My solidworks project was making a replica of a Viking ship, inspired by the Gokstad Ship from the Oslo Viking Museum. I decided to pick this topic after learning about the Gokstad and Osberg ships in my art history class and finding the designs of the ships really fascinating. In order to replicate the unique shape of the ship I split it up into 6 main pieces (the middle body, front end, back end, front cap, back cap and mast. For the caps (flat wooden pieces at the very front and rear of ships) and the mast I used the extruded boss feature in order to create the specific shapes. For the mast I also had to use the extruded cut feature to simulate the jagged edges were the original mast broke. To create the curves for the main body of the ship I needed to use the lofted base tool. In order to capture the way the ship curved upwards I also needed to take advantage of the flex feature on the front and rear ends to capture the way the ship smoothly transitioned to a point, after these features were made I then shelled them in order to give it the feel of the real ship.

Making the ship turned out to be much harder than I thought it would. The hardest part by far was trying to recreate the shape of the main body of the ship. Trying to take the really complex and
curved 3d shape and then transpose that into two dimensional sketches which when lofted would give that shape was really challenging. What made this already difficult task even more was the fact that solidworks would complete change the 3d result of the loft depending on which point from the sketches you choose. To work through all of the different possible options and come out with a ship that had clean lines and no incorrect additional twists was really a struggle. I finally managed to capture the shape of the ship by splitting the body into the 3 different sections and then bending the ends. Once this was done it wasn’t too hard to make the end caps the proper size or add in the mast. Working on the personal project definitely expanded my knowledge of solid works a lot. It helped me really master the lofted base tool, and I was able to get a much better understanding how it worked after much trial and error. I also gained a much better understanding of why fully dimensioning is so important in solidworks, when I had to estimate the dimensions myself and try to ensure that the pieces fit well together and were the right shapes and sizes.