

Computer Network Programming Assignment 1: IRC bot

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Environment

workstation, personal PC (ubuntu 16.04)

Run

python2 main.py

Language

python2

Library

random, urllib2, socket, lxml (all exist in workstation)

Implementation

- (0) connect
 - via *send*, *recv* in *socket*.
- (1) repeat
 - @repeat <string>
 - Repeat given strings, strip heading and trailing spaces, ex. ' 13 4 56 ' will be '13 4 56'
- (2) play
 - @play <robot_name>
 - Only play with single user until it win or out of move.
 - Ignore other users' call and same user call again while already playing with a user.
- (3) guess
 - @guess <integer> (random number in 1~100 with 5 times)
 - Handle error with non integer input.
 - Need to call @play first, otherwise ignore.
 - Ignore other user's call or playing with other bots.
- (4) cal
 - @cal <expression>
 - Trim all white spaces in expression.
 - Implement detail: infix to postfix, then postfix-stack to calculate result.
 - Return integer if result doesn't have decimal point. Otherwise return float.
 - Handle error with non integer input, unmatched parenthesis, missing/extra operator.etc.
 - Do not accept negative operand, ex. -2+1, 2*3+(-2)
 - Do not handle result if it overflows python arithmetic.
- (5) news
 - @news <keyword>
 - Search BBC news website for given keyword.
 - Parse HTML with *xpath* in *lxml.html*.
 - Handle "result not found" situation, ex. gfgdffsfdsfsfdasf.
- (6) help
 - @help
 - List all available command except @help.
- (7) others
 - Read config file to get channel name and channel key.
 - Handle PING from server.
 - Will say hi when first connect to server.(name: hi_bot)
 - Allowed unnecessary spaces between command and argument.
 - Only respond to (1) ~ (6) command. Ignore other command and user chatting.
 - Send message via "PRIVMSG".