Assignment 1

Group 1

November 22th, 2020

Problem 1

a

Markov chain criteria:

1- The probability of being in a state only depends on the previous state.

2- It's a stochastic process.

$X =$ The chain hits state j at time n

X_n is the scenario at time n

All states have finite expected return times and are communicated with each other, also the MC is irreducible, therefore its stationary distribution is **unique**.

b