# CS3600 Wrapper 2

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## Question 1

The agent's policy has been programmed to maximize high score, thus it discovered hitting the targets can produce a higher score by hitting these targets rather than finishing the race normally. It prioritizes the reward signals from hitting these targets higher than completing the actual course. The reward of the function is maximized and thus the utility deems these actions to be the most efficient in achieving the maximum goal as the finishing of the race does not give points.

## Question 2

Humans have an ulterior goal of completing the course and racing against the other boats. The agent's strategy minimizes fun had in competing as the actions needed are unintuitive and repetitive. The goal of the game in humans is to have fun and play it "properly" whereas the agent is purely focused on scoring the highest score with no regards to playing lame.

## Question 3

Provide another reward that allows for variance between maximizing score and getting a higher position towards the finish line. This will make the agent select which option has the best utility in completing both goals of getting a high score and finishing the race. Another implementation could be to compare the agent to other players' positions. The agent will then maximize utility and be rewarded if they are ahead of the other players and maintain a maximum game score given being ahead of the other players. This emulates how a person would play as they want to race while gaining points, so this would maximize the overlap of those gameplay mechanics.

## Question 4

If a passenger is in a hurry, they may tip for faster but less safe driving thus the reinforcement agent might be more inclined to drive recklessly to earn more tips. Furthermore, the agent will learn based off of whatever the largest tip rewards are, thus if a passenger tips a large amount of money despite using an incorrect action, the agent will pursue use of that action to prioritize gaining the reward thus causing harm to the passenger and others on the road.