Question 1. Java code review

- create a constructor with the filename in parameter. It can be customise according the application.
- catch IOException in each method instead of throwing it out. This is a logger class. It's not a critical class for the application. If there is an issue with it, the application has to keep working. In the current situation we have to catch the IOException everywhere the logger class is used.
- in the constructor, `"Initialised log\n"` won't be written in the log file
- ArrayList logs is not necessary. write the text directly in the file.
- create 3 methods logDebug, logInfo and logError instead of one method "log" with a int parameter. That will be easier for the developers who is going to use this class. The constants DEBUG_LEVEL, INFO_LEVEL and ERROR_LEVEL are not required any longer.

Question 2. Java EventService coding test

Question 3. Future of web development

This question is a noncoding question. The idea is for you to express your ideas, opinions, and general thoughts in terms of where you see web development going. What you see as the exciting things and not so exciting things happening at the moment and what impacts they may have on future development projects.
There are no wrong answers here, just express yourself.

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I think today, everyone would agree that the end user always requires a better experience; whether it is with web applications. User interfaces need to be more elegant, interactive, seamless and simple. I believe this has been the key drive for the IT community. A web application that makes a user happy and is innovative is a web application with higher conversion rates as it engages the end user to want to come back and use it. I think this will be the case for future generations of technology, bringing beautiful interfaces with high interaction and an ease to maintain.

Looking at the next 5 years, I think technology like HTML 5, CSS 3 and JavaScript (angular, backbone, node) will occupy a major place in front-end development. In addition, the willpower of browser companies who enable the technology as a new web standard shows that this is the way and the future of where web development is going. Web applications will satisfy the user experience so much that he will prefer to work with internet softwares than his local ones. It's one of the factor that explains why the Cloud Computing should have great days ahead of it.

Just like fashion trends, web application design will regularly have to enhance its appearance and features to show that the brand is alive, moving forward and foster the natural urge for customers to keep coming back. Compared to the past, we are now living in a world where the end user wants to have the same quality of service and experience on all the different devices: desktop, laptop, tablets and mobile phones. This pushes the limits and the way developers build each application, having to think through the approach and innovation to program something that can be utilised on all mediums. We now need to think – add business logic, add clever front

end design and now adding different platforms into the equation are needed.

At the moment, from an architectural point of view, most web applications have been built with OO languages based on a MVC pattern. This mainly brings flexibility into the design and an ease for maintenance.

I think we can see a start in the Model layer being detached from the Controller and the View layers which are customised for each type of device. API and Web Services are getting more and more popular and in the future the interoperability of the services will get stronger between companies. More businesses will sell their data, features and services to third party companies through those interfaces. Businesses will provide raw material for other businesses that will combine them to offer a valuable and usable service to customers.

Developers will look to stop re-inventing the wheel and use more frameworks, libraries or web components. New abstraction concept and web standards will appear to reduce the dependency between layers. Open source communities have never been so active and provide huge and rich set of tools. Basically the code will be mutualised and shared which will make the development easier. The programming languages are even getting simpler and shorter by removing unnecessary characters like it has been done for Ruby or Scala.

With regard to methodologies, I don't think Agile will be present in a long-term, but it will have taught us that it's good to prioritise the tasks we work on, that short iterations are more efficient for both technical and business aspects and reduce risks, and that it's important to synchronise the team work at short.

To conclude, the IT industry has become more mature in its development processes and aims to avoid the rework as much as possible. Although we are at the dawn of the web development, it's the future holds great promise. Now we can create powerful web platform where designers see capabilities instead of restrictions that limit their creativity.