Project requirements

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Project Name	aeS

Functional Requirements

- Mobile and web
- Multiplayer game
- Playable without login
- Reading material
- Side activities, suggestions or charity. Ie; linking to other platforms
- Login/account functionality (maybe not in these mvps - but it would be required as the project grows)
- Game must bar player action when they have contributed sufficiently (max inputs)
- encourage users with ingame trivia/popups to read on the site, or travel to other platforms
- Users should be encouraged to stay on the site and enjoy the supplemental reading while they wait for the next game/round/timeslot afforded the next day.
- Users will select a number of trash items to remove on a daily basis. They will have a quota. Depending on feedback and reception of gameplay, this quota might be 1, or hundreds of items.
- In future iterations, users would have infinite actions, and instead be allowed to "pick up" clumps at a time with certain upgrades. These purchasable upgrades could be used to support monthly/annual charities. This would be a feature only available to account based users

Technical/Performance Requirements

- Web games must be capable of displaying hundreds, thousands or millions of "trash" for users to clean up. We will need to log what trash has been removed, where, when and by whom. Imagine curiosity, or the million dollar website (adds). Effectively, the game will consist of millions of clickable buttons. Each user has 1 (or more, tbd) clicks to remove trash. If enough people contribute, we should see a noticeable dent in the digital sea of trash.
- How do we represent millions of entities without bogging performance? Consider looking into solutions like agario
- backend for storing user information, or Ip for non-account tracking.
- The game must be capable of recording IP addresses for non-logged in users. This allows IP address users to participate/contribute in the game even though they are not logged in. Of course, non-account users would not receive any rewards in the future (if the game implements a community reward system.
- The game must support account functionality for users. This may not be implemented by MVP3, but the general vision would be to provide users with the opportunity to create more permanent accounts for their daily contribution
- The game should also include a means for teachers to generate multiple accounts on behalf of their students -this would allow teachers to set-up their children's account without individual emails
- If the game is popular enough - we might also remove the ip option
- Alternatively, if the game is not popular enough, we might instead provide more actions per day to an individual user (possibly hundreds). Higher quotas, etc - this would become more like a cookie-clicker idle game. This may be more effective in holding the user's attention.
- If a reward system is implemented, user may abuse the IP option and jump from VPN to VPN, artificially increasing the number of actions they have. This may not be a *bad* thing, and I certainly don't want to discourage a user's ambition. However, it maye become a problem if the reward for users is a financial one (like free commissioned art, donating to a charity, etc). It would put an unanticipated burden on the platform - one that might not be financially sustainable.