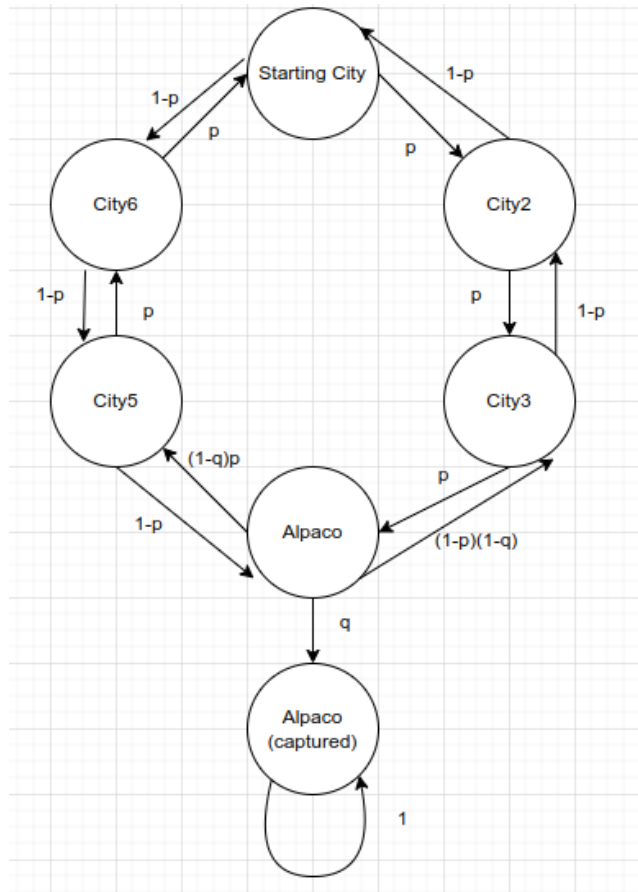




1. [4] A donkey was walking all by himself in a circular path between 6 cities (each city has a path to the two closest cities in the circle). Assume that the donkey walks in the clockwise direction with a probability of p . One of the cities called Alpaco, the one farthest from the starting location, had strange people that would keep the donkey forever if they could catch it with a probability of q .
 - Draw the state space of the donkey's presence in the 5 cities.
 - Find the recurrent classes of the chain.

Solution:



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- Only the state of (Alpaco - captured) is a recurrent state and the only recurrent class. Because when the donkey becomes captured in Alpaco, it can never go to any other state.