Initial Project Ideas

Review the board documents in [Project Documents](https://highgateschool1.sharepoint.com/:f:/s/Section_HS-2023-12Q-Cs1c/Ek3BqoVE5pVJoJTHGiT-FDcBjw3mG5hfzYb9XHhbWkH8Rg?e=X5tqMA) about the requirements for the project (particularly 4.14) of the specification document.

Fill in the table below with **eight** ideas for projects that you could do. You should complete 4-6 bullet points about the idea for the project.

At this stage, be imaginative – don’t feel that your ideas have to be constrained by what you think you know how to program, we can refine the ideas later.

To get you going, I would like you to include one of each of the following as the basis for a project idea:

1. Something that goes into more detail about an aspect of Computer Science Theory.
2. Something that links into another subject that you are doing for A Level.
3. Something that would help someone automate or do their jobs better.
4. One investigation: “undertake an investigation of an area of interest that requires a significant amount of programming”.
5. Something fun!

Focus on ideas for the moment, but you may want to jot down thoughts that you have about technologies that you can use, or helpful links that will help you to research your idea

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| --- | --- | --- | --- |
| Project Title | Brief Idea | Technologies involved | Research notes and links |
| Fact check Indexer | **A program that indexes through databases that are used in investigations and fact checks to see if the investigation is more or less truthful.** | * **AI (Artificial Intelligence)** * **Databases** |  |
| The ABC conjectures | **Write a program which solves the ABC conjecture. Win the Nobel prize for maths. Bosh.** | * **Python** * **Maths** |  |
| Symptom-to-diagnosis | **You can input the symptoms into the program, and it outputs a list of what you could have and what to do about it.** |  |  |
| Personalised news site | **You can sign up and post full articles on something you’re interested in. All articles will have to be fact-checked and proven, but it could result in a positive spread of information and education.** | * **Verification** * **User Management** * **UI** |  |
| Sheet Music Converter | **You play a note, and it converts it into sheet music.** | * **Microphone** * **Sound recognition** |  |
| SportsMania – Become the ultimate athlete | **A game where you and 4 other people get put into a team and play against another team of 5 a 90-second game plays out where each player must** **make a decision until the game can progress. – Football.**  **Could adapt it to other sports.** |  |  |
| Minits/Slots app | **It’s a social media app/website. The idea is that many people record/upload a photo or a video to a pool. Every 60 seconds, a random person’s submission is chosen to be displayed to every single person on the website/app.** | * **Database** * **HTML/CSS/JS** |  |
| Workout Structurer/Logger | **You can create programs for each of your workouts and see your one-rep maxes, and your personal records. You can then create a leaderboard with your friends / global.** |  |  |
| Playlist Battle | **You and your friend can choose one of your own playlists, or an album you like, or play from scratch. If you've chosen a playlist or an album to draft songs from, you take it in turns in drafting a song from that playlist. You organise your picks in order from worst to best, and then the rating game begins. You get your opponent’s songs in a random order, and you rate them on a scale from 1-10. Every time a new song comes up, a small part of the song will play in the background so that the player gets an idea. Once all of the songs have been rated, the final stage begins. Both drafts are reverted back into their organised order, and position by position (from worst to best) the other person’s ratings are revealed. The scoring can either be:**   * **Total Ratings vs Total Ratings** * **The winner of each battle adds one to the total of the person’s score** * **Average Rating vs Average Rating** | * **Spotify API** * **Algorithm** | * **Could use something similar to Spotle.** |
| Musician Finder | **Find musicians for your band or duet and filter by skill level and you can upload your own performances / training to verify.**  **LinkedIn / Fiverr for musicians** | * **Messaging Algorithm** * **Recommended musicians** |  |

**Example technical skills**

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**Examples of Projects and Algorithms**

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