# Individual Capstone Assessment – Jessica Cvetkovska

My senior design project is in collaboration with Monica Escobedo Barahona and Aiden Frank, and we will be making a tool called Packing Pal to help users make and share highly customized packing lists. The tool will be built using React and will utilize AI technology, as well as a database. We found that when packing for a trip, it can be really hard to come up with a complete list of everything you need to pack. Sometimes you completely forget stuff, and depending on the duration of the trip, that can be incredibly difficult. The project will be designed primarily for use with camping trips but may be expanded to other types of trips if time permits. One of the main focuses will be to quickly be able to share created lists to platforms outside of the tool.

There are several courses that have relevant coursework or projects that will be helpful in guiding development of this project. Perhaps the most relevant is CS4092 – Database Design and Development, in which there was a major group project to create a virtual storefront, which consisted of a relational database, the backend of the site, and the front end of the site. My team utilized React for the backend, which was a large portion of the reason why we decided to utilize React for this project. Another course that I feel was very relevant is EECE3093C – Software Engineering, due to the main focus of the course being project management. The entire course centered around a semester-long group project, going through many of the same phases of development and planning that are prevalent for this senior design project. As such, the curriculum here at UC has definitely prepared me for undertaking this project.

My co-op experiences, on the other hand, were very different from my academic experiences, but still incredibly relevant, nonetheless. I have worked at Northrop Grumman in the role Co-Op Technical for all five of my co-ops, with a myriad of experiences. Three of the five co-ops heavily centered around all things testing, including running manual tests, writing test reports, standardizing and updating documentation, creating and rewriting test procedures, and writing a few automated test cases as well. My other two co-ops dealt more with developing scripts to backup key infrastructure. As far as non-technical skills are concerned, I came out of my shell to take charge of my work and lead by example. In my most recent co-op, for instance, I was delegating tasking to several of my teammates to ensure that we could meet strict deadlines on time. As such, I became fairly familiar with opening and closing user stories and also became a better communicator in the process. I expect to apply these experiences in this senior design project to make sure that we stay on track throughout the semesters to make sure we meet all our goals and objectives.

My motivation for the project stems from the dilemma of going on a trip and having to throw together a list to pack, which is always in flux with the limitations of the bag space. In addition, making sure I didn’t forget anything important is also a challenge as well! With some trips taking upwards of 30-40 individual items, it can be very difficult to make sure I have all the things I need. I’ve also experienced the feeling of not knowing where to start for certain kinds of trips. While we are focusing primarily on camping trips to start, the goal is to expand to different kinds of trips, and I feel that this would be a big help for myself and for others as a whole. An easy-to-use web application like Packing Pal can definitely alleviate the stress of packing since it can help create a list for you, being tailored for different kinds of trips and having ways to store and export the created lists.

The way that I envision the solution to this problem is a website that features an AI chatbot that an end user can give a camping trip scenario to and have a list output from the chatbot that can then be used as advice to go off of. The list output can also be exported to other apps or saved to the device, and a user can register for an account to make sure the previously created lists aren’t lost. I feel that the project is fairly open-ended, as there are a lot of design and implementation decisions that are yet to be made. There are also many additional features that may or may not be implemented depending on time and scale. Being “done” in the loosest sense is making sure that the product is both functioning and adequately solves the problem that the product is trying to fix. I feel that additional quality of life features will be the difference between a mediocre product and a good one.