

# **ASSIGNMENT**

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# 1 About the assignment

The assignment is more focused on the exploration of having a video streaming service in WhatsApp and why it could be considered to be built. The full fledged functionalities of the feature that I would want to build as part of the feature are not covered in this document.

## 2 Background

### 2.1 About WhatsApp

WhatsApp is a cross-platform instant messaging service for mobile devices and PC. As of 2023, WhatsApp is the most popular mobile messenger app worldwide with approximately two billion monthly active users, outranking WeChat at 1.3 billion users, and Facebook Messenger at 930 million global users. It enables users to share text, images, video, voice messages, as well as supporting voice and video calling.

Launched in January 2009, WhatsApp was acquired in 2014 by social media giant Facebook for approximately 19 billion U.S. dollars, becoming the company's most successful messaging app despite having transformed its' flagship chat portal into a standalone app - Facebook Messenger - in 2010. Facebook CEO Mark Zuckerberg stated that Facebook's acquisition of WhatsApp was closely related to the Internet.org vision of more affordable and efficient internet access worldwide.

The number of global unique WhatsApp users increased by 26 percent from the beginning of 2020 to mid-2023 and is estimated to have reached 2.79 billion unique users by June 2023. In June 2023, WhatsApp was the most downloaded chat and messaging app worldwide, amassing approximately 45.85 million downloads across the Apple App Store and the Google Play Store.

WhatsApp's Mission statement remains - Let people communicate anywhere in the world without barriers which reflects in their value proposition and key activities. WhatsApp's value propositions are:

- Convenience - The user can communicate with anyone else in the world who has access to a smartphone with the internet, through an absolutely simple interface and instant contact;
- Cost - Users can keep in touch via text and voice messages or internet calls, and even share files at no cost;
- Security - All messages sent via WhatsApp are encrypted. This prevents the leakage of information exchanged privately;
- Features - Over the years, WhatsApp has been including new features that make sense to its audience, such as an in-built camera, group chat for up to 256 people, sharing status, and sending files up to 100 MB;
- Business - There is an application for companies, by which businesses can be promoted through advertisements. Companies can even create catalogues for release
- WhatsApp's Competitors are Telegram Messenger, Signal Private Messenger, Discord, Snapchat, Skype.

WhatsApp SWOT Analysis

<b>Strengths</b>	<b>Weakness</b>	<b>Opportunities</b>	<b>Threats</b>
Customer Base	Data Privacy	Internet Penetration	Innovation
Technology	Online	Technological development	Regulations

Price		Penetration of Smartphones	Entry Barriers
Brand			
Availability			
Ad-Free			

## 2.2 Video Streaming services

A video streaming service is an on-demand online entertainment source for TV shows, movies and other streaming media.

Video streaming services typically focus on studio-produced content, such as movies and TV. Services that focus on content created by end users, such as YouTube and Twitch, are generally classified as social media or streaming platforms.

These services provide an alternative to cable and satellite on-demand services, often at a lower cost. Use of streaming services often requires fees, either per view or a subscription. Other services are ad-supported or run on a freemium model. The availability, content and price of services can vary from one region to another.

Video streaming services have different content from each other. Some focus on content from a single brand, network or genre, while other services are more general. For example, some services focus on offering TV made in Asian countries. Some streaming services create their own original content.

Video streaming services can be accessed through a web browser or an app. Some services feature hardware support for numerous devices such as smart TVs, streaming media receivers, computers, tablets and smartphones. Most services are available on any platform to reach as many potential customers as possible. Popular paid video streaming services today include the following:

- Amazon Prime Video.
- Apple TV+.
- Crunchyroll.
- Disney+.
- Max, formerly called HBO Max.
- Hulu.
- Netflix.
- Peacock.
- YouTube Premium.

The projected revenue in the OTT Video market for Worldwide is estimated to reach US\$316.40bn by 2024. The market is expected to demonstrate an annual growth rate (CAGR 2024-2029) of 6.30%, resulting in a projected market volume of US\$429.40bn by 2029. In terms of user numbers, the OTT Video market is expected to have approximately 5.7bn users by 2029. The user penetration rate is projected to be 60.8% in 2024 and is expected to increase to 70.1% by 2029.

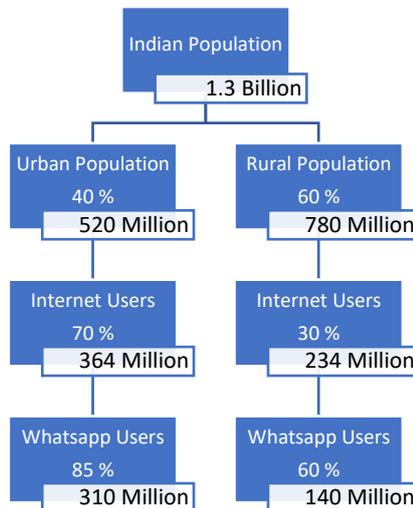
India OTT Market Size was valued at USD 200.5 Billion in 2022. The OTT market industry is projected to grow from USD 234.9 Billion in 2023 to USD 836.5 Billion by 2032, exhibiting a compound annual growth rate (CAGR) of 17.20% during the forecast period (2023-2032). The OTT market in India is anticipated to be driven by a number of market drivers, including the continued trend toward commoditization of sports and entertainment services and the increasing rivalry among OTT providers.

The desire for over-the-top (OTT) content in emerging nations has led to its recent growth. The market's CAGR is being supported by factors such as the abundance of readily available material. The value of the OTT market in India is approximately ₹10,500 crore. With a 20% annual growth, this value is predicted to reach ₹12,000 crore by FY 2024 and ₹30,000 crore in FY 2030. There is a noticeable surge in demand for OTT content.

Furthermore, the OTT market is expanding as a result of increased smart device penetration and easier access to faster internet. The proliferation of smart TVs, tablets, smartphones, and other connected devices has increased user access to over-the-top (OTT) content.

### 2.3 WhatsApp Market size

- Assumption- We will focus on Indian market for this problem statement and carry out market sizing for Indian population.
- India has more Whatsapp users than any country and is ranked 1<sup>st</sup> in terms of user base.
- India has roughly 450 million Whatsapp users with around 310 million coming from Urban population and 140 million coming from Rural population.



- We can further divide the users on the basis of Age groups and Genders.

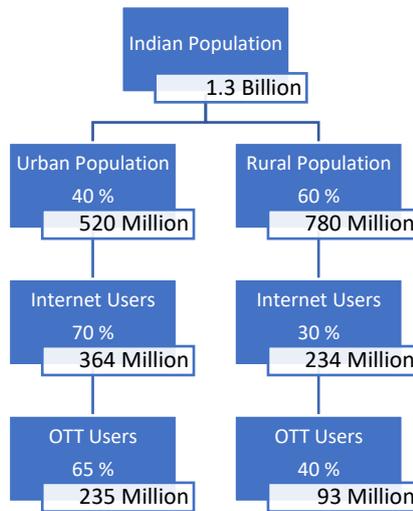
Age Groups	Urban Male	Urban Female	Rural Male	Rural Female
18-24	35	35	20	20
25-34	30	30	20	20
35-44	25	25	18	18
45-54	25	25	18	18
55+	20	20	15	15
Total	135	135	91	91

(all figures are in Millions)

### 2.4 Video Streaming market size

- Assumption- We will focus on Indian market for this problem statement and carry out market sizing for Indian population.

- India has roughly 330 million OTT users with around 180 million coming from Urban population and 140 million coming from Rural population.



- We can further divide the users on the basis of Age groups and Genders.

Age Groups	Urban Male	Urban Female	Rural Male	Rural Female
18-24	25.5	25.5	22	22
25-34	25.5	25.5	20	20
35-44	24	24	18	18
45-54	10	10	8	8
55+	5	5	3	3
Total	90	90	71	71

(all figures are in Millions)

### 3 Problem Statement

Design a video streaming service for whatsapp.

Assumptions: -

There can be two types of video streaming services – on Demand and live streaming. We will be focusing on On-Demand video streaming service

#### 3.1 Questions

- Why should whatsapp enter into video streaming service market?
- What are the opportunities, failure reasons if whatsapp enters into video streaming service market?
- What are the mitigations strategies to tackle the failure points?

#### 3.2 Defining the Problem Statement – The What

Video streaming market is a booming industry which is projected to grow at faster rates with advances in technology, internet penetration, availability of high speed-cheap internet and presence of disposable income. Whatsapp can leverage its existing user base of around 450 million users in

India on its own video streaming platform. Although the numbers may seem tempting but there can be significant challenges for Whatsapp to enter this market.

### 3.2.1 Porter's 5 forces analysis

Let's understand Whatsapp's potential entry into the market through the Porter's 5 forces model.

#### 1. Threat of New Entrants:

**High:** The threat of new entrants in the video streaming industry is significant due to relatively low barriers to entry, especially in the digital space. New companies can enter with relatively low startup costs compared to traditional media industries. However, established players like Netflix, Amazon Prime Video, and Disney+ already dominate the market, making it challenging for new entrants to gain a significant market share quickly.

#### 2. Bargaining Power of Buyers:

**Medium to High:** Buyers (consumers) have significant bargaining power in the video streaming industry due to the abundance of choices available to them. Switching costs are typically low, and consumers can easily compare prices and content offerings. However, brand loyalty and exclusive content can mitigate this power to some extent. WhatsApp's entry into the market could add another option for consumers, potentially increasing their bargaining power further.

#### 3. Bargaining Power of Suppliers:

**Medium:** Content creators and distributors hold some bargaining power, particularly those with highly sought-after content. Streaming platforms negotiate licensing deals with these suppliers to acquire content for their platforms. However, the proliferation of streaming services has led to increased competition among platforms for content, which could mitigate supplier power. WhatsApp's strong financial backing and user base could give it leverage in negotiating content deals.

#### 4. Threat of Substitutes:

**Medium to High:** The threat of substitutes in the video streaming industry is relatively high due to the availability of alternative entertainment options, such as traditional TV, movie theaters, gaming, and social media platforms. To mitigate this threat, streaming services invest in exclusive content, original programming, and user-friendly interfaces to differentiate themselves and retain subscribers.

#### 5. Competitive Rivalry:

**High:** The video streaming industry is characterized by intense competition among established players and new entrants. Key players like Netflix, Amazon Prime Video, Disney+, Hulu, and others vie for market share through aggressive content acquisition, technological innovation, and marketing campaigns. Differentiation through content, pricing, and user experience is crucial for maintaining a competitive edge. WhatsApp's entry into the market would further intensify competition, particularly if it leverages its existing user base and integrates video streaming with its messaging platform.

In summary, while the video streaming industry offers significant opportunities for growth and innovation, it is also highly competitive and dynamic. WhatsApp's entry into this market would face challenges related to competition, content acquisition, and differentiation, but its strong brand recognition and user base could provide a foundation for success.

### 3.3 Defining the reason to build this service – The Why

- **Leverage Existing User Base:** WhatsApp already boasts a massive user base, providing a ready audience for a video streaming service.
- **Monetization Potential:** Video streaming services offer significant revenue streams through subscription fees, advertising, and partnerships.
- **Increased User Engagement:** Integrating video streaming within WhatsApp can enhance user engagement, as users spend more time within the app for both messaging and entertainment purposes.
- **Competitive Edge:** WhatsApp could maintain competitiveness by offering its own streaming service.
- **Diversification of Services:** Diversifying into video streaming allows WhatsApp to expand its offerings beyond messaging, potentially attracting new users and retaining existing ones.

### 3.4 Reasons of failures

- **Content Acquisition Costs:** Acquiring premium content can be costly. WhatsApp could mitigate this by initially focusing on user-generated content, partnering with independent creators, or licensing niche content that appeals to its target audience. Independent youtubers can be approached to stream their content on Whatsapp since youtube creators are followed by people and are in demand.
- **Technical Challenges:** Building a robust video streaming platform requires significant technical expertise. WhatsApp could partner with established streaming service providers or invest in talent and infrastructure to ensure seamless video delivery.
- **Competitive Landscape:** WhatsApp would face stiff competition from established players like Netflix, Amazon Prime Video, and Disney+. To mitigate this, WhatsApp could differentiate its offering through unique features, personalized recommendations, or exclusive content partnerships. Whatsapp had launched channels feature recently. It can onboard sought after content creators from various platforms on whatsapp to create the hype of the feature.
- **Monetization Strategy:** WhatsApp needs a solid monetization strategy to generate revenue from its video streaming service. This could include subscription plans, ad-supported content, pay-per-view options, or bundled services with other Facebook-owned platforms like Instagram and Oculus.
- **Regulatory Challenges:** Compliance with regional regulations, content censorship, and data privacy laws present challenges for any video streaming service. WhatsApp must proactively address these issues by implementing robust content moderation policies, ensuring user data protection, and staying abreast of evolving regulatory requirements.
- **User Experience:** A poor user experience, such as slow video loading times or clunky interface design, can deter users. WhatsApp should prioritize optimizing the user experience across different devices and network conditions to ensure seamless video playback and navigation.
- **Customer Support:** Inadequate customer support can lead to frustration and churn among users. WhatsApp should invest in responsive customer support channels, including in-app chat support and self-service resources, to address user queries and issues promptly.

## 4 Proposed Solution

### 4.1 Assumptions

1. WhatsApp users are interested in a video streaming service inside WhatsApp
2. WhatsApp has the technical feasibility to build the video streaming service
3. WhatsApp can handle the extra traffic from the video streaming users
4. User experience of WhatsApp won't be compromised due to video streaming service

### 4.2 High level Proposed Solution

Once WhatsApp is launched in mobile, tablet or PC devices, users will have the option to go to WhatsApp chat or WhatsAppStream. Users can also select 1 of the 2 option as default launch. Inside WhatsApp, users will have option to navigate to WhatsApp chat from WhatsAppStream or vice versa without needing to relaunch the app.

WhatsAppStream will show trending videos, movies and TV shows in a tile format. Users will be able to search according to the genre through the search bar.

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WhatsApp Options  
Choose an action  
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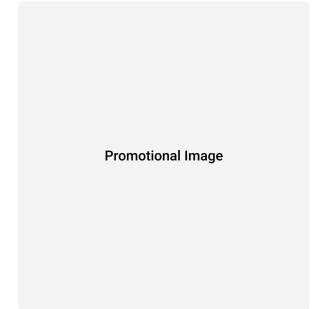
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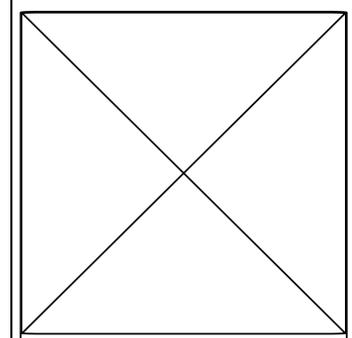
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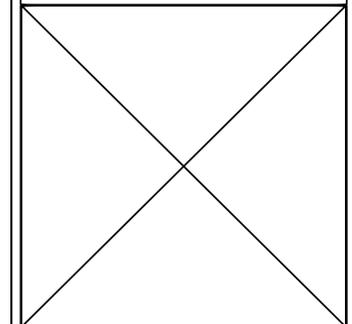
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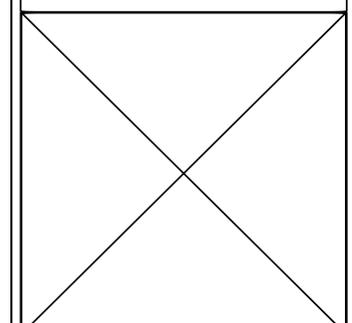
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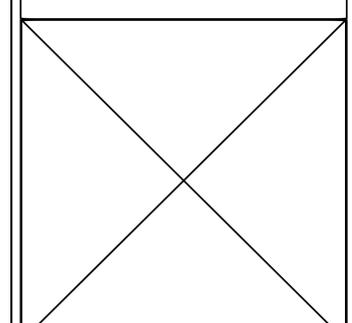
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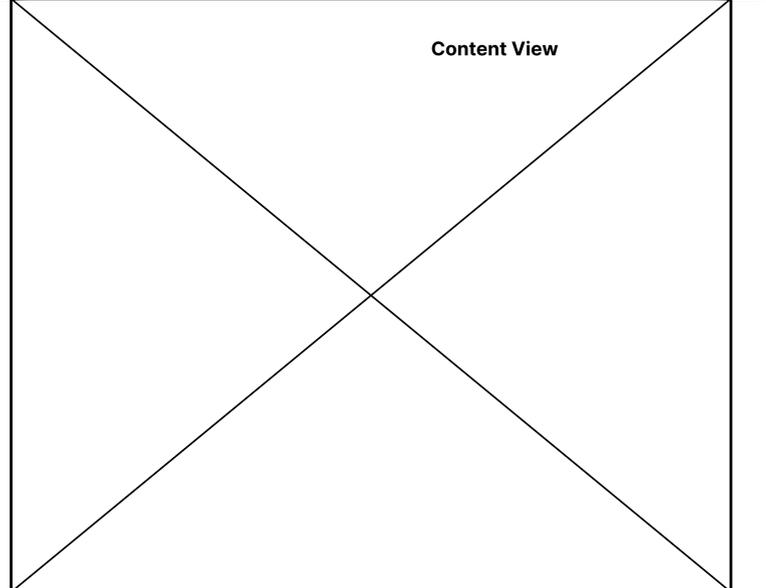


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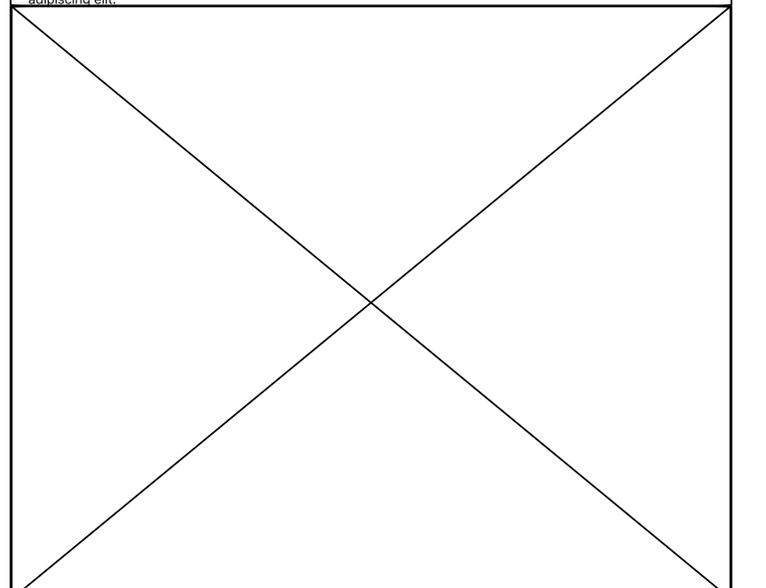


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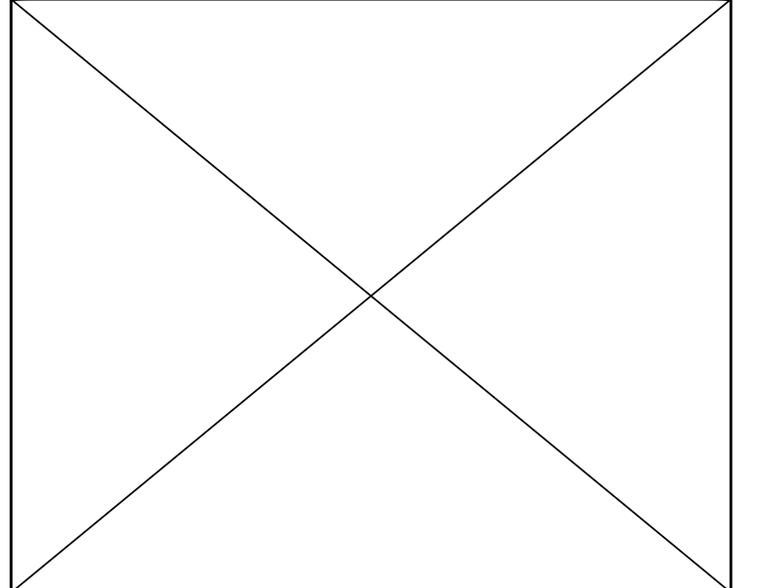
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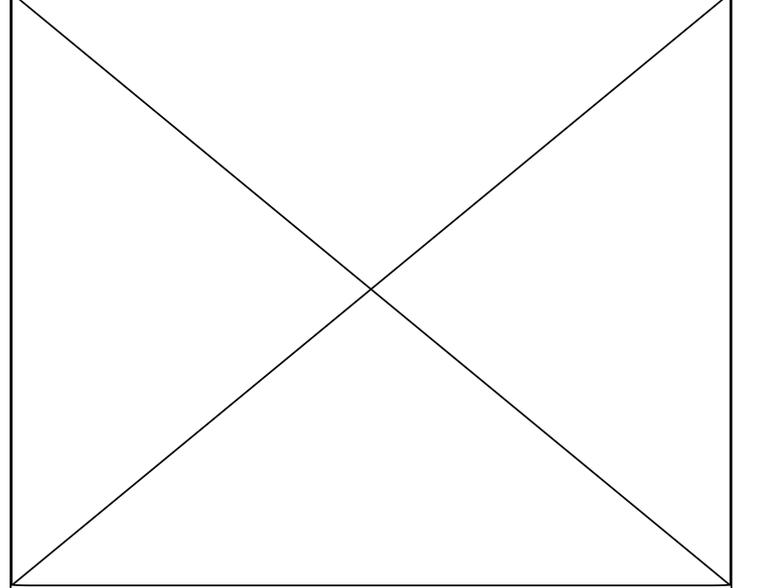
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