CISC181 - Final Project Documentation:

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1. **a) New Game Unit (can spawn, move and either attack or recruit,).** Describe your new Unit.

Class Name	DukeUnit
Valid Path – Attack or Recruit	Can do Both, can attack and recruit anywhere
Valid Path – Spawn	Can spawn anywhere
Valid Path - Move	Can move anywhere
Limitation	None
Other Details You'd Like us to Know	This unit does not spawn upon game initialization. In order to acquire a DukeUnit you must combine any two units on your team using the new TradeAction. This unit is supposed to be the most powerful unit in the game.
Which classes did you modify/create to implement this change? Describe the changes you made.	We Created two new classes: ● King Class: Abstract class that extends the Unit class and combines aspects of both the attacker and recruiter class. ● DukeUnit Class: Extends the king class and provides the constructors and methods necessary to make a DukeUnit
Does your new Unit work? If not, please describe the problem.	It works

b) Second New Game Unit (can spawn, move and either attack or recruit, and can perform your New Action). Describe your new Unit.

Class Name	JesterUnit
Valid Path – Attack or Recruit	Recruit: It can recruit units within a radius of 3 squares
Valid Path – Spawn	It can spawn within a radius of 3 squares
Valid Path - Move	It can move anywhere
Valid Path - New Action	It can trade with any unit on it's team within a radius of 1

Limitation	It is unable to attack If it gets attacked and it has no more spawn left, it instantly dies
Other Details You'd Like us to Know	It can spawn up to 3 times. If it is attacked and it still has spawns left, it will evade the attack and move to an empty square. This uses up one of the amount of times it can spawn.
Which classes did you modify/create to implement this change? Describe the changes you made.	We created a new class: ● JesterUnit Class: Provides implementation for the JesterUnit ● Rules Class: added rules for recruit ● Controller Class: Initialized each team with a JesterUnit, and incremented the JesterUnits numTimesSpawned in carryOutAction()
Does your new Unit work? If not, please describe the problem.	It works

2. **Hidden Board Square with Different Behavior.** Describe this behavior.

Is square always in same location or chosen at random	Random
What behavior/rule does this square add to your game?	Add 10 health to the unit. It will not add any health if the action is recruit or trade
When does this behavior happen?	Whenever a unit lands on the square
Which classes did you modify/create to implement this change? Describe the changes you made.	Controller Class: ● Added a variable called specialSquare ● Initializes specialSquare, inside the controller constructor, to be a random empty space
Does this modification work? If not, please describe the problem.	Yes

3. **New Action.** One of your new Units should be able to take this action. Describe your new Action.

Class Name	ActionTrade
Describe the Action	You can combine two units on your team in order to create a DukeUnit
Rules for determining if Action is valid	The to square unit and the from square unit must be on the same team. They have to be within a one square radius of each other
Which Units Can Take this Action?	All units
Which classes did you modify/create to implement this change? Describe the changes you made.	ActionTrade: ● Extends the action class and implements the trade action
Does this modification work? If not, please describe the problem.	Yes

4. **New Game Rule.** Describe your new game rule.

New Rule	You can only attack every other turn
Which classes did you modify/create to implement this change? Describe the changes you made.	Rules ● Changed the attack if statement to check whether or not the attack can take place Team ● Added in a boolean canAttack which alternates for the team after every attack
Does this modification work? If not, please describe the problem.	Yes

5. **New Objective.** Describe your new objective.

New Objective	Destroy the enemy teams attackers
Which classes did you modify/create to implement this change? Describe the changes you made.	Game: ● Edited the IsAWinner, getWinner, and isGameEnded to account for this new objective ● Added a containsAttacker that takes a Team parameter and checks to find instances of King and Attacker
Does this modification work? If not, please describe the problem.	Yes