Problem statement

FriendsPe is a credit card company. The CEO of FriendsPe would like to develop an application so that he can monitor real time/near real time all the transactions which are happening across the globe. Technology team has been asked to design a system so that the CEO can see the transactions on a world map real or near real time. The CEO would like to see this application on his desktop and he would also like to put it on all the TV screens across different global offices.

Here are the assumptions

- There is a system which is already available and it stores the details around all the transactions real time.
- This system stores information like transaction date, transaction amount, Geo location of the merchant (lat-lon), transaction id, merchant id.
- This system provides a push and a pull API to transfer the transactions.

Requirement of the proposed system –

1. Responsive UI for High Resolution Desktop machines/Smart TVs.
2. Near real time or real time updates on the world map showing the place where transaction took place through a circle. Size of the circle should depend on the amount of transaction.
3. A horizontal scroll bar to check all the transaction that took place in the last 24 hours. Scale of the bar should be accurate to seconds i.e. if the CEO scrolls back to 6:10 am, all the transactions that took place at 6:10 am should be marked. If he chooses a window between 6:10 am to 6:20 am then all the transactions that took place in that window should be marked.
4. The system is expected to store and show data for last 24 hours window from the current system time. Assume global offices in different time zones.
5. The system should support the following filters –
   a. City
   b. Country
   c. All transactions within a transaction amount range
6. There should not be any delay in rending data on the UI.

Velocity of transactions : Min – 1000/sec, Maximum – 50000/sec

You are the Head of DevOps and you have been asked to share your thoughts on the following points :

1. Define a DevOps strategy for this application.
2. Provide a DevOps plan (phase wise) along with the tools required. How will you implement CI/CD for this application?
3. What are the challenges you see from a DevOps perspective as far as this application is concerned? How will you mitigate them?

4. Indicate the team required for managing the DevOps work for this application and their roles and responsibilities.
5. How will the DevOps team liaison with different teams at various stages, please share your thoughts?

Note – Make assumptions and state your assumptions. Put the solution in a word file and share it with us.