Develop video hosting application using spring cloud concepts including cloudstream, Use Kafka as message broker

Use Async operations between microservices using broker

Case study for online video hosting

**Channel module**

**Entity**

MediaChannel{

id:Long

name: String

createdBy : String

createdDate: LocalDateTime

}

Open rest endpoints

1) Create Channel

2) Find channel details by id

**Media module**

**Entity**

Video{

id: Long

widthResolution: integer

heightResolution: integer

uploadedTo: Long /// mediaChannel id

name: String

title: String

uploadDateTime: LocalDateTime

viewsCount: long

description: String

}

Open rest endpoints

1. Create media info and save in database

add video info in newvideos topic

1. Open rest endpoint for watching video

Add videoview in topic (use stream processing, KTable)

Videoeid Viewcount

1. 3
2. 1
3. Find top 10 videos from views topic every hour and add in popularvideos topic (use stream processing)

**Subscriber module**

**Entity**

Subscriber{

id: Long

firstName:String

lastName: String

subscribedTo: List<ChannelInfo> //channels subscriptions

email: String

}

**Features**

1) Register subscriber (open endpoint)

2) Subscribe to a channel

Create a subscription topic, add the subscriber in subscription topic

Channelid -key subscriber info

Use stream processing, find subscribers for channels in every hour and create notification for subscriptionnotifications topic

SubscriptionNotification{

channelid

channelOwnerEmail

Set<SubscriberInfo>subscribers

}

1. Find new videos uploaded in subscribed channels by subscriber after every 30 mins (use stream processing)

newvideosnotification topic

NewVideosNotification{

subscriberInfo: SubsciberInfo

videos: Set<VideoInfo>}

**Notification module**

**Features**

1. Send javamail notification when new message is added in subscriptionnotification topic
2. Send javamail notification when new message is added in newvideosnotification topic