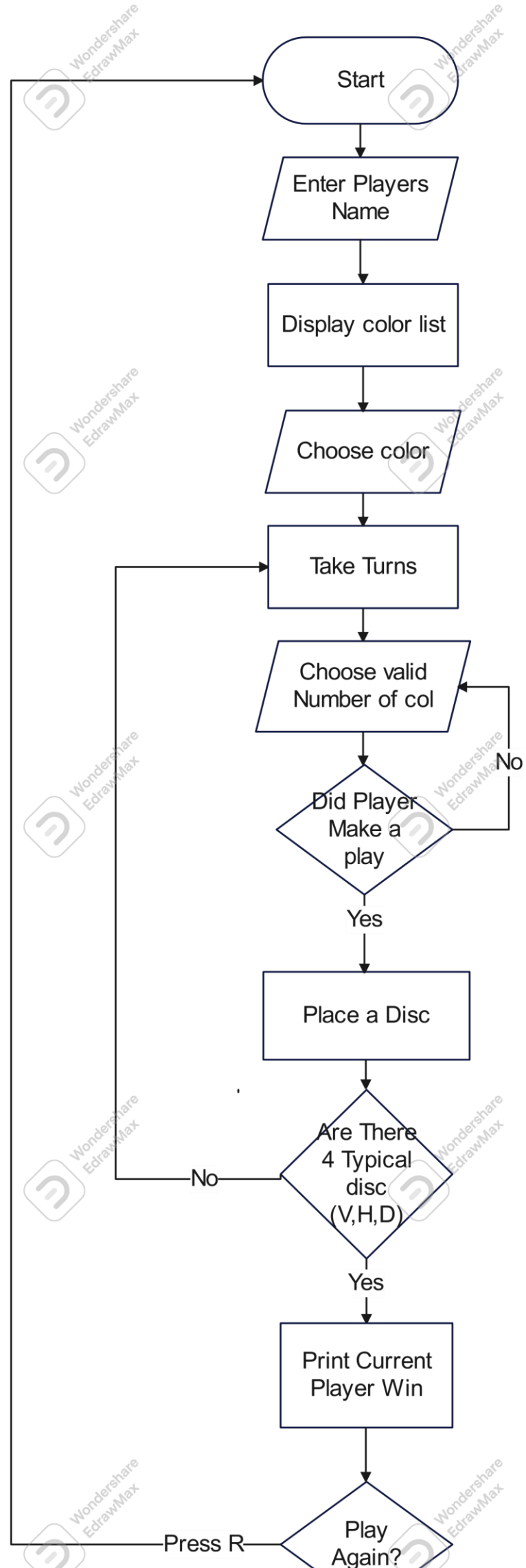
```
" CCCC  OOOO  N   N N   N EEEE  CCCC TTTTT   FFFF  OOOO  U   U RRRR  "
"CC    OO  OO NN  N NN  N E    CC      T     F    OO  OO U   U R   R "
"C     O    O N N N N N N E    C       T     FFF  O    O U   U RRRR  "
"CC    OO  OO N  NN N  NN E    CC      T     F    OO  OO UU UU R   R "
" CCCC  OOOO  N   N N   N EEEE  CCCC   T     F     OOOO   UUU  R   R "
```

Connect Four is a two-player connection game in which the players first choose a color and then take turns dropping colored discs from the top into a seven-column, six-row vertically suspended grid. The pieces fall straight down, occupying the next available space within the column. The object of the game is to connect four of one's own discs of the same color next to each other vertically, horizontally, or diagonally before your opponent. The game ends when one player has four of their colored discs connected in a row or when the grid is filled up and the game is a draw.

Here is a basic flowchart for a Connect 4 game:

- Print quick Description about game then print enter Players Name
- Display Color List
- Player select one color only to play with
- Display the game board
- Prompt the first player to make a move
- Place the player's piece on the game board
- Check if the player has won the game
- If the player has won, display a win message and ask if he want to play again or quit
- If the player has not won, go to step 4
- Prompt the second player to make a move
- Place the player's piece on the game board
- Check if the player has won the game
- If the player has won, display a win message and ask if he want to play again or quit
- If the player has not won, go to step 4
- If the board is full and no player has won, display a draw message and end the game.

- This flowchart assumes that the game is being played by two human players. If you are implementing a computer player, you would need to modify the flowchart to include steps for the computer to make a move.


Start
Enter Players Name
Display color list
Choose color
Take Turns
Choose valid Number of col
Did Player Make a play
No
Yes
Place a Disc
Are There 4 Typical disc (V,H,D)
No
Yes
Print Current Player Win
Play Again?
Press R

Procedures Description:

1-To win Connect Four you must be the first player to get four of your colored checkers in a row either horizontally, vertically, Diagonally.

2-start from game start to gameover

3-input proc
The procedure gets from the stack: the address of where the player will enter his name and puts in it the name the procedure gets.

4- clear screen proc
The procedure clears the screen

5: colorlist proc
The procedure gets from stack: the address of ColorListTxt The procedure print the list of the colors the player can choose for his discs

6- colorchoose proc
The procedure gets from stack:

- The address of the player color
- The line number to print
- The address of the player name
- The address of Color choose text

The procedure print the player name in his print row and ask him to choose a color from the list above then check if the number he has inputted is legal and if it number or letter is illegal ask him to choose again.

7- Player turn proc
The procedure gets from stack:

- the player number
- the address of the player name

- the player color
- the address of ColsCheck
- the address of RowsCheck
- the address of the matrix
- the address of the TurnTxt
- the address of the PickTxt
- the address of the IllegalTxt

The procedure ask the player to pick a colomn and check if the input is legal (and if not he input again) then it calculate the disc position in the game board, store it in the matrix by the player number and save the location to check if win next and then print an animation of the disc falling

8- win check proc

The procedure gets from the stack:

- The address of winner
- The address of the matrix
- The turns counter
- The address of ColsCheck
- The address of RowsCheck
- The Player number

The procedure check the horizonal vertical main and secondary diagonal options in order to check if the last player succeeded to connect four and win the game and save his number in the winner valuable or he didn’t and check if the game arrive to the maximum turn number and then it is a draw and the winner equal three or the game continue and winner equal zero .

Final step :

The procedure gets from the stack:

- Number of color
- The address of player name (empty in case of draw)
- The address of text

The procedure print an end game announcement - winner or draw with the suitable color.