Report: Inspection of GitHub Actions Distribution in the Angular Repository

The script I developed analyzed all build runs in the 7 full calendar days before the script was run, from Saturday January 20 to Friday January 26, inclusive, where each date is defined by the UTC time (0:00 to 23:59 UTC). By running the script, we can obtain that, among these 7 days, (a) the date with the most failing builds was January 26, with 39 failing builds, (b) the date with the most successful builds was January 25, with 627 successful builds, and (c) the frequency of builds received on each date is shown in Figure 1.

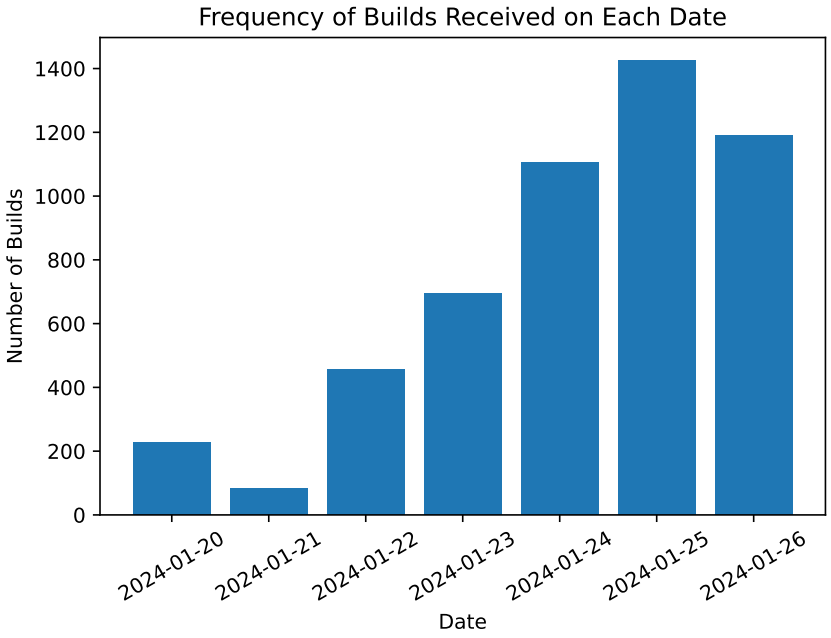

Figure 1: Frequency of Builds Received on Each Date between January 20 and 26, 2024

From these data, we can observe first that builds occurred significantly more often on weekdays (January 22 to 26) than on weekends (January 20 and 21). Among the weekdays, more builds occurred later in the week, with the largest number of builds received on Thursday January 25, followed closely by Friday January 26 and Wednesday January 24. The date with the most successful builds and the date with the most failing builds also coincided with the two days that had the largest numbers of builds, January 25 and 26, respectively. Furthermore, we can also notice that there were a large number of received builds that were neither successful nor failing, but had other statuses such as `action_required`, `cancelled`, `skipped`, etc. In fact, from the maximum numbers of failing builds (39 on January 26) and successful builds (627 on January 25) per day, we can infer that, on the three days with the most builds received (January 24 to 26), almost, or over, half of these builds were in fact not finished "normally" (as success or failure).