

System Vision Document

Keith Holcomb

PC Building App

Problem Description

PCs are an essential to productivity and staying connected on the web. As time has gone on, PCs have been getting better and better, but they've also become more complicated for most people to understand. There are a lot of different parts that go into a PC, and it can be confusing for someone that wants to make their own PC. It is important that the PC Building App is able to have users create an account and make a PC Build list, which would show what parts the user has picked for the PC. The PC Building App will need to provide info about specific PC parts from popular brands that user's may plan to purchase. The PC Building App will also need to check compatibility between the parts the user has selected to ensure they will work when built into the PC. The PC Building app should also have a way to link each part to its associated product page, so the user can purchase the part(s).

System Capabilities

The PC Building App should be capable of:

- Creating and storing user accounts as a table in the database.
- Collecting and storing information about different PC parts as a 2nd table in the database.

This is not meant to be an extensive list of products, but a small general/example list of popular or affordable parts.

- Creating and storing PC Build lists created by the users as a 3rd table in the database.
- Use of a linking table, which will hold the id of a PC part and the id of the PC Build list it belongs to, as well as additional info (such as quantity).
- Providing guidance to users who are creating lists, such as checking PC part compatibility, or recommending parts to add to the list.

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The PC Building App's specifications:

- Use PostgreSQL to create and manage a minimum of 4 tables; 1 for user accounts, 1 for user created lists, 1 for PC Parts catalogue, 1 for linking PC parts from the catalogue to user created lists.

- Use Java & JavaFX to handle the PostgreSQL database for the front-end.

Ex. A class for user created lists would be used to create a list object that displays the data of a user created list within the application.

- Use Java & JavaFX to create a GUI capable of having the user create/login-to an account, create and view lists, view the catalogue of PC parts within the application.
- A user registered in the account database should be able to create a PC Build List. This List will be created empty, and display each part that the user needs to add to the list.

Business Benefits

The deployment of this PC Building app will provide the following business benefits:

- Simplify the process of interested users in finding PC parts for their PC build.
- Educate users on the basics of building a PC, such as the necessary parts and the compatibility between different parts.
- Project database can be expanded to maintain correct and current information about PC parts and their manufacturers, such as relative price.
- Project can be expanded to provide affiliate links to product parts' store pages for users to potentially purchase from.