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**Midterm**

**1. What do you propose Applovin’s Computation model is?**

When I researched about Lambda Architecture, I found that this architecture consists of three main layers. One of these is speed layer in which it minimized the high latency serves real views in which gives the most recent data only. The second one is a batch layer which has two main functions and can handle large quantity of data. One of them is to manage the data set in order to compute results with a system called “distributed processing system”. The third one is serving layer in which it stores the output from speed and batch layer.

I propose that Applovin’s computation model is the path that is the same for computation in advertising. There are two paths. One is Analysis data path and the other one is fast data path. We can say that this computation model is very unique.

2. **How do you justify the rationale behind replacing Node specifically in Applovin?**

The way that we justify the rationale behind replacing node is by reducing the impact of input and output latency. The use of Node is not really useful of complex mathematics and does not support the libraries in detail. However, Node’s asynchronous programming paradigm helps to reduce duplicated code and increases the engineering and integrity concept. The replacing process for Node in Applovin can be an easy process. The Node in Applovin flexible infrastructure and the building process of it can be very easy and fast to develop.

3. [Aerospike](http://www.aerospike.com) is used for storing user profiles. (MongoDB was replaced by Aerospike). **Explain the difference between Aerospike database and MongoDB for storing user profiles?**

The main purpose of Aerospike and MongoDB database is to store user profiles. Aerospike database is more reliable and it needs less maintenance with a few of servers, but we can say that Aerospike database performance is a lot better that MongoDB database. MongoDB is a database with document store architecture and the Aerospike database has a key value. It takes a lot less node in order to run Aerospike database. The good features in Aerospike scalability, flexibility, speed and reliability. For Example for the scalability feature, the system scales large data sets and be fast as well. So overall, we can conclude that Aerospike is the best.

**4. Refer to the** [**technology stack**](http://highscalability.com/blog/2015/3/9/applovin-marketing-to-mobile-consumers-worldwide-by-processi.html) **and architecture overview and describe at-least 4 technologies (that is of interest to you) used in the Applovin.**

There are some interesting technologies that are used in Applovin. These technologies include: MySQL, Github, JavaScript, PHP, and AWS. These technologies interest me since we use it regularly in class and I’m more familiar with these technologies. For example, Github is regularly used to allow a group of people to work with a code at the same time and you can also make a change and go back to the repository. Another popular technology that is used and is very popular is MySQL. It is one of the most popular tools to store data and it has a high performance and scalability. Now days top tech companies use MySQL to store data. PHP and JavaScript are web programming languages in order to run a website. Also, AWS is a very good choice to use because of its security, scalability, and high performance.