Internet Engineering Assignment 3 : Long Polling

Goal of the project:

You are a freelance developer with financial difficulties and have been asked to implement a blog (that is updated automatically without being refreshed) by a businessman who has no clue about computers what so ever. He mentions some key features as well as some bonus ones. He also is a cranky employer that could only describe what he wants from the blog and doesn't even pay much. However, he is generous with the extra features (as mentioned later). Everything else is up to you and your creativity depending on how much money you need and how much time you got.

The only thing is that there are a number of methods to implement such products like WebSocket and SSE, but since you don't like his attitude and really need the money fast, you decide to implement it with **Long Polling.**

Now let's listen to what he says:

Product backlog:

(friendly advice, for more info about a "product backlog" google "Scrum")

The admin panel:

As an admin, I would like to:

- add posts to my blog.
    - Of course, with titles and descriptions
    - Maybe some pictures if you'd like some more money.
- View all my previous posts.
- Delete those I don't like.
- Edit the few with mistakes.

The blog (what my customers see):

As a (lazy) user, I would like to:

- Keep the blog updated as the admin posts new things or deletes and edit the old ones — I don't like hitting the refresh button (**the most integral feature**)
    - The basic need would be updating the main blog, where all the posts are shown
    - (optional) It would be better if each post could be updated individually as well, e.g. if I'm reading a post and the admin chooses to edit or delete the very same post, I should be mentioned and the page should be updated immediately.
    - (optional) It would also be better if I get notified each time something changes, I don't like surprises!
- See all the posts.
- Choose and read each one.
- (optional) Enjoy visiting the website. :) (the blog is preferred not to be ugly and be smooth — no sudden changes, again, I don't like surprises)

If you need some more money! :
There are a few tips given throughout the compulsory parts.
Two more things:
The businessman: it would be beneficial for my business if the users could say what's on their minds (as comments below each post) or even like the posts. Anonymously of course.
But I want this <u>only and only</u> if the comments (or the no. of likes if implemented) are also being updated automatically for all the online users. So people can be engaged more easily.

Moreover, It happens that sometimes a number of my blog writers add a bunch of stuff together. Even worse, there could be a lot of online users commenting and liking the posts at the same time. Imagine how chaotic that could become! Yet, I don't want my users to get overwhelmed by dozens of notifications and updates in just a few seconds. Do something about it (be creative) and I'll consider paying you even more.
(this is the most recommended bonus feature)

Submission instructions

You are free to choose your own technology of choice for all the parts (client, server, etc).
There should be a number of particles In your submitted assignment :

    1- A well documented and commented **project**.
- The clients (admin, blog) and the server.
- A document containing step by step tutorial for running the project. (So it could be tested)

    2- **Pictures** from all components of the blog
(Your project will be definitely tested, but imagine as if it's not going to be, so provide everything possible)
- The admin pages
    - List of all the previously published posts
    - The post creation and edition form
- The user pages
    - A page for browsing the posts
    - The page for a single post
    - Commenting or liking section (if implemented)
    - Notifications (if implemented)

    3- A **video** that proves everything gets updated automatically. <u>(the most important part)</u>
- e.g. add/edit/delete a post, comment or like (if implemented) and show that the user page is being updated simultaneously.
- Make sure to capture the last requested optional feature vividly and explain what method you chose to answer the need in the video. (if implemented)

Grading

The grading is not going to be explicitly explained. As you should figure out what's compulsory and what is not, based on the product backlog.

But as you might have guessed by now, it contains many more bonus features as previous assignments so you can gain more money compensating for your previous (or possibly future) losses.

You will be paid 100Pts for the required features and 50+Pts for the optional ones.

However, depending on the project, the amount could be negotiated!

As always,

don't hesitate to ask questions if needed.