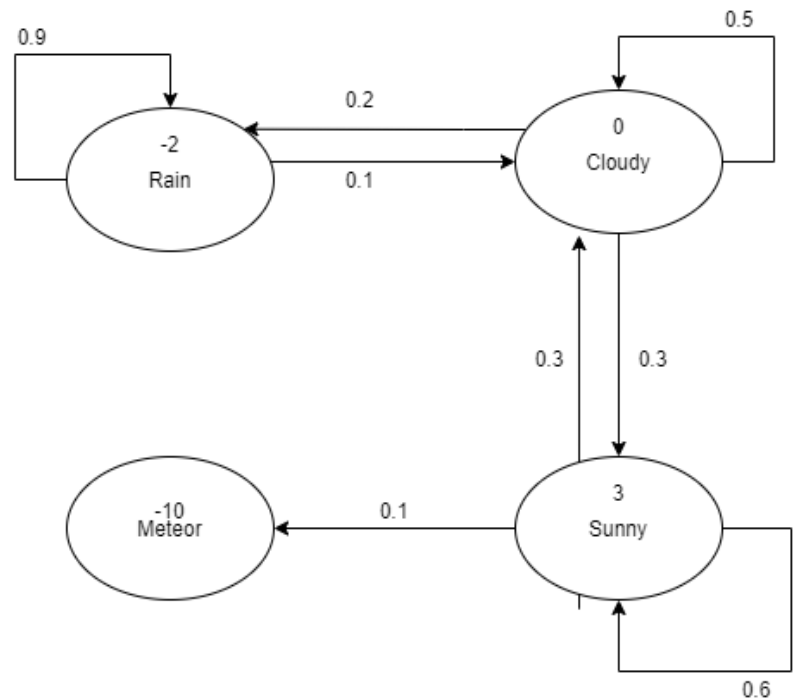


Opdracht 1.1, 1.2:



Opdracht 1.3:

$E = C \rightarrow R \rightarrow C \rightarrow S \rightarrow M$

$G = 0 - 2 + 0 + 3 - 10$

$E = R \rightarrow R \rightarrow C \rightarrow S \rightarrow S \rightarrow M$

$G = -2 - 2 + 0 + 3 + 3 - 10$

Opdracht 1.4:

| Iter | Rain | Cloud | Sunny | Meteor |
|------|-------|-------|-------|--------|
| 0 | 0 | 0 | 0 | 0 |
| 1 | -1.8 | 0.5 | 0.8 | 0 |
| 2 | -3.37 | 0.63 | 1.43 | 0 |

Iteration 1:

$v_{\text{Rain}} = \text{Max}(0.1 (0 + 1 * 0), 0.9 (-2 + 1 * 0))$

$v_{\text{Cloud}} = \text{Max}(0.2(-2 + 1 * 0), 0.5(0 + 1 * 0), 0.3(3 + 1 * 0))$

$v_{\text{Sunny}} = \text{Max}(0.3 (0 + 1 * 0), 0.6 (3 + 1 * 0), 0.1 (-10 + 1 * 0))$

Iteration 2:

$v_{\text{Rain}} = \text{Max}(0.1 (0 + 1 * 0.5), 0.9 (-2 + 1 * -1.8))$

$v_{\text{Cloud}} = \text{Max}(0.2(-2 + 1 * -1.8), 0.5(0 + 1 * 0.5), 0.3(3 + 1 * 0.8))$

$v_{\text{Sunny}} = \text{Max}(0.3 (0 + 1 * 0.5), 0.6 (3 + 1 * 0.8), 0.1 (-10 + 1 * 0))$

Opdracht 2:

| Iteration | State 0 | State 1 | State 2 |
|-----------|---------|---------|---------|
| 0 | 0 | 0 | 0 |
| 1 | -0.1 | -0.1 | 0 |
| 2 | -0.2 | -0.2 | 0 |
| 3 | -0.3 | -0.3 | 0 |
| 4 | -0.4 | -0.4 | 0 |
| 5 | -0.5 | -0.5 | 0 |
| 6 | -0.6 | -0.6 | 0 |
| 7 | -0.7 | -0.7 | 0 |
| 8 | -0.8 | -0.8 | 0 |
| 9 | -0.9 | -0.9 | 0 |
| 10 | -1 | -1 | 0 |
| 11 | -1.1 | -1 | 0 |

Iteration 1:

$$S_0 = \text{Max}(-0.1 + (1 * 0)) = -0.1$$

$$S_1 = \text{Max}(-0.1 + (1 * 0), -1 + (1 * 0)) = -0.1$$

Iteration 2:

$$S_0 = \text{Max}(-0.1 + (1 * -0.1)) = -0.2$$

$$S_1 = \text{Max}(-0.1 + (1 * -0.1), -1 + (1 * 0)) = -0.2$$

Iteration 3:

$$S_0 = \text{Max}(-0.1 + (1 * -0.2)) = -0.3$$

$$S_1 = \text{Max}(-0.1 + (1 * -0.2), -1 + (1 * 0)) = -0.3$$

Iterations tussendoor zijn niet bijzonder genoeg om allemaal uit te werken.

Iteration 11:

$$S_0 = \text{Max}(-0.1 + (1 * -1)) = -1.1$$

$$S_1 = \text{Max}(-0.1 + (1 * -1), -1 + (1 * 0)) = -1$$

Ik ben na iteratie 11 gestopt met itereren. State 1 en State 2 veranderen niet meer en als je de greedy policy toepast zal er ook niets meer veranderen hoelang je ook verder itereert.