2A. For Pitcher A, I would want to add a changeup to his arsenal. His current arsenal consists of heaters in the Fastball/Four Seamer, and off-speed pitches in his curveball and slider. From his release height, I can infer that he probably has a ¾ arm slot delivery. With his offspeed pitches, his curveball is his big vertical break pitch, his slider is his big horizontal break pitch. Even though he technically has a changeup in his arsenal, his 35 changeups this season aren't enough to have a consistent effect against hitters. I think adding a changeup to Pitcher A's arsenal would be very beneficial because he already has heaters and offspeed pitches that severely break, a slower changeup would be vital in upsetting hitters' timing. Since Pitcher A's fastball averages at around 95 mph, a reasonable speed for his changeup would be between 86 and 89 mph. To calculate the swing and miss rate, I filtered all pitches for just changeups between 86 and 89 mph and that batters swung at, resulting in 3,939 pitches. I then took the sum of all strike swinging pitches and divided that by the 3,939 pitch total, coming out to a predicted swing and miss rate for the 2023 season of 23.36%.

For Pitcher B, I would want to add a cutter to his arsenal. His current arsenal consists of heaters in the Fastball/Four Seamer, and off-speed pitches in his curveball, changeup, and slider. From his release height, I can infer that he probably has a ¾ arm slot delivery. With his offspeed pitches, his curveball is the big vertical break pitch, and his horizontal break pitches in changeup/slider do not break a lot, nor are significantly different from each other. He already has a lower velocity than pitcher A with only an average fastball velocity of around 92, he would benefit from a mid-speed pitch that moves a signficant amount. To better match Pitcher B's arsenal, I would rather have a slider on the slower end if that meant the slider would break more. If pitcher B could develop a cutter ranging from 84 mph to 87 mph and move around 4 inches. then he would have a mid speed pitch that could glide better across the plate. To calculate the swing and miss rate, I filtered all pitches for just cutters between 84 and 87 mph, that moved between 3.5 and 4.5 inches horizontally, and that batters swung at, resulting in 508 pitches. I then took the sum of all strike swinging pitchs and divided that by the 508 pitch total, coming out to a predicted swing and miss rate for the 2023 season of 18.5%.