Functional Requirements

1. Optional account system for login
2. The application must have a large number of options for relevant PC components/specs (CPUs, GPUs, RAM, etc)
3. Must display a reasonably estimated market price for each PC component/spec
4. Must display the total price of the PC build (all the components/specs added up)
5. The final build should output estimated framerates on popular video games
6. The final build model should be able to be turned on to see what the rig looks like when it is running
7. The device used to run the application should be powerful enough to handle the smooth demonstration- an old computer or phone may cause the animations to lag
8. A warning should be displayed if the device being used is not powerful enough to handle the live demonstration smoothly
9. The application should notify the user if any components are missing/if the build is incomplete
10. The application should explain to the user if any components are incompatible with the build- for example, a large motherboard may not fit inside a small case
11. The model of the build should be "rotatable"- the user should be able to drag and rotate the model to view the build from any angle
12. Users should be able to search specific PC parts on the application
13. When searching for specific PC parts, incomplete words should display suggested products based on what was already typed to save the user time
14. A description of each spec/component/part should be displayed when the mouse is hovering over it
15. Links to the official manufacturer's website of each PC part for more details
16. Users should be able to save any designs in progress
17. If a particular spec is not listed/available on the application, users should be able to request that that particular spec be added to the application
18. There should be a tutorial on how to use the application, for new users that are unfamiliar with the application and/or building custom rigs
19. The build should be sequential- for example, users will not see a model for their custom rig until they have selected a case to put the components in and a motherboard for the specs to be placed on

20. There should be an option to generate a randomized build within a price range set by the user
21. There should be a feature where users can send feedback to the developers
22. There should be a filter for prices (personal budget) & specific component manufacturers (AMD, Nvidia, Alienware, etc)
23. Feature where stats of specs can be compared side-by-side
24. Dark & light mode for users' personal preference

Non-Functional Requirements

1. The design of the website should be aesthetically pleasing- it shouldn't look "cheap", text font should be clear but not basic, etc
2. Blank space should be minimized and used to make features and text appear larger and more clear to the user.
3. Features and text on the application should be clearly visible within "sitting distance"- users should not have to constantly be zooming in and out, or leaning forward to read or view the model
4. No typos on the application, otherwise the application would look unprofessional and/or incomplete
5. When the final build model is running, animations should be played at 60 frames per second for a smooth demonstration
6. The model should load relatively quickly (less than 10 seconds)