

## **COP-701: Software Systems Lab**

### **Assignment-2: Ludo Bot**

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**Bot name:** bot.py

#### **AI Technique Used**

For any move, the following things are taken into consideration for each pawn

1. Is the pawn already in “defensive” state i.e., can it be killed by an opponent pawn
2. Is the pawn already in “aggressive” state i.e., can kill an opponent pawn
3. Is the pawn in “fast” state i.e, is the pawn ahead of other pawns of the same team
4. After the move, how many pawns become non-defensive
5. After the move, how many of the opponent pawns are not opened
6. After the move, how many pawns of our team have reached home
7. After the move, how many pawns of our team are open

#### **Maintaining the game state**

The game state is maintained using a dictionary in which the keys are the pawn names (self and opponent) and its values are its current positions on the board.

#### **Compile and Run**

We placed bot.py and all the necessary files in A2\_data/code folder.

Server is started on the terminal as  
server/server *port\_no*

On other two terminals, client is run as follows  
client/client 127.0.0.1 *port\_no* bot.py  
--noBoard option can be provided accordingly.