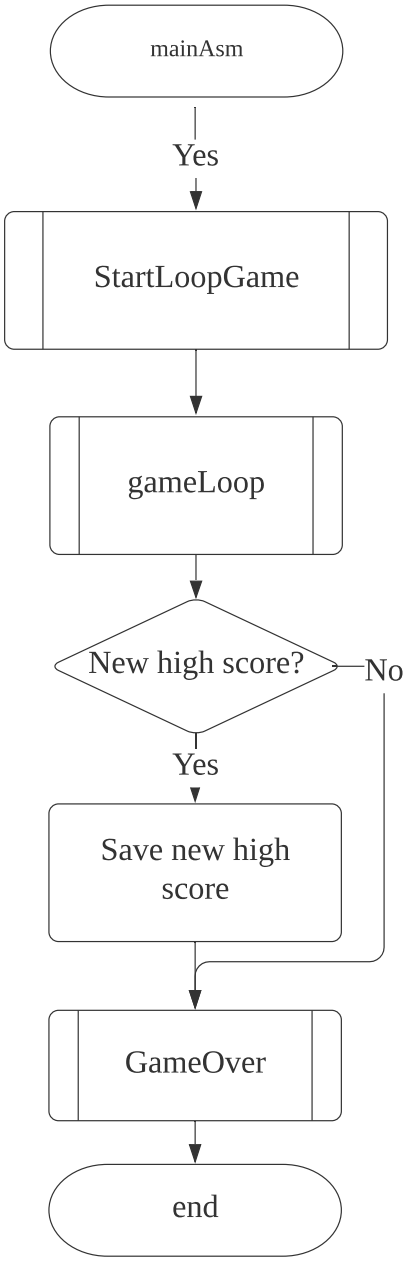
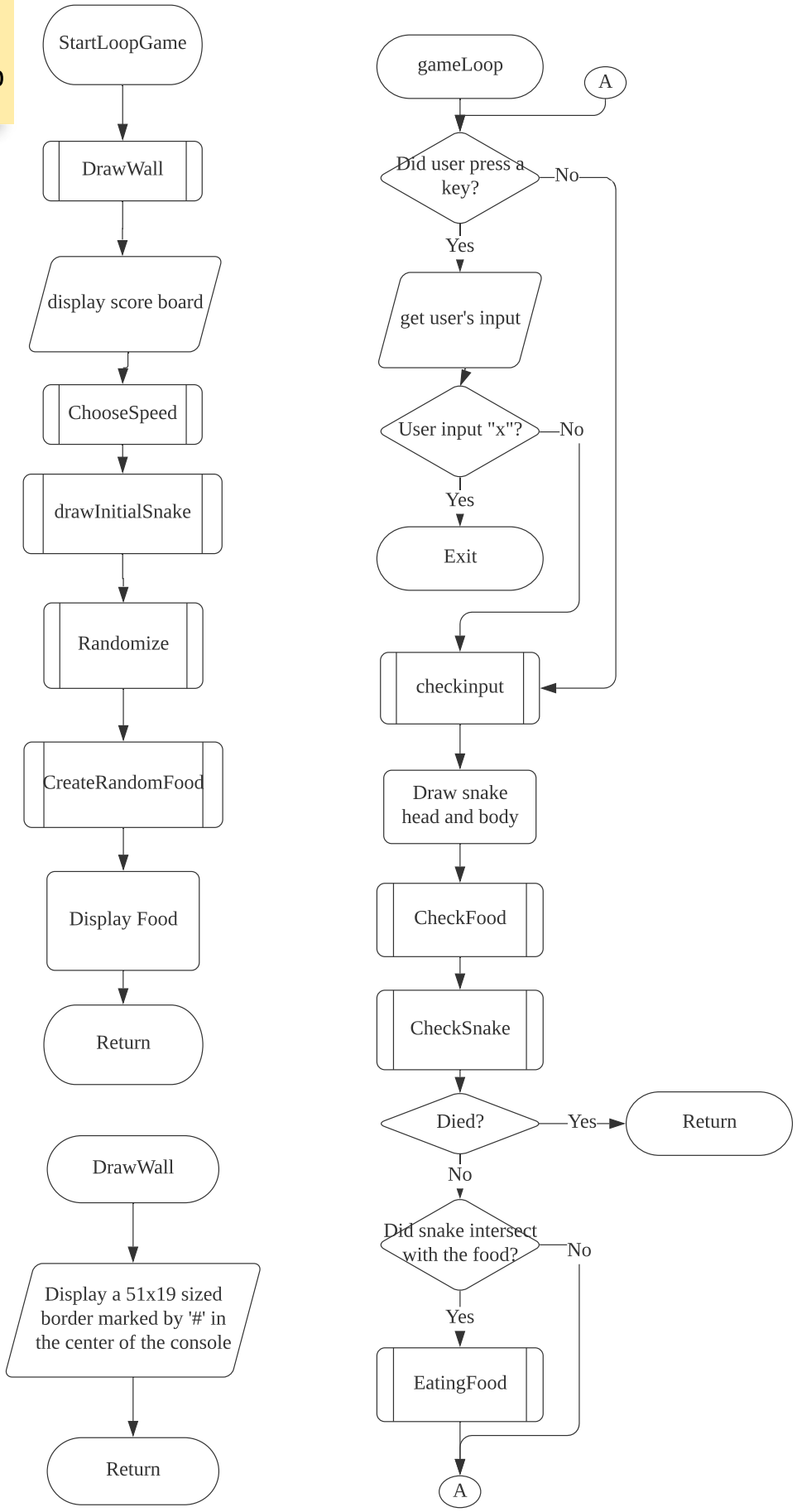
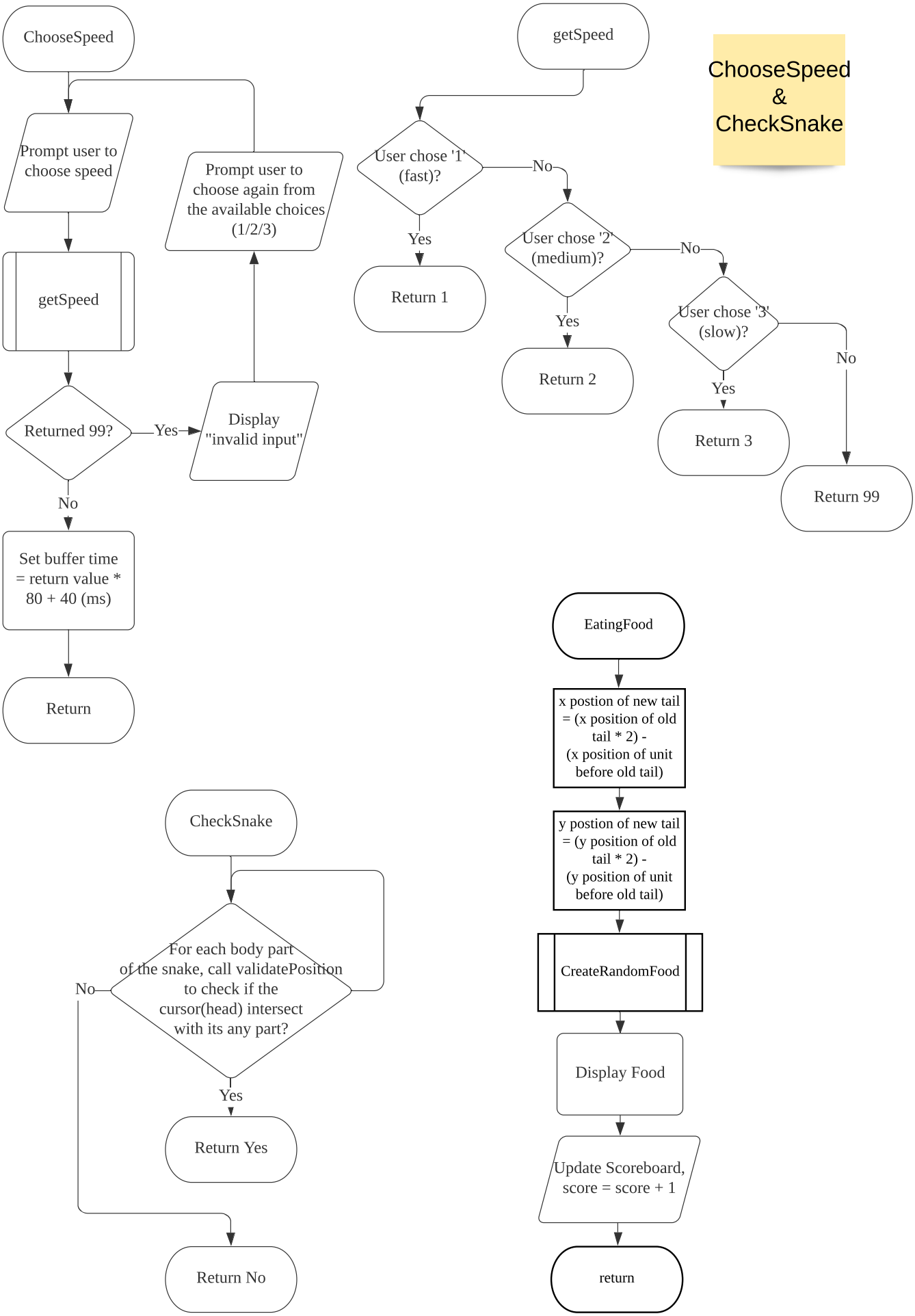
Main Loop


mainAsm
Yes
StartLoopGame
gameLoop
New high score?
No
Yes
Save new high score
GameOver
end

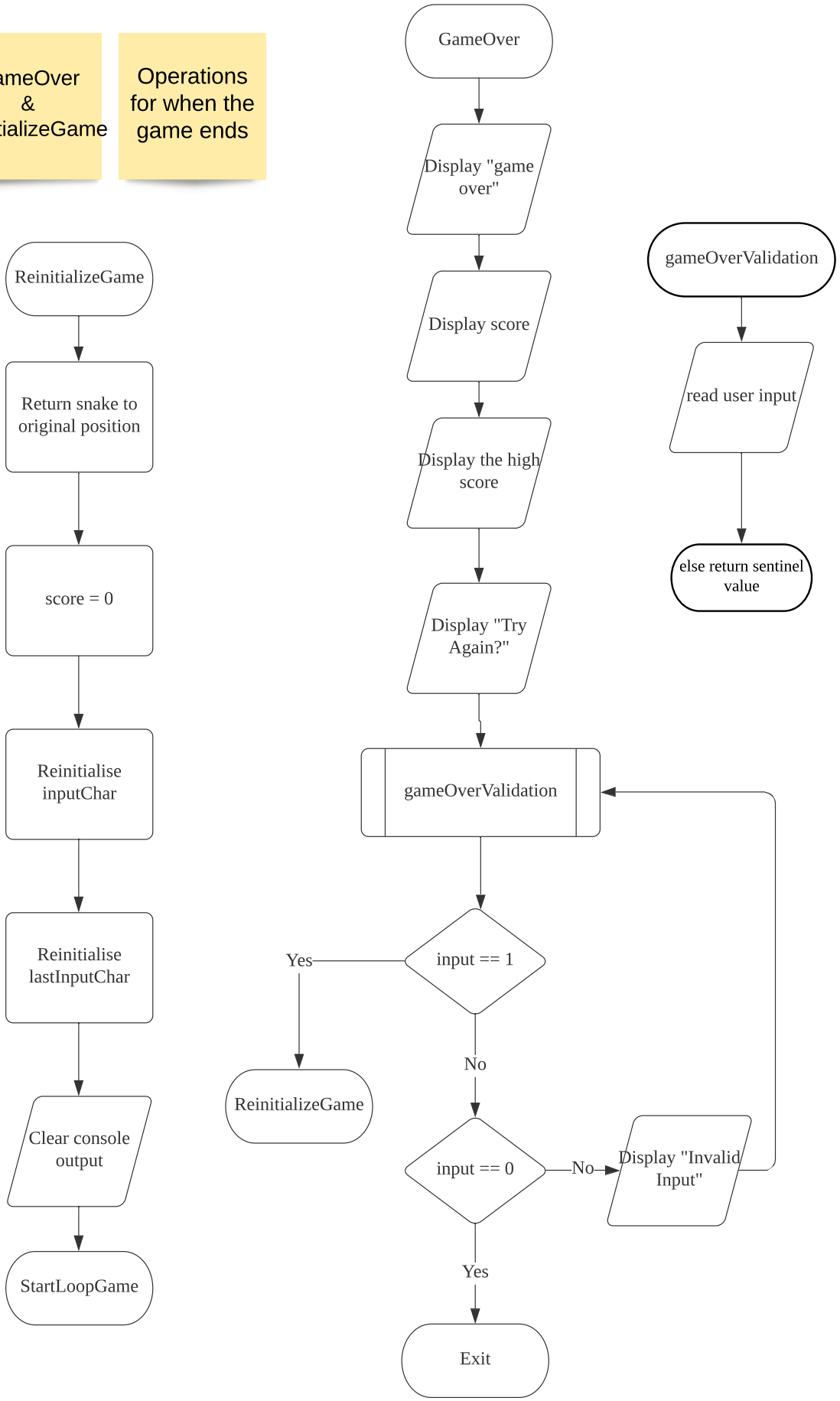
StartLoop & gameLoop

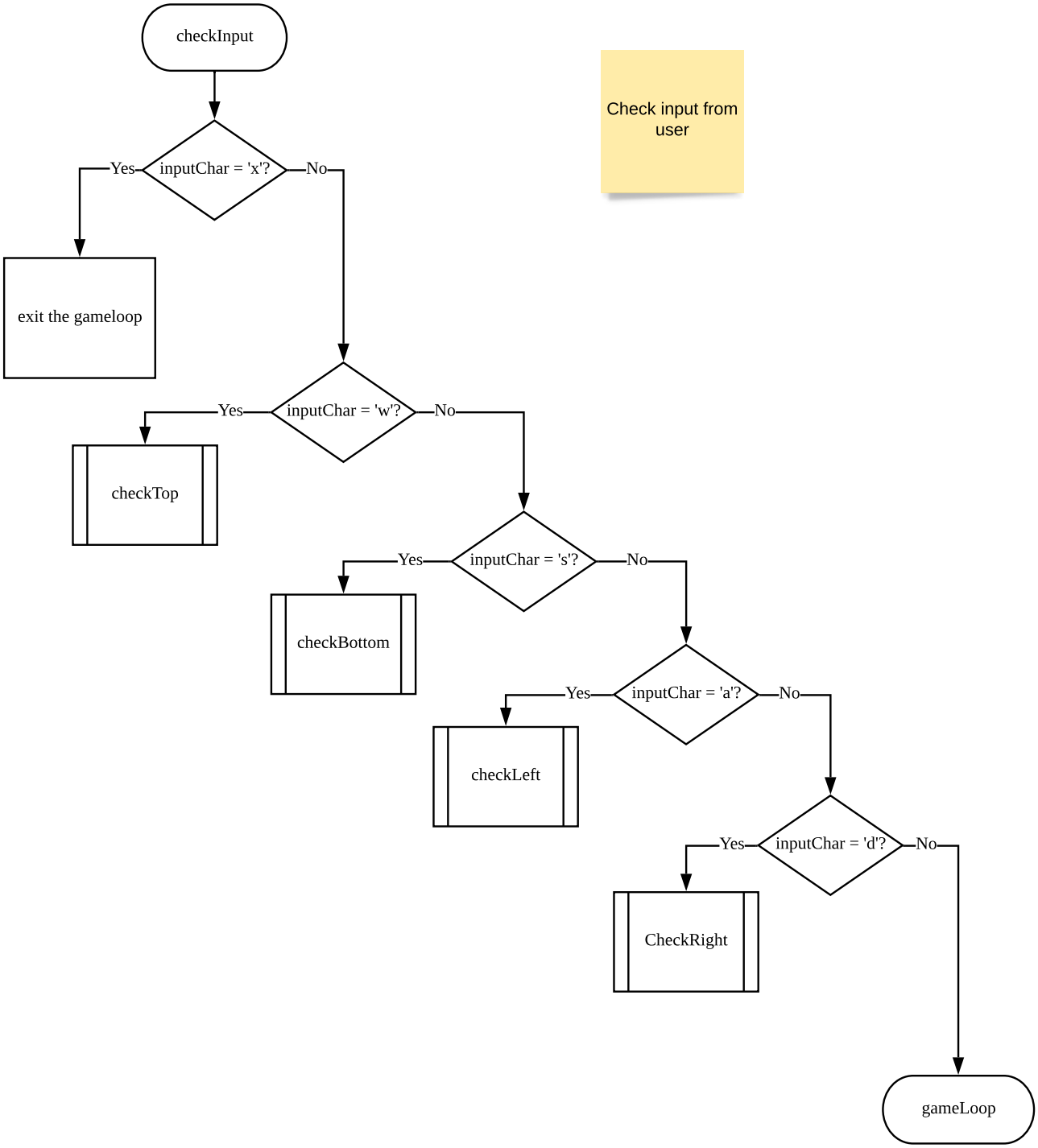


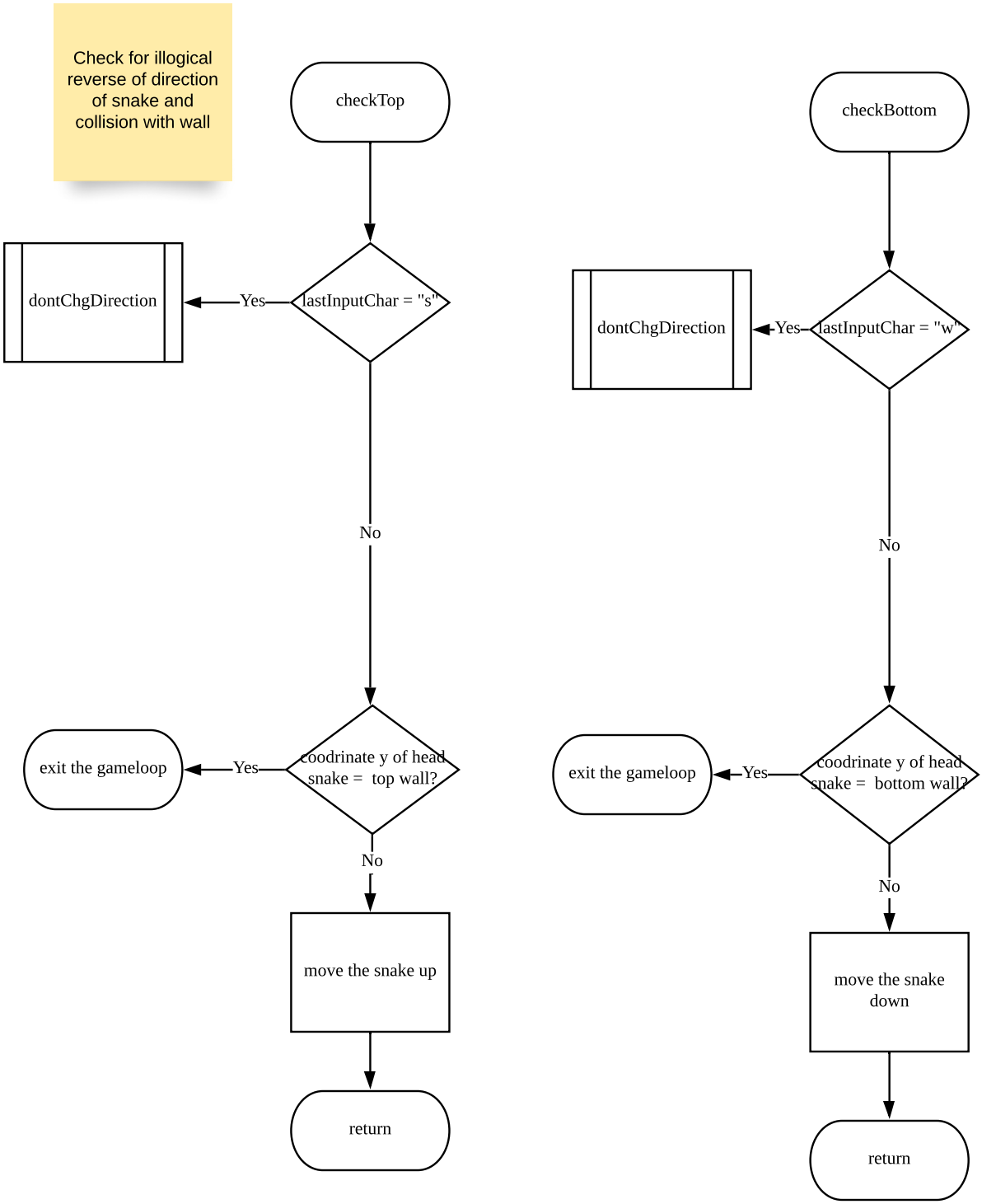

ChooseSpeed & CheckSnake
ChooseSpeed
Prompt user to choose speed
getSpeed
Returned 99?
Yes
Display "invalid input"
Prompt user to choose again from the available choices (1/2/3)
No
Set buffer time = return value * 80 + 40 (ms)
Return
getSpeed
User chose '1' (fast)?
No
Yes
Return 1
User chose '2' (medium)?
No
Yes
Return 2
User chose '3' (slow)?
No
Yes
Return 3
Return 99
EatingFood
x postion of new tail = (x position of old tail * 2) - (x position of unit before old tail)
y postion of new tail = (y position of old tail * 2) - (y position of unit before old tail)
CreateRandomFood
Display Food
Update Scoreboard, score = score + 1
return
CheckSnake
For each body part of the snake, call validatePosition to check if the cursor(head) intersect with its any part?
No
Yes
Return Yes
Return No

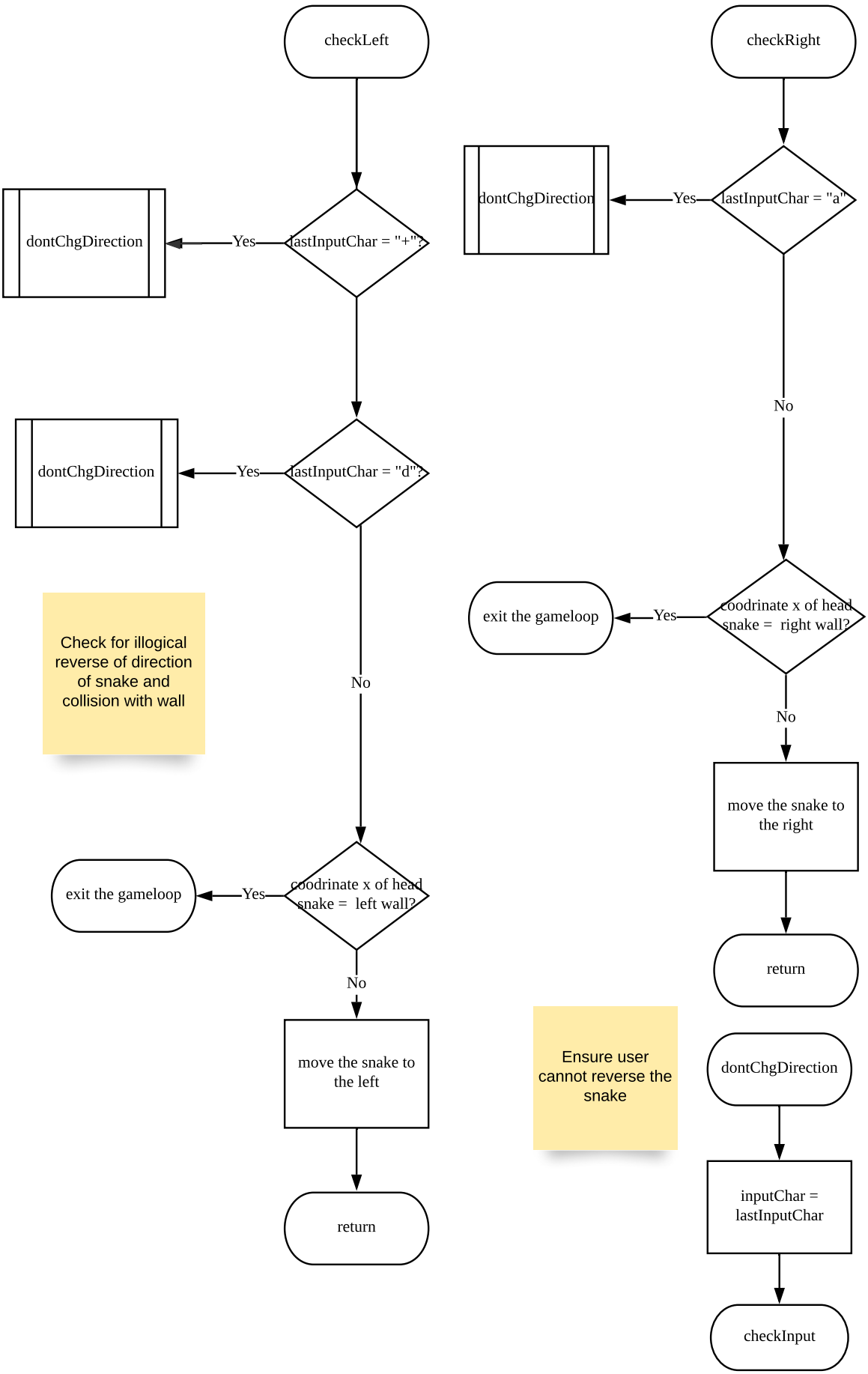
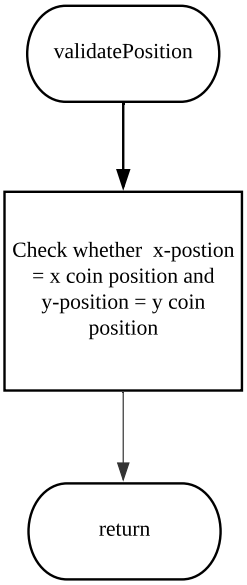
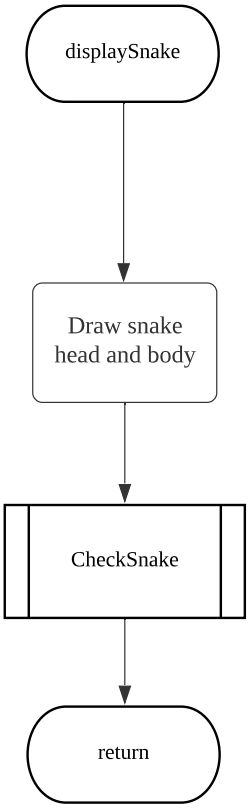
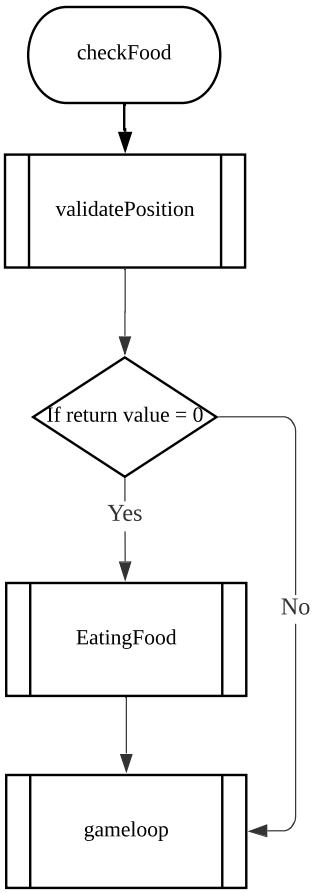
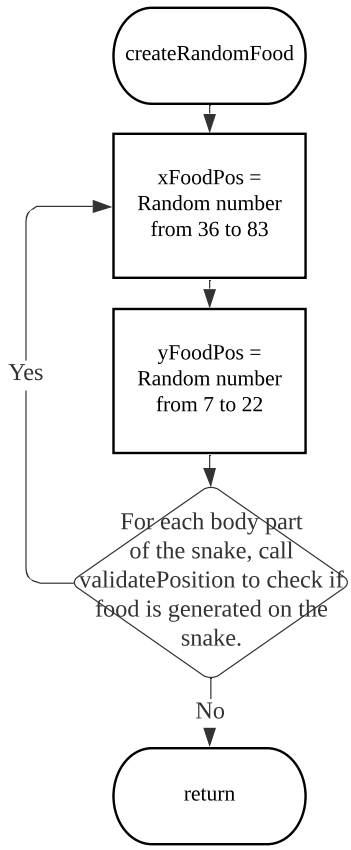
GameOver & ReinitializeGame

Operations for when the game ends




checkInput
Check input from user
inputChar = 'x'?
Yes
No
exit the gameloop
inputChar = 'w'?
Yes
No
checkTop
inputChar = 's'?
Yes
No
checkBottom
inputChar = 'a'?
Yes
No
checkLeft
inputChar = 'd'?
Yes
No
CheckRight
gameLoop


Check for illogical reverse of direction of snake and collision with wall
checkTop
lastInputChar = "s"
Yes
dontChgDirection
No
coodrinate y of head snake = top wall?
Yes
exit the gameloop
No
move the snake up
return
checkBottom
lastInputChar = "w"
Yes
dontChgDirection
No
coodrinate y of head snake = bottom wall?
Yes
exit the gameloop
No
move the snake down
return


checkLeft
lastInputChar = "+"?
Yes
dontChgDirection
lastInputChar = "d"?
Yes
dontChgDirection
No
coodrinate x of head snake = left wall?
Yes
exit the gameloop
No
move the snake to the left
return
Check for illogical reverse of direction of snake and collision with wall
checkRight
lastInputChar = "a"
Yes
dontChgDirection
No
coodrinate x of head snake = right wall?
Yes
exit the gameloop
No
move the snake to the right
return
dontChgDirection
inputChar = lastInputChar
checkInput
Ensure user cannot reverse the snake

In relation to snake movement and sundry