

KTH- ID 2209 – Distributed Artificial Intelligence and Autonomous Agents

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Task 3:

Payoff matrix

Suppositions:

For Artist Management Agent:

1. Selling low quality product gives maximum payoff.
 A_{max}
2. Selling high quality product gives low payoff as compare to selling low quality product.
 $A_{max} > A_{low}$
3. Not selling low quality product gives low payoff as compare to selling both high and low quality product.
 $A_{max} > A_{low} > A_{lower}$
4. Not selling high quality product gives lowest payoff (because of production costs).
 $A_{max} > A_{low} > A_{lower} > A_{min}$

For Profiler Agent:

1. Buying high quality product gives maximum payoff.
 P_{max}
2. Not buying high quality product gives less payoff.
 $P_{max} > P_{low}$
3. Not buying low quality product gives less payoff.
 $P_{max} > P_{low}$
4. Buying low quality product gives minimum payoff.
 $P_{max} > P_{low} > P_{min}$

Artist Management Agent

Profiler Agent	High quality	Low quality
Buying	(P_{max}, A_{low})	(P_{min}, A_{max})

Not buying	(Plow,Amin)	(Plow,Alower)
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Nash equilibrium:

(Plow, Alower) is Nash equilibrium.