Big Data Screening Scenario:

You’ve just finished launching a new software tool that’s winning some awards and getting you some fame in the marketplace. You’ve started to wrap things up with your last company when out the blue, a close friend with a successful online business approaches you for help.

*“Flipp helps consumers’ with their weekly shopping trips by making all of their flyers available to them on their mobile phone or tablet.*

*Right now, we use a static priority to order the flyer stack (the listing of flyers when you open Flipp). We want to improve the experience by showing users more relevant content using their past browsing behaviour. Our goal is to increase the average number of flyers read per user.*

Your objective is to design a system to support these requirements

**Part 1 - Algorithm**

Our systems collect a lot of user behaviour data. This data comes in as raw server log files. Each event includes an identifier that is unique to each user. Some of the events that we collect include

* flyer read
* clipping an item
* views (what parts of the flyer have been viewed)

Knowing that our goal is to get users to read more flyers design an algorithm that reorders the flyer stack based on information collected about the user.

**Part 2 - Systems Architecture**

Create a the Systems Architecture diagram that describes the end-to-end flow of data in the system. Start with the events sent from the mobile device through to our web servers. Describe the architecture for the backend data processing systems and integration with the application. Also describe the technologies that would be used in each of the different components of the system.

As part of this, you should include:

* Any questions that you would ask to clear up potential issues
* Assumptions made during this exercise