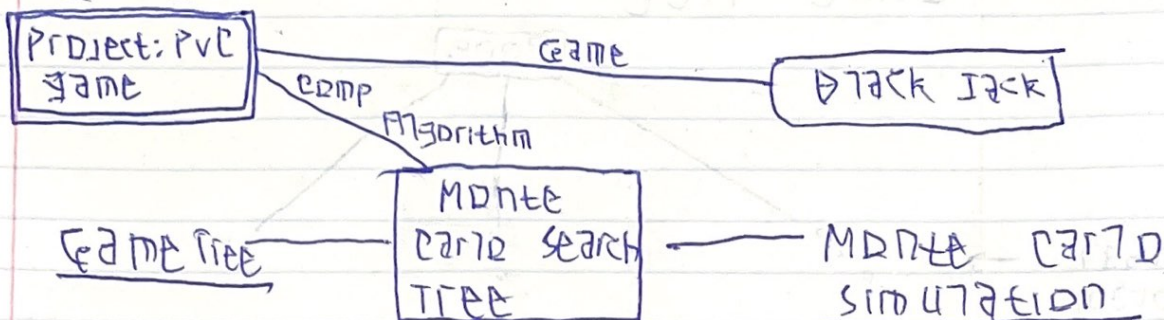


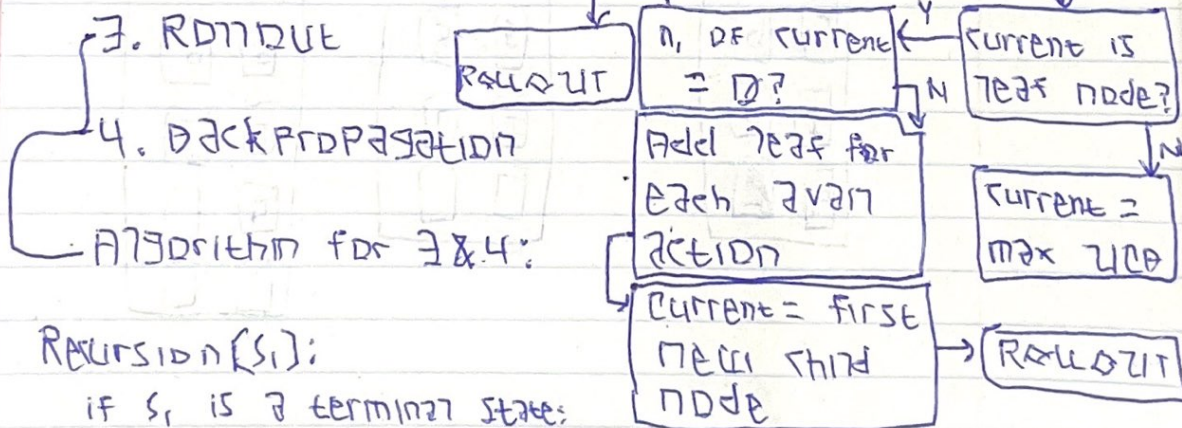
# CSCE 136 Final Project Atainst Learning



## MONTE CARLO SEARCH TREE PROCESS:

4 steps repeated a reasonable max # of times (within time/space constraints) on game tree:

1. Selection
2. Expansion



3. Rollout

4. Backpropagation

Algorithm for 3 & 4:

Recursion( $s_i$ ):

if  $s_i$  is a terminal state:

return  $value(s_i)$ :

Randomly choose available action from  $s_i$ :

$s_{i+1}$  result of that action;

return  $Recursion(s_{i+1})$

Backpropagate values: Add score and  $n_i$  to all parent branches



# Game Tree

