

Ideas for **MAKERS**

Lazy NFT Minter bot

Make a bot that automatically lazy mints photos as NFT . Choose either discord/slack to listen to messages on a specific channel, if the message is an image, then mint it as an NFT on a blockchain of your choice, reply with the link to the NFT on the same channel or a specific channel

Resources

- [NFT tutorial](#)
- [Discord API](#)
- [Slack API](#)

Esoteric Programming Language

Make a programming/scripting language with general programming constructs like sequential and definition/assignment statements (like int a; a =2;), logical constructs (if-elseif-else) and looping constructs (for and while loops).

One can also implement a BrainF*ck interpreter in their language to check for turing completeness.

Resources:

- [Writing an Interpreter](#)
- [Analysis of Brainf*ck](#)

Marching squares

Render implicit functions/Surfaces using openGL, webGL or processing with marching squares/cubes

Resources:

- [Marching squares](#)

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Polygon collision

Implement simple polygon collisions.

For Collision Detection: GJK Algorithm

For optimizations: Bounding Volume Hierarchies

Resources:

- [Keerthi Distance Algorithm](#)
- [GJK Collision Algorithm](#)
- [Bounding Volume Hierarchies](#)

Black Menu for social networking sites

Make a black menu for your favorite social networking site. What is a black menu? Have a look at [Black Menu for Google](#)

Resources:

- [How to create and publish a chrome extension](#)

Time limiter for social media sites

Make a chrome extension that limits time on social media sites, and blocks said sites after a fixed amount of time.

Features can include:

- Block a specific site after fixed usage per day
- Block all sites after a fixed net usage per day
- Block certain sites during certain times of the day
- Suggest productive websites as an alternative when social media sites are blocked

Brownie points out if the extension can work cross-platform (including mobile)

Resources:

- [How to create and publish a chrome extension](#)

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A Password Manager

Build a secure password manager where you can save passwords for your different logins and use them again later. Create a web extension for the same. Make sure to make it as secure as you can.

[Brownie Points] Implement automatic detection of login pages and password to be entered in the web extension

Resources:

- [KeePass – Open Source Password Manager](#)
- [What is encryption?](#)

Keyboard Heatmap Generator

Create a keyboard logger that logs inputs from the user over a period of time and generates a heatmap showing usage

Objectives:

- Should run a daemon that keeps a log of all the keyboard keys pressed.
- Create a GUI that displays heatmaps of the keys pressed.

Brownie points: Display heatmaps for various users, apps, and their combinations.

Resources:

- [Keylogger in Python](#)
- [Web application using Flask](#)
- [React Library to generate a heatmap](#)

Packet Visualizer

Create a CLI tool to visualize packet transfer using TCP/IP with ASCII characters

Objective: Create a command-line tool that takes an IP address as input and logs where and when the network packet travels.

Bonus: Draw charts or diagrams to visualize the transfer of packets using ASCII characters on the terminal.

Resources:

- [Basics of Networking](#)
- [A guide to network programming](#)
- Some tools that might come in handy: netcat, dig, arp, arp-scan, tshark/wireshark, nslookup, nmap, netstat
- Depending on what language you chose to make CLI, you'll find libraries to help you draw charts and diagrams on the terminal. It's just a google search away :)

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WallStreetBets Stock Trading bot

Make an NLP activated reddit parser that parses r/wallstreetbets and see if they include any info that can move the markets then it alerts the people subscribed to the service about what to do with that information (BUY/SELL/HOLD calls on a particular stock). [BONUS] Integrate this service with a broker that offers an API to make actual trades in the stock market (for eg. Zerodha)

Disclaimer: SDSLabs or members of SDSLabs including current members and alumni are not responsible for any gains or losses made while trading or testing on this idea. Investment/Trading in the securities market is subject to market risk, do it only at your own risk.)

Resources:

- [Example](#)
- [Coinbase API](#)
- [How to get started with NLP](#)
- [How to make a Reddit bot](#)

Automatic Resume Maker

Develop a service that lets one quickly create resumes by only inputting the required info and handles all the templating by itself.

Secondary Targets :

- Direct data import through linkedin
- Can read and filter previous resumes to extract information

Resources:

- [How to make a web app](#)

A Webserver

A basic server development framework along the lines of Flask(for python) or Gin/Chi(for golang), built from scratch using sockets. Should allow assigning handler functions to routes and be able to handle multiple requests at the same time.

Resources:

- [Guide to network programming](#)
- [Server-side website programming](#)

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Latex IDE

Create an IDE that allows easy creation, editing and preview for latex files.
[Brownie Points] Add feature to convert normal formatted text into latex.

Resources:

- [LaTeX](#)
- [Developing desktop Apps](#)

URL to PDF

Make a chrome/brave extension that converts a given url into pdf or epub format.

Resources:

- [How to create and publish a chrome extension](#)

Web Scraper

Make a tool that can gather details about someone/something by crawling websites based on certain keywords. Also, create a CLI/application console to filter the data further based on needs (example location / ip / keyword). Also store the data in a structured manner.

Resources:

- [How to make a basic web scraper](#)

Codename Spymaster

Make a spymaster bot for the popular online game codename. The spymaster should suggest a word that relates closely to its team's words while staying away from other team's cars and the black card.

Resources:

- [Codename game](#)
- [Codename Rulebook](#)
- [How to get started with NLP](#)

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Game Design Theme – Switch

The theme of "Switch" is open to interpretation, and we encourage participants to think outside the box and come up with unique and unconventional ideas.

You can approach the theme from a literal perspective, where "Switch" could refer to a physical switch, or from a more abstract perspective, where "Switch" could be used to represent change, transition, or even transformation.

Resources:

- [How to Write a Game Design Document](#)
- [What are loops in Game Design?](#)

Product Design for EdTech

The EdTech industry has experienced tremendous growth in recent years. However, despite the vast array of digital resources available, many educators and students still struggle to find and use the right tools to enhance their learning experience.

This problem statement aims to address the challenges faced by educators and students in the EdTech industry by designing a product that integrates seamlessly with existing learning tools, empowers educators to create interactive and engaging content, and allows students to learn at their own pace and on their own terms.

Resources:

- [Product Design 101](#)
- [Laws of UX](#)

Product Improvement

Have you ever thought that a product you commonly use would have been perfect only if it did "this". Product improvement is a process that involves improving existing features or implement new ones.

New features expand the capabilities of your software and its use cases. As a rule, the announcement of extra functionality causes a surge in the market and attracts new customers' attention. Your existing audience, in turn, gets a more valuable product.

Yet, adding product new functions may be tricky. You are always at risk, as fresh features may not interest either new or existing customers or if they deviate a lot from original vision of product.

Resources:

- [Designing product improvements](#)