default. Clicking on Grid in main menu takes you to grid view.

Image View

Image size of subject is maximized. Left and Right display previous and next image. Up takes you to grid view. Mode changes from all images to all images having a given name, taking you to grid view. Mode is grayed out if already in single-name mode. Clicking on an image "likes" it. Most-liked images are more likely to appear near the beginning of random image lists, although that effect decays over time.

Search

Displays a keyboard: letters, space and asterisk, with or without digits, no shift key. Typing letters narrows down the list of 1st name parts, displaying matches above the keyboard. Clicking on a match or typing space displays matching 2nd name parts, and typing letters then narrows down the list of 2nd name parts (along with the 1st name part). Typing asterisk (*) matches any name part. Clicking on a partial name displays matching complete names, and user then clicks on a matching name or continues typing. Clicking on a complete name takes you to grid view. Each image has zero or more name parts.

Feature

Displays feature list in middle column. Clicking again toggles between displaying feature list in middle and right columns. Clicking on a feature list displays categories in selected feature.

Clear

Set all feature settings to All Categories.

Edit

Toggle edit mode, enabling adding/deleting images, features and categories, or reordering images.

Settings

Show/hide digits on keyboard. Change row and column counts. Toggle random/fixed order for lists of images in a given category or having a given name, for ordered lists. More advanced features include adding/deleting images, features and categories.

Image Sharing

Only premium users are allowed to share their images with other users (other users can only share posts and comments consisting of plain text or Coopertags code). Users can choose to share only images having a given name, and/or belonging to one or more categories. Users can also make image metadata public (names and categories), and browsable by other users. The user downloads the image database belonging to another user from the Coopereesta.com website. Instead of downloading all the images, only the file names are downloaded, each consisting of 16 hex digits.

Projected Revenue

These 5 scenarios assume that Coopereesta makes it to the big time. If I only have a few hundred users, I obviously can't afford to hire any paid employees, and little or no profit is achieved. Assume each user generates $1 of ad revenue per year. This is slightly conservative since 5 percent of users see no ads.

1. **Minimal scenario:** Assume number of converted Coopereesta users is 1,000, conversion rate of 5 percent, 30 Cooperscript developers exist, annual expenses are $10,000 for Google AdWords advertising of 6K and web hosting of 4K. Then gross annual revenue equals 20,000 x (0.05 x 20 + 1) = $40,000, annual expenses equals $10,000, net annual revenue equals 40,000 - 10,000 = $30,000, founder's salary equals 30,000 x 0.05 = **$1,500** = $125/month, total annual expenses equals 10,000 + 1,500 = $11,500, total developers' fees equals 40,000 - 11,500 = 28,500, therefore each developer receives 28,500 / 30 = $950/year = $79/month on average.
2. **Conservative scenario:** Assume number of Coopereesta users is 200,000, conversion rate of 5 percent, 100 Cooperscript developers exist, annual expenses are $10,000 each for both Google AdWords advertising and web hosting. Then gross annual revenue equals 200,000 x (0.05 x 20 + 1) = $400,000, annual expenses equals $20,000, net annual revenue equals 400,000 - 20,000 = $380,000, founder's salary equals 380,000 x 0.05 = **$19,000**, total annual expenses equals 20,000 + 19,000 = $39,000, total developers' fees equals 400,000 - 39,000 = 361,000, therefore each developer receives 361,000 / 100 = $3,610/year = $301/month on average.
3. **Medium scenario:** Assume number of Coopereesta users is 500,000, conversion rate of 5 percent, 100 Cooperscript developers exist, annual expenses are $25,000 for Google AdWords advertising of 10K and web hosting of 15K, and employee wages (including founder) happen to equal developers' fees. Let x = total employee wages not including founder, and let y = founder's salary = 5 percent of net revenue. Developers' fees = x + y. Then gross annual revenue equals 500,000 x (0.05 x 20 + 1) = $1,000,000, annual expenses equals $25,000, and the following Equation (A) holds: 1,000,000 - 25,000 = 2(x + y). So net annual revenue equals 1,000,000 - 25,000 - x - y = $975,000 - x - y. Now Equation (B) holds: y = 0.05(975,000 - x - y), or 20y = 975,000 - x - y, or 21y = 975,000 - x, so Equation (B) becomes: x + 21y = 975,000, and Equation (A) is: 975,000 = 2x + 2y = x + 21y. So x = 19y, and 19y + 21y = 975,000, 40y = 975,000, then y = founders salary = **$24,375**, and employee wages = x = 19y = **$463,125**, and using Equation (A), developers' fees equal x + y = 975,000 / 2 = $487,500, so each developer receives 487,500 / 100 = $4,875/year = $406/month on average.
4. **Optimistic scenario:** Assume number of Coopereesta users is 1,000,000, conversion rate of 5 percent, 100 Cooperscript developers exist, annual expenses are $25,000 for Google AdWords advertising of 10K and web hosting of 15K, employee wages one full-time and one part-time add up to **$100,000**. Then gross annual revenue equals 1,000,000 x (0.05 x 20 + 1) = $2,000,000, annual expenses equals $25,000, let y = founder's salary and let z = net annual revenue equals 2,000,000 - 25,000 - 100,000 - y, or z = $1,875,000 - y. Now y = (0.05)z, and y = 0.05(1,875,000 - y), or 20y = 1,875,000 - y, and 21y = 1,875,000, so y = **$89,286**, and z = 20y = total developers' fees, so each developer receives 20y / 100 = y / 5 = $17,857/year = $1,488/month on average.

5. **Many Employees scenario:** Assume everthing in Scenario 4 is the same except each developer receives $3,600/year, several employees exist, and founder's salary equals 10 percent of net revenue instead of 5 percent. Let x = total employee wages except founder, and let y = founder's salary. Net annual revenue equals 2,000,000 - 25,000 - x - y = 1,975,000 - x - y = 360,000 = 3,600(100), founder's salary equals y = (1,975,000 - x - y) / 10, or y = 360,000 / 10 = **$36,000**, now 1,975,000 - y - x = 360,000, so x = 1,975,000 - 36,000 - 360,000 = **$1,579,000**.

Implementation Steps

1. Develop Cooprimote
2. Develop Picoodo for Linux
3. Use Specialisterne to hire local Android programmer on spectrum:
    - they find tech jobs for those on autism spectrum
4. Develop Picoodo app
5. Implement image sharing
6. Make pitch to DMZ tech incubator
7. Develop Android Coopereesta main app
8. Use Specialisterne to hire remote iOS programmer on spectrum
9. Convert CRE to Swift
10. Develop iOS Coopereesta main app
11. Search for angel investor
12. Without angel investor, do not renew contracts of autistic programmers
13. Develop monetizing functionality
14. Launch website
15. Purchase Google AdWords advertising
16. Develop Web Converter
17. Implement Picoodo social media
18. Implement online communities
19. Exit strategy: if necessary, release Java code of CRE on GitHub
20. Develop Psyvaspace

Exit Strategy

In case Coopereesta is not profitable, the Java (and Swift) source code of the CRE will be released on GitHub. This can be used to create standalone Android and iOS mobile apps by bundling the CRE with the Cooperscript/tags source code of each app in the Cooperscript app store.

About Us

I am Mike Hahn, the founder of Coopereesta.com. I was previously employed at Brooklyn Computer Systems as a Delphi Programmer and a Technical Writer (I worked there between 1996 and 2013). At the end of 2014 I quit my job as a volunteer tutor at Fred Victor on Tuesday afternoons, where for 5 years I taught math, computers, and literacy, and became a volunteer math/computer tutor at West Neighbourhood House. I quit that job in mid-2019. I have a part-time job working for a perfume store. My hobbies are reading and I often go for walks. I don't read books very often, but on March 19, 2021 I started reading a biography of Steve Jobs which my brother gave me. I read the CBC news website, news/tech articles on my Flipboard app, and miscellaneous articles on my phone (same screen as my Google web page). I visit my brother once a month or more. For almost 30 years I was depressed on and off (I'm a rapid cycler), but it largely vanished after I ramped up development of my previous Aljegrid project in early March 2021.