

# Programming Mandatory Assignment 04

## Horse Race

As many players as you want can join a game of horse race, but we will be capping, they bet on a horse and get a virtual coin by winning or losing coins by losing. They can never get below 5 coins though and you can never bet more than what you have.

We are using google login to fetch the information about the user, thereby getting the profile picture and we will be fetching the person's nickname also from google play.

The game will be featured in a 2D world to keep it as simplistic as possible and thereby keeping the focus on the cards, the cards on the left side will be turned by the bot once all of the horses(cards) have moved up according to the card that the dealer has dealt.

The dealer(bot) will have the rest of the stack of cards and turn cards one by one, and then if the cards correspond to any of the cards on the table, they will be moved one field upwards. Once the last card has gotten on a line where the card on the left side is turned face side down, this one will be turned, then the matching card will go down 1 row again. This will only be happening once per row though.

When two people are dueling, they will be presented with a collection of cards. They have ten seconds to memorize and the cards will turn over. Then the dealer will show one of the cards in that collection and the two players will try to be the first to guess the right card. The first one to get it wins.

Once a match has ended, the ones that have won will be multiplying with the amount that he betted, the current amount of score that each person has will also be reflected in the global ranking system.

Each match is aimed at taking no more than 5 minutes, to minimize the inactivity of the players.

## Game 2:

2-4 player board battle where each player has three pieces.

The goal is to kill the other player's pieces.

The game will be on a square board with a grid where the pieces can move. For each turn, you can do one action for each of your pieces; move forward one tile, turn or attack. If an enemy piece is one tile in front of your piece, you can press the attack. Each piece has 3 health. Attacking a piece from the front takes one health from both the one attacking and the one defending, an attack from the side will take 2 health from the one defending and an attack from the back will take 3 health from the one defending.

The players will log in with their google play account, where we will show the profile picture and username for each of the players on the board

The game will be in a 2D top-down perspective where you see the entire board and other players' pieces at all times.

Each player will have 15 seconds for each turn, so the game will not last forever. Each game is aimed to be around 10-15 minutes.

If two pieces attack each other head-on, a duel can commence where the winner will not lose health. The duel consists of each player dragging their finger back and forth on the mobile screen. A meter will be filled based on how quickly you move your finger and the one who does it fastest (fills the meter) will win the duel.

Using the leaderboard on google play, the players will add scores to their users based on their actions during the game and if they won or not. Killing an opponent piece will give one point, winning a duel will give one point, winning a duel, and killing the opponent will give 2 points. Attacking from the side will give one point, attacking from the back will give two points. Killing a player's last piece will give 3 points.

Winning the game will double the points you have made during the game. All points gained in the match will be added to the leaderboard when the match has ended.

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