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## r/webdev

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Posted by u/sangupta637 **front-end** 3 days ago

**Does someone know what is exponential backoff in javascript/Ajax?**

Heard about it during a convo. Thanks.

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↑ **birjolaxew** 9 points · 3 days ago · *edited 3 days ago*

↓ **Exponential backoff** in relation to AJAX just means that, should your request fail, the rate at which you retry decreases over time.

Let's say you write a website that talks to a third party server. Whenever your users do some action, you send off an AJAX request to said server and wait for the response. If the request fails, you retry it once every 2 seconds.

You suddenly find yourself with 100k users on at a time. The third party server can't handle that much, so it goes down - and since you are constantly retrying every request, it stays down.

A way to fix this is to say that the first time you retry is after 2 seconds. If that fails, you retry again after 4 seconds. If that fails, you retry again after 8 seconds, and so on. This stops your DDoS of the third party server, and lets it get back up again. You are backing off when the server fails.

Usually this is intended for third party APIs (e.g. **Google Cloud Storage**), and is a central part of being a Nice Citizen™ when it comes to API consumption.

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**sangupta637** front-end  1 point · 3 days ago

Perfect explanation! Thanks.

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**frambot** 2 points · 3 days ago



You can see this in real practice on Gmail. Open Gmail. Disconnect from wifi. Watch the retry counter back off.

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