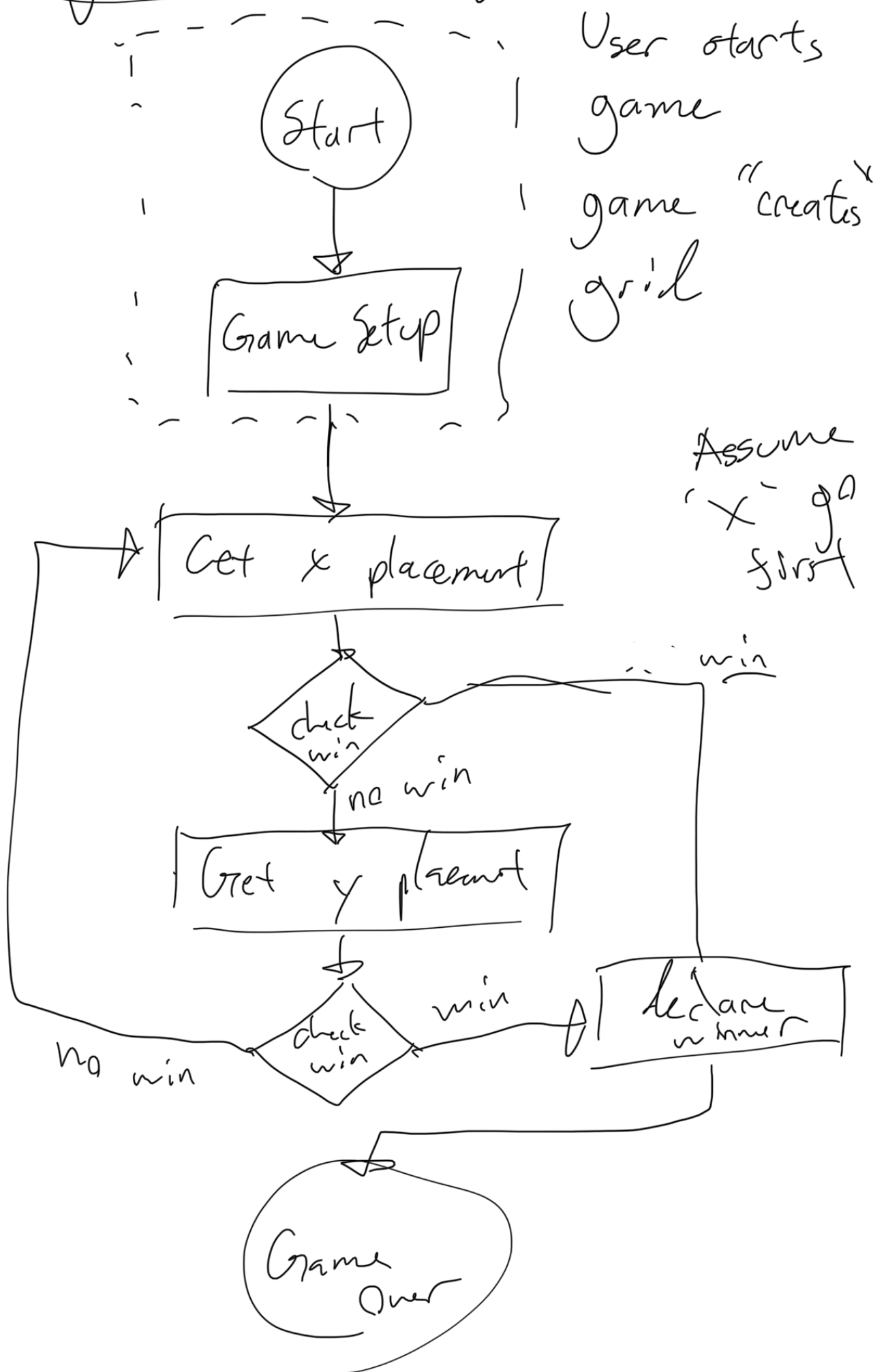


High-level Design



Assume
'X' go first

game piece	
String	'X' or 'O'
h	7/r

Grid	
-20	array
-	

Tic Tac Toe game	
	0

boolean win

get
set

add piece
check winner

grid
ask user
input

class GamePiece

private String piece_type;
private boolean check;
private String location;

GamePiece (String the_type) ~~boolean~~
piece_type = the_type
check = false

location
add location

get
location

boolean get_check()
return check

String get_type()
return piece_type

void set_check (boolean check_be)
check = check_be;

class GameGrid

private GamePiece[][] grid = 3x3
private ~~num~~ int number_of_pieces
~~private boolean game~~

1 1 1 1 1 1 1 1 1 1

public void place_on_board (GamePec)
grid[GamePec.location][GamePec.col] = GamePec

public String winner_is (GamePec)
if (check_winner == 3)
return ~~GamePec~~ GamePec.get_type
else
return "no winner"

private int check (type, row, col)
int result = 0
if (0 ≤ row ≤ 2 && 0 ≤ col ≤ 2 &&
grid[row][col] not None && type ==)
result += 1

AND
not check
yet

r1 = check (type, row-1, col)
r2 = check (type, row-1, col-1)
r3 = check (type, row, col-1)
r4 = check (type, row+1, col-1)
r5 = check (type, row+1, col)
r6 = check (type, row+1, col+1)
r7 = check (type, row, col+1)
r8 = check (type, row-1, col+1)

return result + r1 + ... + r8