

Our program mainly works on following modules:

P1Input
P2Input
CheckInput
CheckWin
Board

Register \$s0 keeps track of who's turn it is and \$s1 keeps track of the no. of moves have been made. Board module prints the table which is initialized with the slot number.

CheckInput:

It gives the turn to the player according to the value stored in \$s0, 1 for P1 and 2 for P2

P1Input: Player1 makes its input and then check if it is a valid input by checking the place where the turn is made. Then change the value of \$s0 to 2 and jump to Module UpdateBoardX for a valid input.

P2Input: Player2 makes its input and then check if it is a valid input by checking the place where the turn is made. Then change the value of \$s0 to 1 and jump to Module UpdateBoardO for a valid input.

UpdateBoardX/UpdateBoxO: Checks for a valid input and directs to InvalidP1/InvalidP2 which further redirects to P1Input/P2Input in case of invalid input. In case of valid input updates the Board and prints it on the console.

Board: Prints the matrix and the checks for result.

CheckWin: Updates the value of \$s1 by 1 and then checks for possible combinations for win then through its sub modules CheckWinner.1, CheckWinner.2, CheckWinner.3, CheckWinner.9 decides the winner and then exit the program.