Birthday Program

The objective of the birthday program was to determine the likelihood or the possibility that at least two students in our class would have the same birthday. Each student in the program's class student.java of a group of 29 students assigned a random birthday between 1-365, which corresponds to each day of the year. The program runs the simulation 10,000 times to determine the likelihood of a shared birthday. By tracking the birthdays in an array, each simulation determines whether any two students have the same birthday. If a match is found, the program is considered successful.

After running the findings, it showed there is a 66.66% chance that at least two of the 29 students in the class will have the same birthday. This result illustrates the unexpected character of the Birthday Paradox, which states that even in a small group, the probability of a common birthday rises noticeably. The high likelihood shows us how rapidly the number of possible birthday matches increases as the group membership increases, despite the assumption that there would be a considerably lower chance of a match.