This class is made for the purposes of Monty carol experiments based around a deck of cards. There are methods for deck creation, randomly making rands from the deck evaluating hands for different criteria. There are two different versions of Monty carol problems. Both of these are based on the Pokémon collectable card game. The first one takes a deck with 1 Pokémon card and the rest of the cards energy and evaluates the probability of pulling a Pokémon in your opening hand. After 1000 iterations one energy id removed from the deck and another Pokémon is added in its place. The process is then repeated to try and find the most optimal numbers of Pokémon to have in a deck. The Second Monty carol test looks at a deck is created with 15 Pokémon and 15 energy; the rest is made of trainer cards one of which to start is a rare candy. It will then run 1000 iterations to see how many opening hands start with a Pokémon and a rare candy. The deck will then loose one trainer card that will be replaced with a rare cand. This will then tell the optimal number of rare candies a deck should have.

First Monte Carlo Assignment:

A graph showing the growth of a pokemon

Description automatically generated

Second monte Carlo

A screenshot of a graph

Description automatically generated