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Data Structures

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**Analysis**

The list data structure is very simple, but very useful. It’s like a bag with more features, allowing us to find items in specific indexes. It could be used anywhere an array would be required, and would provide for most uses of an organization of elements.

If the list data structure did not exist, a bag would be the closest thing to the list. We would need an external, higher level way of keeping track of which element exists in the bag, allowing us to use it like a list, but instead searching for the element, not the index. It would be a lot more coding and headache to implement that.

**Summary**

1. We divided up the work as usual: Johnnie and Matt worked mostly on the project, while Eddie finished up the data structure List. We discussed what game to make and how to implement it beforehand, and Eddie looked through the code and made sure to understand how it worked before he wrote the write-up. Coordination was done via github as usual.
2. We ran into some problems with the data structure (bugs), and was thinking of ways to improve the usage of enums. We tried to link numbers with enums so that we would not have to call “TEN”, or “JACK” every time we constructed a new card or wanted to test something new. This is something that’s still a work in progress. Nothing else was a problem, and we just discussed how we could improve small bits of the project
3. We learned more on how to make a turn-based game, and how to have the game interact with different players at a time. Usage of enums was a thing we learned for the first time through this lab too, and there’s no doubt that we will be using it in the future for various purposes.
4. The assignment could have a more solid expectation of the students, as a “card game” could be extremely simple (like blackjack) or extremely complex. Also, having a bonus objective of making the game be able to be played across different computers could be nice, as our group probably would have tried to make that work.