TLDDR

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Event

The revision of Event wasn’t too difficult after Scott helped me understand how to interpret how many heats there will be in each Event. After that I used the length of the array in the new constructor to determine the number of heats and put almost all of runEvent() into a do while loop. This allowed it to run once even if there is only one run to keep those Events valid. Then the while looks at the array length to determine how many times this would be repeated. This also meant I had to make score additive. I did this by making set score into a counter using +=. How I fixed the issue of resetting the score after every event was by setting setScore() to -getScore(). This set score back to zero so it is ready for the next event.

The Event compareTo was straight forward. I just took another compareTo that I already made that had other variables set aside for comparison to output a positive, negative, or 0 for equal and renamed the variables accordingly to reflect the population of each Event.

Fan

For the compareTo for fan I used the same skeleton I used for Event. However deciding how to calculate happiness took some time. It wasn’t difficult just finding the right placements for several counters took a little work. For events attended I just put a counter inside buyTicket to keep track of how many events the fan has entered. Every time they were refunded it added to a counter for how many refunded. And for rejected I had to make a method to add to the counter because the situation only happened outside of fan and during an out of money exception or too many fans exception. After the Olympics I would calculate the happiness with the given equation and presto.

Driver

Printing the average happiness was easy. Running an advanced for loop through every fan and picking up their happiness divided by how many fans got the average. I want to say anything from 250 to 500 would be a success from what I witnessed came to be during testing. For the top 10s I used the method Scott wrote for finding the max Athletes and duplicated and reworded them to work for finding all the remaining info for Driver.

AI

For the smart AI for Athletes I didn’t have to change much. During calculation of stamina I used a condition to be decided if the adjusted stamina dropped below 0 during an Event procedure. If stamina were to drop to or below 0 a random number between 1 and 10 would be generated. The same scale used for skill. If rnd < althlete skill level, then the Athlete would not lose stamina and would not participate in the event. I also made if for when Athletes needed to be added back into the lineup for the next heat the event would take from this stand by list first before taking from fainted.