**Deliverables: -**

1. Which team touched the ball last time before it went out of the field while the game was in play?
   1. According to the referee, determining to whom to give the throw-ins and whether it is a corner, or a goal kick is difficult.
   2. The scenario is quite frequent in a football match.
   3. The normal cases of touch are:
      1. Dribbling with the ball
      2. Passing the ball to another player
      3. Receiving the ball
      4. Shooting the ball to the goalpost
      5. Blocking the shot
      6. Clearing the ball from the penalty area of the player
   4. Moreover, there are a lot of edge cases in this scenario, they are
      1. The Ball touching both the keeper and goalpost
      2. The ball touching two players of opposite teams at the same time
      3. The ball scraping the robot
      4. The ball with backspin and topspin
      5. The ball travelling in a curved trajectory
      6. The robot touching without moving the ball
      7. Two players from opposing teams are contesting for the ball near the line.
   5. Detecting who touched the ball last time is technically challenging to detect because of the edge cases.
   6. Not yet implemented by the previous teams. However, the previous teams have implemented ball out-of-play.
2. Communicating to the referee about the team whose player touched the ball last before the ball went out of play.
   1. Assistant to the referee, to communicate which team touched the ball before the ball went out of play.
   2. A simple UI with minimal information or a pop-up notification.
   3. There can be other decisions just before the ball goes out of play, like a collision between two players. These events will be deciding who should resume the match. Considering this, not making this an automated system, but rather an assistant to the referee.
3. Testing with a 2 vs 2 match of 10 min long officiated by a human referee.
4. A report providing thorough insights into the system's decisions and the codebase, supplemented with comprehensive comments.