This project will show the benefits of early investing. It will be utilizing two different types of code. One of the code types I will be using is the Monte Carlo simulation. I will also be utilizing an “average investor code” I will create this by either modifying existing code that simulates investors already or creating a custom code. Either way the end result of this code will try to simulate an average investor with its flaws and irregularities that an average investor would have.

There is a good reason I will be running this project with a Monte Carlo. The Monte Carlo simulation eliminates the flaw of averages and helps get a more accurate picture of the future. I will be plugging the Monte Carlo simulation into the average investor code that will represent early and late investors to show to most likely growth in the future.

Now I’ll be going into a little deeper explanation of the average investor code. So the average investor code will run under a preprogramed portfolio with the same buy and sell parameters to simulate the same risk tolerance. They will also be choosing from a list of stocks and their data. This data will be generated from the Monte Carlo simulation. They will not be buying the same stocks because no two investors will be buying the exact same stocks due to many circumstances.

There are a few things I need to take into account when it comes to “average investors”. Humans are very flawed beings that are not always rational. All run on their emotions to some degree. Emotions especially run high when it comes to money and risk. Investing involves both which causes a lot of stress and bad decisions so my results will not be one hundred percent accurate, but they will be as accurate as I can possibly get them. Do not let that information get you down on investing. But there are habits that can help combat this.

These habits that people can do to be a successful investor are as follows. Make a goal, being realistic, investing profits, and investing what you can afford to lose. There are many more, but I feel these are some great rules to make for yourself. They will help you in the long run both keep and make yourself money. Making goals helps set a good area for you to sell your assets either to makes some profit or to prevent more losses. Being realistic applies to many of these habits. If you are not realistic when setting goals then there is no point in setting goals because they essentially become dreams and most likely will not come to fruition. Investing profits helps grow more profits. An easy way to think of this is by thinking about gardening. If you grow one apple tree and eat all the fruit and do nothing with the seeds you will only have a set amount of fruit till the tree dies. But it you take the seeds and plant more trees your harvest will get bigger and if one tree dies it will not be as devastating to you because you have more trees to produce for you. Same logic applies to investing, you make ten percent on an investment, reinvest it and make another ten percent not only will you be making another ten percent on your original investment you will also be making ten percent of your original ten percent. Eventually you will get enough money to make another investment from this and then you can have more outlets for income and if one dies then it will not be as detrimental to you because you still have an income. Where if you did not reinvest your income and spent it somewhere and your investment dies then you do not have any more income coming in and it could be devastating for you. Finally investing what you can afford to lose. You should only invest what you can afford to lose because investing is risky as I stated earlier. If you invest money you need to survive and lose it you most likely will have some serious repercussions such as going hungry, freezing, being homeless, etc.

Some bad habits to look out for can include focusing too much on the short term, following the herd, not staying with your goals/plans or not having any, relying to much on past performances, buying too high, timing the market, not diversifying, and checking your investments too often. If you focus too much on the short term it will hurt you in the long run. it can hurt you in many ways such as selling off too early and taking a big loss, making you focus on a quick cash investment (buying a stock that will make you a fast five percent gain instead of going for the long term twenty percent gain), or not investing because you are worried about money in the short term. Following the herd will not leave you much profits. By the time the rest of the herd starts to buy a stock most of the profits that can be gained from an investment will have been eaten up already. If you want to get some larger profits you will have to go off the beaten trail so to speak. Abandoning your goals will make you lose focus on what you want form a certain investment or the entire portfolio. When you lose focus it opens you up to some major losses either by going into a bad investment or leaving a sound one. And not having a plan at all opens you up to even more losses. There have been many companies that have done well for themselves in the past and gone bankrupt an example of this is blockbuster back in the 90s they were neck and neck with a major player from today (Netflix) but because of their unwillingness to change took them from being a major competitor in the home entertainment business to only having one store left and running as a tourist attraction. Which shows just because a stock is doing great right now doesn’t mean it will always be doing so well as technology and society progress and change. Buying too high can be tied into following the herd. Often times when the herd starts to buy a stock the price has gone up to an extreme degree and will most likely only go down which makes you lose money. Timing the market does not work because of how unpredictable the market is. There is no set schedule to the market and trying to make a buy and sell schedule can be risky you should always do your own research on a particular stock or market before investing. Not being diversified can cause you major losses if the area of the market your in goes down where if you are diversified that downward shift will not hurt you as much as it could have. Checking your investments too often can cause you to panic sell or buy either of which is not a good deal for you. Selling to early can either make your losses reality or make you lose out on some high profits buying in rush can make you buy a bad stock or buy a stock at way to high of a price which was discussed earlier.

There are many investment strategies such as buy and hold investing, growth investing, and value investing. You must understand each of these strategies if you wish to use them to the best of your abilities. Starting out with the simplest on paper buy and hold investing. Buy and hold investing is pretty well explained by the name, you find an investment (most likely a stock) that you think will do well in the long term then you buy the stock and hold it. This type of investing takes a lot of will power and patients along with research and evaluation skills. If you do not possess any of these this investment strategy has greater potential to harm you in the future. Growth investing is where you find newly emerging companies that are growing at a much faster rate than the rest of the market and invest in them. Some companies can produce great new services that can’t be easily replicated while others may be only experiencing temporary successes. Growth investing is a little more risky but has much more room for profits and losses than a more established company. Value investing involves looking into a investments true value. The goal of value investing is to find a stock that has been undervalued, buy it, and wait for the price to catch up to the real value of the investment. Its almost like bargain shopping. This is very hard work to find a company like that. It involves a lot of research to find such a investment.

As mentioned earlier there multiple types of investments such as stocks, bonds, mutual funds, and index funds just to name a few. You must also understand what each type of investment is to effectively invest in it. Stock are small parts of companies that you can buy in hopes that the company will succeed and grow to increase the price of the stock. Bonds are loans to a company of the government made by the investor, these loans are paid back with interest over time. Mutual funds are buying shares of another portfolio, you put money into a portfolio for professionals to manage then you receive the profits or losses from the portfolio based on what percentage of your money makes up the portfolio. Mutual funds are slow growing when you compare them to stocks but faster than bonds. An index fund is very similar to a mutual fund except it is managed by a program that says when to buy, sell, or hold.

A desirable rate of return on a portfolio is simply put as out preforming the market. A more in-depth description of this is gaining a larger profit than that section of the market and the inflation costs. You should set a goal for how much profit you want to make over the market and inflation this goal should also be realistic along with setting how much risk you are willing to take on. Some data you can rely on as a general measurement for the market is the S&P 500, the Dow Jones Industrial Average, and the NASDAQ. These are major market indicators that can gauge the general health of the market over both short and long periods of time. Using their historical data can help set your own goal because it gives you an idea of what you want to beat. Along with that you should also estimate how much inflation will affect your money while investing. With that you also should estimate your costs of investment. Doing all of this can help set your own reasonable estimate of your “break even point”.

It isn’t a bad idea to have some extra cash on hand to invest (best to keep it in a place that can give you interest and be transferred to stock quickly) with the market being such an unpredictable beast there can be some great investment opportunities that can pop up acting quickly on those opportunities might be able to make you a lot of money. But as stated earlier you should only invest what you are able/willing to lose because these pop up investments can be risky. Generally speaking though the more risk the more rewards you can reap.

Starting early has been shown to make people more money in the long run. if you start investing at a young age and keep investing you will be much better off than someone who is putting 2-3 times more into their portfolio because you will have been getting compounding gains. These gains are difficult for a average person to make up with pure capital.

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from original rough draft

this project is to show the benefits of early investing. in order to do this we will have to first get a few things coded. for instance the code to represent a investor (which we should be able to manipulate to do both early and older investors). the code below is a example of what the investor code could look like. i will however have to edit a few things such as how "risky" the investors will be, that would inclued at what price change would have to happen to buy or sell plus a "panic" option for when the price drops a large amount in one day and a "half profit" option so if the price jumps a large amount in one day the investor code will sell half of its investment in that stock to try to solidify its gains. how much money will be added to the investors portfolio and when it will be added. along with the amount of periods the code will run until it stops (either in the investor code or in the monticarlo code). along with adding in a "random stock buy" option to help represent a "gut feeling" that people sometimes get (again either in the investor or monticarlo code.

now that we have our investor code we need to create the monticarlo code. this code will randomise a few factors and run the investor code a great number of times. this will bipass the flaw of averages and get us a better/more likely view of what will happen to each investor code. ther might be multipule codes of monticarlo working at the same time with each investor code. one to show the accuracy of the code to the actual history of the stocks, and on that will be running in the future that will show the most likley possiblity of each investor for the future.