

Availability

A web service is available 98% of the time:

- 1. Based on a full year, how many hours is the service expected to be unavailable?**
- 2. Which availability promises do you get from services you use? What about Netflix, Gmail, Online Bank, ...?**

Total hours in a year: $365 \text{ days/year} * 24 \text{ hours/day} = 8,760 \text{ hours/year}$

Unavailability = $0.02 \times 8,760 \text{ hours/year} = \underline{\underline{175.2 \text{ hours/year}}}$

That would be about ~7.2 days

Netflix:

- Availability: Generally aims for over 99.99% availability.
- Unavailability: That would be a downtime of ~53 minutes per year.

Gmail (Google Workspace):

- Availability: Google promises 99.9% uptime for Google Workspace services, including Gmail.
- Unavailability: That would be a downtime of ~8 hours 45 minutes per year.

Online Banking:

- Availability: Varies by institution but often around 99.9%.
- Unavailability: That would be a downtime of ~8 hours 45 minutes per year.

These availability percentages show that high-availability services like Netflix and Gmail are designed to minimize downtime, reflecting their critical role in providing reliable access to users.