Markiv_Example_

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Effect of advertisement for new product

Introduction

When the company decide whether they advertise some product or not, they compare the effect of the advertisement. And if they do not have a promotion for the product, the product will lose its popularity. The effect of the advertisement is also decided by the type of the advertisement.

Problem

MS company release new product and plan to promote for this product. There are three choices: Youtube advertisement, SNS advertisement, do nothing. State 1 means the people who do not know the product or be willing to buy the product; 2 means the people who sometimes buy the product; 3 means regular customers. The diagram for each effect is below. Make an optimal policy.

- $State = S = \{1, 2, 3\}$
- $Reward \quad R(1) = 0\,, R(2) = 100\,, R(3) = 1000$

If advertisement cost and number of customers are given, we can make a optimal problem. and we also have to think about advertising using both Youtube and SNS in same time. I think it need to think about differcy of results from different duration.
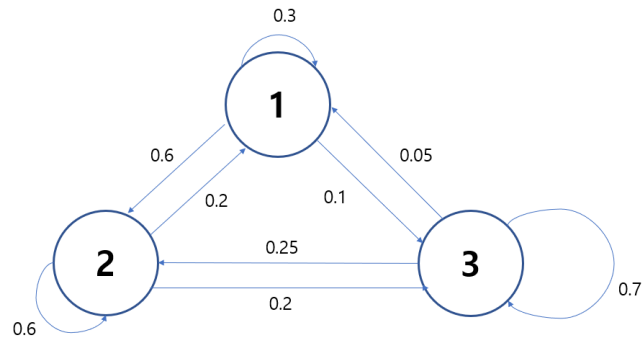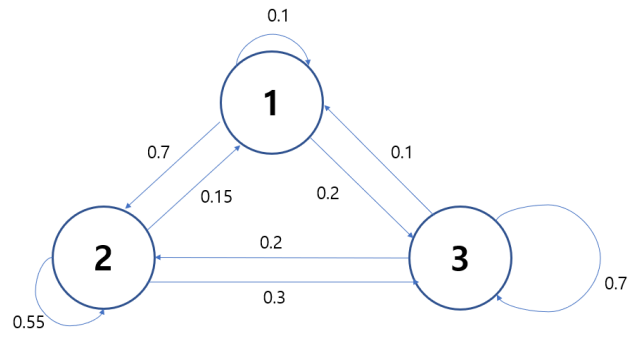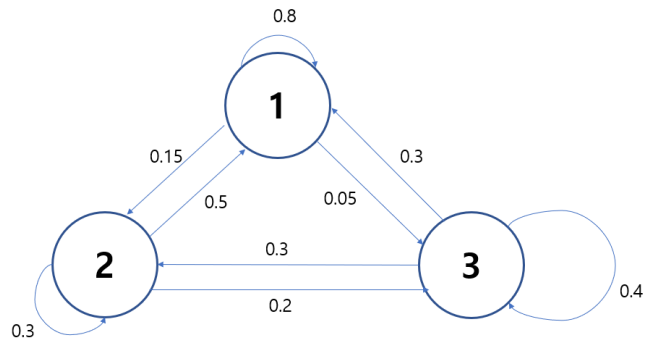
Figure 1: Youtube

Figure 2: SNS

Figure 3: None