I choose the Option 1
```
Develop a custom heuristic (must not be one of the heuristics from lectures, and cannot only be a combination of the number of liberties available to each agent)
```

A simple custom heuristic search for the knight, here are the key ideas. I named the heuristic method as Quadrant Heuristic
- If I am the first player, I will choose the center location, says 57, as the first move.
- If I am the second player, and in this situation I will choose the open liberties from the opponent, at most have 8 candidates. The more liberties they have the higher probability might be chosen.
- At other moves, the main thought is I split the board into 4 quadrants, (*e.g. I, II, III, IV*), the program will judge the self player current locate in which quadrant, and his correspond liberties will fall into the same quadrant score higher. The aim is to force the opponent move into the other quadrants and moves ahead with one direction. For example as the opponent always chooses the NNE direction, then his road will become narrower and narrower. The heuristic just want to be priori his opponent occupy the best location.
- The total score are the sum of length and each legal liberties' score

There are results of matches

			MiniMax Player				Greedy Player			
	Match Rounds	Is Fair Match	Match Time(s)	Max Play	Min Play	Win Rate	Max Play	Min Play	Match Time	Win Rate
Quadrant Heuristic	10	TRUE	322.58	77	39	22.50%	69	59	350.1	50%
Quadrant	10	FLASE	165.49	71	47	10%	69	59	176	50%
Quadrant	20	TRUE	637.26	76	46	25%	69	59	686.7	50%
Quadrant	20	FLASE	316.68	74	50	15%	69	59	347.9	50%
Quadrant	1	FLASE	18.65	72	62	50%	69	59	17.81	50%

Summary
The win rate is not very high, not as the though has not completed totally, but the complexity of the 8 open liberties, when self player turn it can only occupy one location, the others is free for opponent, so it is hard to limit opponent move toward one direction, even one quadrant.
So the though can be improved in the future, I hope it come soon with new methods and algorithm.