For this project I decided to make a connect 4 game. I initially started by making a 2 player connect 4 but later decided to add a human vs computer game mode. I started by making the basic functionality for the 2 person game. To do this I made functions which test if the user input move was legal. Function which placed a counter in a column of the board and a function which tested if the last move resulted in a connect 4. These basic game mechanics made up the basic functionality of the first iteration of the connect 4 game. Iterations of each function were also created and tested prior to putting the function in the connect 4 driver. With the basic functionality of the game coded I decided to add computer moves into the game. The computer moves are generated by simulating hundreds of games bases and averaging the number of wins and losses to find the move with the highest probability of wining. A difficulty scale was then later added which varies the number of simulations carried out by the computer before it averages the best move. the largest road block I ran into during the coding was a small error with running hundreds of simulations. I initially defined the simulated board prior to running the for each i in (number of simulations). Which resulted in the same board being used through all simulations. this error was found by putting disp(“won”), disp(“lost”) or disp(“drew”) at places of code which only run if the computer won lost or drew in the simulation. I then found that many of the simulation outcomes were the same and realised this was a result of the final board which resulted In for example a loss was carried over to the next simulation. After this error was fixed the computer bot became surprisingly difficult and was wining most of the games I played against it.