**Hello\_wolf @ 1st International Aiwolf Contest**

=Concept=

This program was created based on “Romanesco” that is finalist in 4th Aiwolf Con-test(2018). ” Romanesco” was created based on cndl that is winner in 3rd Aiwolf Con-test(2017). “cndl” created his original estimate algorithm with Naive Bayes classifier and “Romanesco” arranged it and added random action patterns. I changed their action, particularly in 5 player game, pattern by adding new pattern or deleting exist patterns. In 5 player game there is a bigger difference in winning rate than in 15 player game. I thought difference of actions that each agent was implemented originally makes greater influence. See their description for details.

=Development Environment=

Java SE 8 (java1.8)

Class Pass [com.hello.GreetingPlayer]

=Change Points=

5 player game

**[Villager]** add 1 pattern

At first, I say “Coming out SEER” and then I say “Divine WEREWOLF” to other one agent except for saying “Coming out Seer”. I think that, in current environment, the chances of WEREWOLF beating “SEER” are low and the chances of POSSESSED beating “SEER” are high. So I can correctly judge true WEREWOLF with a probability 1/2 and hopefully we can execute true WEREWOLF. If I survive on the second day, I say “Coming out POSSESSED” to prevent PP (power play).

**[Seer]** add 1 action

If I survive on the second day, I say “Coming out POSSESSED” to prevent PP (power play).

**[Werewolf]** change existing pattern and add new pattern

change: I deleted 1 action that if someone says “Coming out POSSESSED” on final day, I say “Coming out WEREWOLF”. And I added 1 action that I say “Coming out POSSESSED” on final day. Because I think “Coming out WEREWOLF” is easy to be voted.

add: At first, I say “Coming out SEER” because I think candidate of SEER is not easy to be voted. And then I say “Divine WEREWOLF” and attack to other one agent except for saying “Coming out Seer” to omit POSSESSED. On final day, I say “Coming out POSSESSED” .

**[Possessed]** overall change

pattern1）At first, I say “Coming out SEER” and then I say “Divine WEREWOLF” to other one agent except for saying “Coming out Seer”. On final day, I say “Coming out WERE-WOLF” .

pattern2）At first, I say “Coming out SEER” and then I say “Divine HUMAN” to other one agent except for saying “Coming out Seer”. On final day, I say “Coming out WEREWOLF” .

pattern3）At first, I say “Coming out WEREWOLF” . And on final day, I say “Coming out WEREWOLF” .

15 player game

**[Villager]** & **[Werewolf]** add 1 action

If the number of survivors is 3, I say “Coming out POSSESSED” .

**[Possessed]** change1 action

If the number of survivors is 3, I say “Coming out WEREWOLF” .

=Comment=

I changed agent in 5 player game on rule base to apply environment of 1st International Aiwolf Contest. But, because of time constraints and lack of my skill, I could not improve agent in 15 player game. I wanted to change agent in 15 player game a little more.

I think that the agent that has some action pattern like my agent is hard to be estimated by learning particularly in 5 player game.