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CS221 Final Project Report: Tic Tac Toe

For this project, tic tac toe is implemented for two players (X= Player 1 and O= Player 2) to compete against each other. **“Player_1_2_routine:”** is used to prompt the appropriate player to go through the steps for reading and storing the user’s desired location for their position in either **“first_player_prompt”** or **“second_player_prompt.”** Each of the individual player prompt functions will read the player’s inputted position, check for a tie, update the positions on the board, check for if the user entered an occupied position, print the position on the board, and check if there are any winning scenarios within the occupied rows, columns or diagonals.

The individual functions for printing are **“print_tie”, “print_char_routine”** to branch to either **“print_x”** or **“print_o”**, and **“print_empty_spaces”** for the empty boxes. **“EOL”** is used to increment the counter and also update the diagram row but also branches to the **“appropriate_winning_player_routine”** which will update the board positions and also branch to **“row_column_search”** which will check through individual scenarios for **“check_column_1”, “check_column_2”, “check_column_3”, “check_row_1”, “check_row_2”, “check_row_3”, “check_diagonal_1”, and “check_diagonal_2”**. If there are no winning scenarios validated, then the program returns to **“player_1_2_routine”** and keeps going until a win is observed upon which the program will branch to **“appropriate_winning_player”** to branch to the appropriate function for the correct congratulatory prompt with either **“congrats_p1”** or **“congrats_p2.”**