

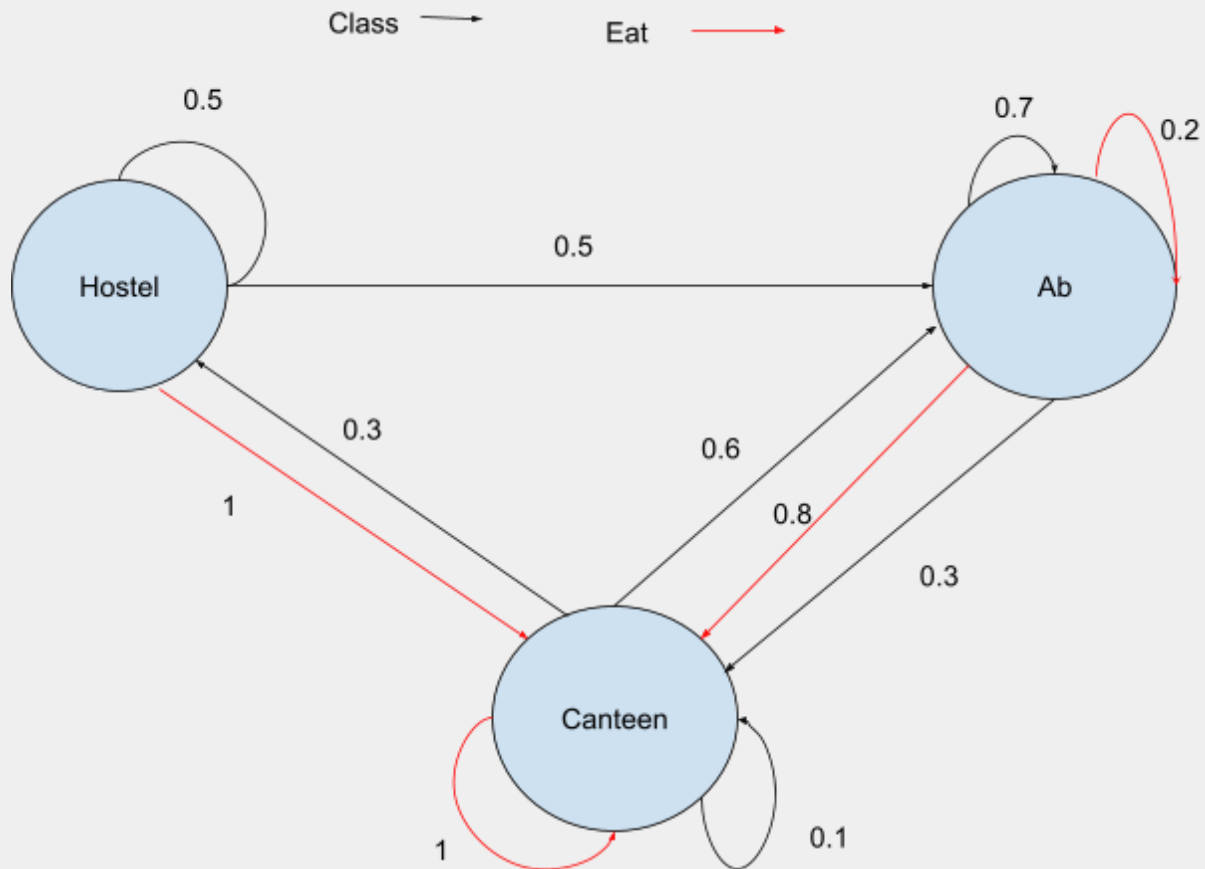
Assignment 1

Q.1

TRANSITION PROBABILITY TABLE

Current State	Action	Next State	Probability	Reward
Hostel	Attend Class	AB	0.50	-1
Hostel	Attend Class	Hostel	0.50	-1
Hostel	Eat Food	Canteen	1.00	-1
AB	Attend Class	AB	0.70	+3
AB	Attend Class	Canteen	0.30	+3
AB	Eat Food	Canteen	0.80	+3
AB	Eat Food	AB	0.20	+3
Canteen	Attend Class	AB	0.60	+1
Canteen	Attend Class	Hostel	0.30	+1
Canteen	Attend Class	Canteen	0.10	+1
Canteen	Eat Food	Canteen	1.00	+1

STATE DIAGRAM



Optimal Values and Policy With Value Iteration

Optimal Values :

Hostel: 18.951369393117425

Academic Building: 20.94056457250515

Canteen: 19.807443641628296

Optimal Policy:

Hostel: Attend Class

Academic Building: Attend Class

Canteen: Attend Class

Optimal Values and Policy With Value Iteration

Optimal Values :

Canteen: 19.807443641628296

Canteen: Attend Class

Q.2

