System Design

Youtube

***Book My show***

* CDN - to store pages in cache
* VARNISH - to improve ui cache
* elk - search improving
* RDBMS - not changing constant - have slaves- for transaction
* movie/actor/rating- kepps changes - too many data (NOsql Casandra DB) - availability
* queue- rabbit MQ- email tickets- workers will execute these sms/emails

A close up of text on a white background

Description automatically generated

* Business intelligence - Hadoop platform- HDFS /ML/User Graph/Recommendation
* KAfka+SparK Storm - for trending vedios - fraud detection
* payment gateway- justpay
* isp/location - to track near by movies
* EC2- All the app server (AS)/Queue are hosted on AWS

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* Servers- Springboot/Tomcat
* cache- hazelcast https://hazelcast.com/use-cases/caching/
* logstash-ELK- for push and monitoring logs
* Kibbana dashboard- to check error log
* Load balancer - nginx

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For more : <https://www.youtube.com/watch?v=JQDHz72OA3c>

***Netflix***

openconnect- Netflix own cdn -CDN content delivery network - india to US content delivery serve by doing copy of server - nearest serve wl send the data to user

ELB- elastic loan balancer - zones first Round robin LB- distributes loads bw two instance

transcoding - moving to different format - based on devices- make copies of 100 of vedios with different sizes (hd/240/480)

once user login- aws searches for bes OC server - based on bandwidth/vedios quality

zuul- gateway serve- (benefits)shard traffic- load testing- Test new service realtime (Beta testing)- Filter bad request

A screenshot of a cell phone

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reliable ?-

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use Hystrix- stop cascading error- take care each microservices- set time request for serve req- reject req when thread pool full - disconnect the service- collect metrics- produce default response on error

A close up of a map

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* Stateles Api
* EV cache - based on mem cache- works on RAM - throughput- latency - cost
* MySQL - master-master model (high scalabality + availability)
* Casssandra- data handle heavy reads+ writes - user history - heavy data- (r:w =1:9 ) -
* kafka & chukwa - events and logs passed troufh chukWA- routing of data
* SparK- ML -sorting - row selection - relevance rank

A picture containing clock

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Artwork analysis

Movie recommendation- users history + interaction + users tatse+ Prev Metadata + device + time of day- based on this NF decide revommendation

consistent hashing used in OC - hash the file name falls on the server

Good reads: ( <https://www.youtube.com/watch?v=psQzyFfsUGU>)

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<https://chukwa.apache.org/>

<https://medium.com/netflix-techblog/s...>

<https://github.com/Netflix/Hystrix>

<https://github.com/Netflix/EVCache>

<https://github.com/Netflix/SimianArmy...>

<https://medium.com/netflix-techblog/e...>

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