

A DATA DRIVEN EXPLORATION OF APPLE IPHONE IMPACT ON INDIA

Project flow:

Project Initiation:

- **Define the project's objectives, scope, and goals.**
- **Identify stakeholders and their specific needs.**

Data Collection:

- **Gather data from various sources, including market research, customer surveys, and economic indicators.**
- **Ensure data quality and relevance, etc.**

Problem and problem Understanding:

Market Penetration:

- **Determine the extent to which Apple's iPhone has penetrated the Indian smartphone market, including market share and growth trends.**

Customer Choices:

- **Analyze consumer preferences, behaviors, and buying patterns related to iPhones compared to other smartphone brands.**

Sociological Developments:

- **Investigate how the introduction of iPhones has influenced societal behaviors, communication, and lifestyles in India.**

Economic Effects:

- **Assess the economic impact, such as job creation, revenue generation, and effects on related industries like app development and accessories.**

ACTIVITY 1

- Specify the business problem:
- **Explanation:** India's rapidly growing smartphone market has been significantly influenced by the presence of Apple iPhones. To perform a data-driven exploration of their impact, we need to consider several key aspects and concepts
- **Market Penetration:** This concept refers to the percentage of Apple iPhones in the overall Indian smartphone market. By analyzing market penetration, we can gauge how extensively Apple's products have been adopted in India
- **Economic Impact:** Examining how Apple iPhones contribute to India's economy is crucial. This includes assessing factors like job creation, manufacturing, and taxes generated by Apple's presence in the country.
- **Consumer Behavior:** Understanding how the introduction of Apple iPhones has influenced consumer behavior, such as spending patterns and brand loyalty, is essential.

Activity 1.1

- Business requirements
 1. **Goal:** Understand how the iPhone affects India.
 2. **Data:** Gather information from sources like sales records, surveys, and reports
 3. **Analysis:** Use tools to study the data, looking for trends and patterns.
 4. **Metrics:** Decide what to measure, like iPhone sales, market share, or user satisfaction.
 5. **Visualization:** Create charts or graphs to make the findings easy to understand.
 6. **Time:** Look at data from the past and predict future trends.
 7. **Who:** Consider different groups of users, like age, location, or income.
 8. **Competition:** Compare the iPhone's impact to other phone brands.
 9. **Ethics:** Make sure you follow the rules and protect people's privacy.

- 10. Budget:** Plan how much money and people you need.
- 11. Report:** Share what you find with others.
- 12. Action:** Use the insights to make decisions and take action.
- 13. Timeframe:** Set a schedule for the project.
- 14. People:** Identify who's interested and involved.
- 15. Risks:** Think about what might go wrong and how to fix it.
- 16. Compliance:** Make sure you follow the law.

Activity 2:

- Literature survey

Define the Scope: Determine the specific aspects of the impact you want to explore, such as economic, social, or technological. **Identify Keywords:** List relevant keywords like "Apple iPhone," "India," "impact," and "effect." **Search Databases:** Use academic databases like Google Scholar, JSTOR, or academic journals to search for research articles, reports, and studies related to your topic.

- Business or social impact:

The Apple iPhone's introduction in India has driven both significant business growth for Apple and social impact by transforming how people communicate and access information.

Data collection and preparation

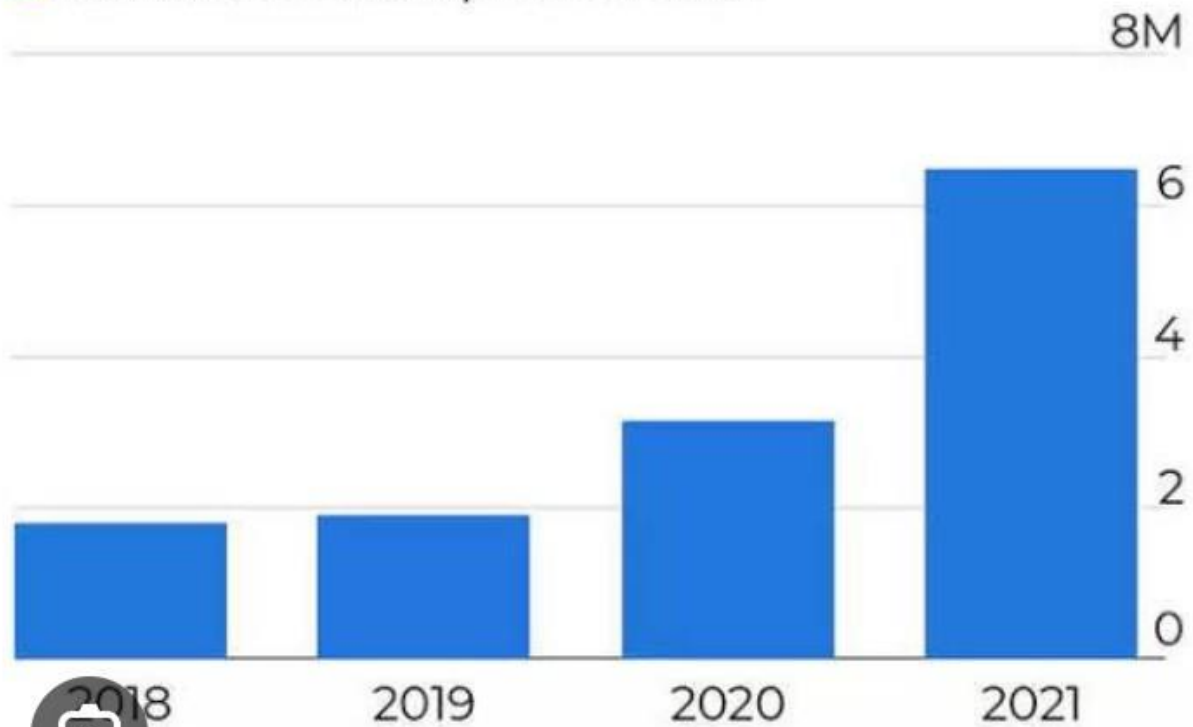
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Product Name	Product URL	Brand	Sale Price	Mrp	Discount Percentage	Number Of Ratings	Number Of Review	Upc	Star Rating	Ram		
2	APPLE iPhone 8 Plus (Gold, 64 GB)	https://www.apple.com/iphone8plus/	Apple	49900	49900	0	3431	356	MOBEXRGV7EHHTG	4.6	2 GB		
3	APPLE iPhone 8 Plus (Space C	https://www.apple.com/iphone8plus/	Apple	84900	84900	0	3431	356	MOBEXRGVAC6TJTA	4.6	2 GB		
4	APPLE iPhone 8 Plus (Silver, 2	https://www.apple.com/iphone8plus/	Apple	84900	84900	0	3431	356	MOBEXRGVGETABX	4.6	2 GB		
5	APPLE iPhone 8 (Silver, 256 GB)	https://www.apple.com/iphone8/	Apple	77000	77000	0	11202	794	MOBEXRGVMZWUHE	4.5	2 GB		
6	APPLE iPhone 8 (Gold, 256 GB)	https://www.apple.com/iphone8/	Apple	77000	77000	0	11202	794	MOBEXRGVFK7PFE	4.5	2 GB		
7	APPLE iPhone 8 Plus (Silver, 6	https://www.apple.com/iphone8plus/	Apple	49900	49900	0	3431	356	MOBEXRGVQGYYPE	4.6	2 GB		
8	APPLE iPhone 8 Plus (Space C	https://www.apple.com/iphone8plus/	Apple	49900	49900	0	3431	356	MOBEXRGVQKBREZ	4.6	2 GB		
9	APPLE iPhone 8 (Space Grey,	https://www.apple.com/iphone8/	Apple	77000	77000	0	11202	794	MOBEXRGVZFZGZEV	4.5	2 GB		
10	APPLE iPhone XS Max (Silver,	https://www.apple.com/iphonexsmax/	Apple	89900	89900	0	1454	149	MOBFP44E2XAHN8V	4.6	4 GB		
11	Apple iPhone XR (PRODUCT)R	https://www.apple.com/iphonexr/	Apple	41999	52000	20	79512	6796	MOBFBZ7ZHCQ3PA	4.6	4 GB		
12	Apple iPhone XR (Black, 64 GB)	https://www.apple.com/iphonexr/	Apple	39999	47000	16	79512	6796	MOBFBZ7ZRHGV4GN	4.6	4 GB		
13	Apple iPhone XR (Coral, 128 GB)	https://www.apple.com/iphonexr/	Apple	41999	52000	20	79582	6804	MOBFBZ7ZS6GFSUA	4.6	4 GB		
14	Apple iPhone XR (Black, 128 GB)	https://www.apple.com/iphonexr/	Apple	41999	52000	20	79512	6796	MOBFBZ7ZYWNFGZL	4.6	3 GB		
15	Apple iPhone XR (White, 128 GB)	https://www.apple.com/iphonexr/	Apple	41999	52000	20	79512	6796	MOBFBZ7ZY3HCDZJ	4.6	4 GB		
16	APPLE iPhone 11 Pro Max (Gold)	https://www.apple.com/iphone11pro/	Apple	131900	131900	0	1078	101	MOBPKCTS7HCHSP	4.7	4 GB		
17	APPLE iPhone 11 Pro Max (Gold)	https://www.apple.com/iphone11pro/	Apple	117100	117100	0	1078	101	MOBPKCTSAFAYNS4	4.7	4 GB		
18	APPLE iPhone 11 Pro Max (Midnight)	https://www.apple.com/iphone11pro/	Apple	131900	131900	0	1078	101	MOBPKCTSCAAKGG	4.7	4 GB		
19	APPLE iPhone 11 Pro Max (Silver)	https://www.apple.com/iphone11pro/	Apple	117100	117100	0	1078	101	MOBPKCTSKDMKQJ	4.7	4 GB		
20	APPLE iPhone 11 Pro (Midnight)	https://www.apple.com/iphone11pro/	Apple	74999	106000	29	7089	523	MOBPKCTSNQTO3RF	4.6	4 GB		
21	APPLE iPhone 11 Pro (Space C	https://www.apple.com/iphone11pro/	Apple	117900	140300	15	7089	523	MOBPKCTSRTHQTI	4.6	4 GB		
22	APPLE iPhone 11 Pro Max (Midnight)	https://www.apple.com/iphone11pro/	Apple	117100	117100	0	1078	101	MOBPKCTSRYPAGN	4.7	4 GB		
23	APPLE iPhone 11 Pro (Midnight)	https://www.apple.com/iphone11pro/	Apple	117900	140300	15	7089	523	MOBPKCTSSJCWYG	4.6	4 GB		
24	APPLE iPhone 11 Pro (Space C	https://www.apple.com/iphone11pro/	Apple	99900	121300	17	7081	522	MOBPKCTSWQYSA5	4.6	4 GB		
25	Apple iPhone SE (White, 256 GB)	https://www.apple.com/iphonese/	Apple	44999	54900	18	99909	8161	MOBFRFHPZCHAPJ	4.5	2 GB		
26	APPLE iPhone 12 Pro (Silver, 5	https://www.apple.com/iphone12pro/	Apple	140900	149900	6	542	42	MOBFWBYZUYE2B1	4.5	4 GB		
27	APPLE iPhone 12 Pro Max (Pha	https://www.apple.com/iphone12pro/	Apple	130900	139900	6	580	45	MOBFWBYZB5TACV	4.6	6 GB		
28	APPLE iPhone 12 Mini (White,	https://www.apple.com/iphone12mini/	Apple	64900	74900	13	740	64	MOBFWBYZAGXRD	4.5	4 GB		
29	APPLE iPhone 12 Pro (Graphite)	https://www.apple.com/iphone12pro/	Apple	120900	129900	6	545	42	MOBFWBYZBA3BUB	4.5	6 GB		
30	APPLE iPhone 12 Mini (White,	https://www.apple.com/iphone12mini/	Apple	59900	69900	14	740	64	MOBFWBYZBH4CEC	4.5	4 GB		
31	APPLE iPhone 12 (White, 128	https://www.apple.com/iphone12/	Apple	79900	84900	10	2101	180	MOBFWBYZBTZFWJ	4.6	6 GB		
32	APPLE iPhone 12 Pro (Graphite)	https://www.apple.com/iphone12pro/	Apple	110900	119900	7	545	42	MOBFWBYZBZ796V	4.5	6 GB		
33	APPLE iPhone 12 Pro Max (Gold)	https://www.apple.com/iphone12pro/	Apple	130900	139900	6	580	45	MOBFWBYZEP6QJ5	4.6	6 GB		
34	APPLE iPhone 12 Pro Max (Gold)	https://www.apple.com/iphone12pro/	Apple	120900	129900	6	580	45	MOBFWBYZFDGQ5	4.6	6 GB		
35	APPLE iPhone 12 Mini (Black,	https://www.apple.com/iphone12mini/	Apple	64900	74900	13	730	63	MOBFWBYZHDAMP	4.5	4 GB		
36	APPLE iPhone 12 Mini (Blue,	https://www.apple.com/iphone12mini/	Apple	64900	74900	13	730	63	MOBFWBYZJUS8PH	4.5	4 GB		
37	APPLE iPhone 12 (Black, 128	https://www.apple.com/iphone12/	Apple	79900	84900	10	2101	180	MOBFWBYZK3HACR	4.6	6 GB		
38	APPLE iPhone 12 (Blue, 128 GB)	https://www.apple.com/iphone12/	Apple	79900	84900	10	2101	180	MOBFWBYZKP29V9	4.6	6 GB		
39	APPLE iPhone 12 Pro Max (Silver)	https://www.apple.com/iphone12pro/	Apple	120900	129900	6	580	45	MOBFWBYZNSNVG	4.6	6 GB		
40	APPLE iPhone 12 Mini (Red, 6	https://www.apple.com/iphone12mini/	Apple	59900	69900	14	740	64	MOBFWBYZNVWGA	4.5	6 GB		
41	APPLE iPhone 12 Pro Max (Gold)	https://www.apple.com/iphone12pro/	Apple	120900	129900	6	580	45	MOBFWBYZQVK7T7	4.6	6 GB		
42	APPLE iPhone 12 (Green, 128	https://www.apple.com/iphone12/	Apple	79900	84900	10	2092	178	MOBFWBYZQXLEHF	4.6	6 GB		
43	APPLE iPhone 12 Pro (Pacific	https://www.apple.com/iphone12pro/	Apple	140900	149900	6	545	42	MOBFWBYZTH5XKM	4.5	4 GB		
44	APPLE iPhone 12 (White, 64 GB)	https://www.apple.com/iphone12/	Apple	70900	79900	11	2101	180	MOBFWBYZTK33WB	4.6	6 GB		
45	APPLE iPhone 12 (Black, 64 GB)	https://www.apple.com/iphone12/	Apple	70900	79900	11	2092	178	MOBFWBYZL9FWKJ	4.6	6 GB		
46	APPLE iPhone 12 (Red, 128 GB)	https://www.apple.com/iphone12/	Apple	79900	84900	10	2101	180	MOBFWBYZLHFPW	4.6	6 GB		
47	APPLE iPhone 12 Mini (Black,	https://www.apple.com/iphone12mini/	Apple	59900	69900	14	740	64	MOBFWBYZDSEGB5	4.5	4 GB		
48	APPLE iPhone 12 Pro (Pacific)	https://www.apple.com/iphone12pro/	Apple	110900	119900	7	545	42	MOBFWBYZQXSCCE	4.5	6 GB		
49	APPLE iPhone 12 Pro Max (Pha	https://www.apple.com/iphone12pro/	Apple	120900	129900	6	580	45	MOBFWBYZASKHZ	4.6	6 GB		
50	APPLE iPhone 12 Pro Max (Silver)	https://www.apple.com/iphone12pro/	Apple	130900	139900	6	580	45	MOBFWBYZD4HAMJ	4.6	6 GB		
51	APPLE iPhone 12 Pro Max (Gold)	https://www.apple.com/iphone12pro/	Apple	130900	139900	6	580	45	MOBFWBYZD7WBJH	4.6	6 GB		
52	APPLE iPhone 11 (White, 128 GB)	https://www.apple.com/iphone11/	Apple	54999	59900	8	43707	3357	MOBFWQGB7KKRQD	4.6	4 GB		
53	APPLE iPhone 11 (Red, 128 GB)	https://www.apple.com/iphone11/	Apple	54999	59900	8	43707	3357	MOBFWQGBE2TNK9	4.6	4 GB		
54	APPLE iPhone SE (White, 64 GB)	https://www.apple.com/iphonese/	Apple	29999	39900	24	95807	8154	MOBFWQGBQWQVQ	4.5	2 GB		
55	APPLE iPhone SE (Black, 128	https://www.apple.com/iphonese/	Apple	34999	44900	22	95809	8161	MOBFWQGBHUEVZF	4.5	2 GB		
56	APPLE iPhone SE (White, 128	https://www.apple.com/iphonese/	Apple	34999	44900	22	95807	8154	MOBFWQGBJEHMUL	4.5	2 GB		
57	APPLE iPhone SE (Red, 128 GB)	https://www.apple.com/iphonese/	Apple	34999	44900	22	95909	8161	MOBFWQGBUTVFKP	4.5	2 GB		
58	APPLE iPhone 11 (Black, 128	https://www.apple.com/iphone11/	Apple	54999	59900	8	43470	3331	MOBFWQGBKRYBP5	4.6	4 GB		
59	APPLE iPhone SE (Black, 64 GB)	https://www.apple.com/iphonese/	Apple	29999	39900	24	95909	8161	MOBFWQGBR3MK7A	4.5	4 GB		
60	APPLE iPhone 11 (Purple, 64 GB)	https://www.apple.com/iphone11/	Apple	46999	54900	14	43470	3331	MOBFWQGBTF7KQJ	4.6	4 GB		
61	APPLE iPhone 11 (White, 64 GB)	https://www.apple.com/iphone11/	Apple	46999	54900	14	43470	3331	MOBFWQGBVWVEH	4.6	4 GB		
62	APPLE iPhone 11 (Black, 64 GB)	https://www.apple.com/iphone11/	Apple	46999	54900	14	43470	3331	MOBFWQGBGJCEY	4.6	4 GB		
63	APPLE iPhone 11 (Red, 64 GB)	https://www.apple.com/iphone11/	Apple	46999	54900	14	43470	3331	MOBFWQGBRYVJFC	4.6	4 GB		

- OhhUnderstand the data:

Apple in India

Sales of the iPhone have climbed to their highest yet

■ Number of smartphones sold

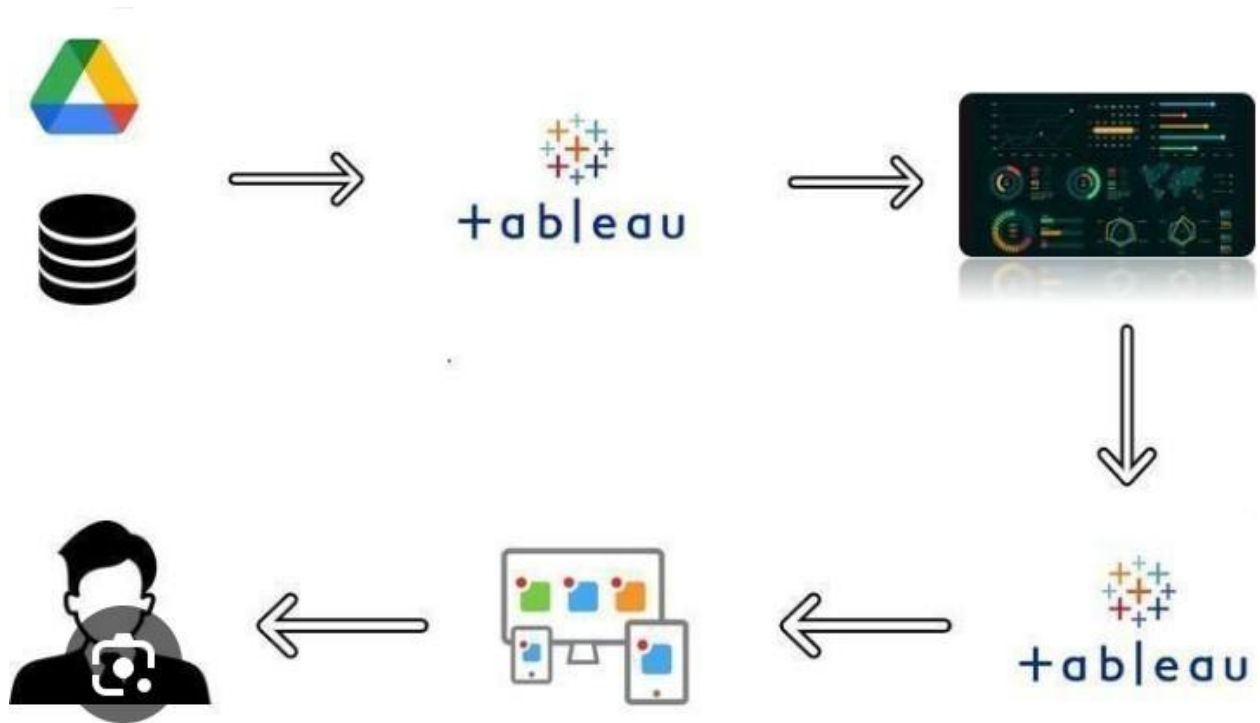


Source: Counterpoint

- Connect datasets with tabulea:



Data preparation:



- Data visualization

APPLICATIONS of Data Visualization



Business

Track and analyze revenues and sales KPIs, and identify trends and patterns in customer behavior and markets.



Healthcare

Identify and flag medical problems and detect health problems or any anomalies.



Science & Research

Present complex data and results in a more accessible format.



Marketing

Visuals and reports help analyze customer patterns, surveys, social media trends, and market forecasting.



Journalism

Present data-driven stories to help readers understand and contextualize complex issues and events.



Government & Public Policy

Analyze and communicate complex data on public health, crime, economy, etc. and make more informed decisions.



Education

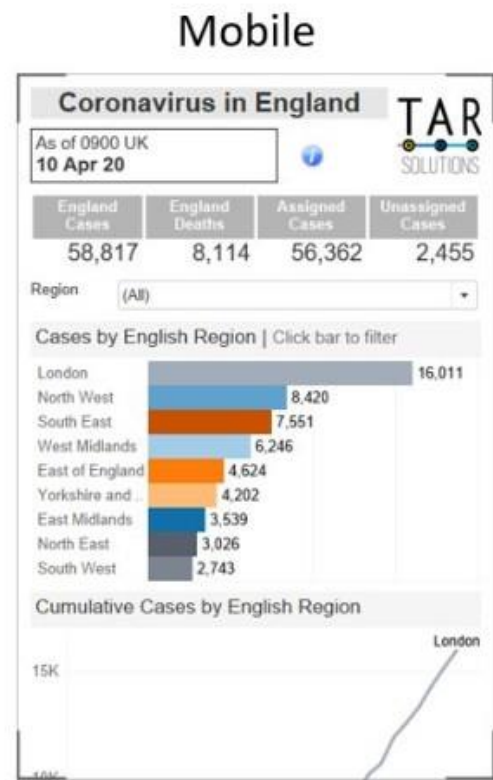
Enable students to understand and interpret data and develop critical thinking skills.



Real Estate

Map neighborhoods and analyze home price patterns, average market time, and consumer behavior.

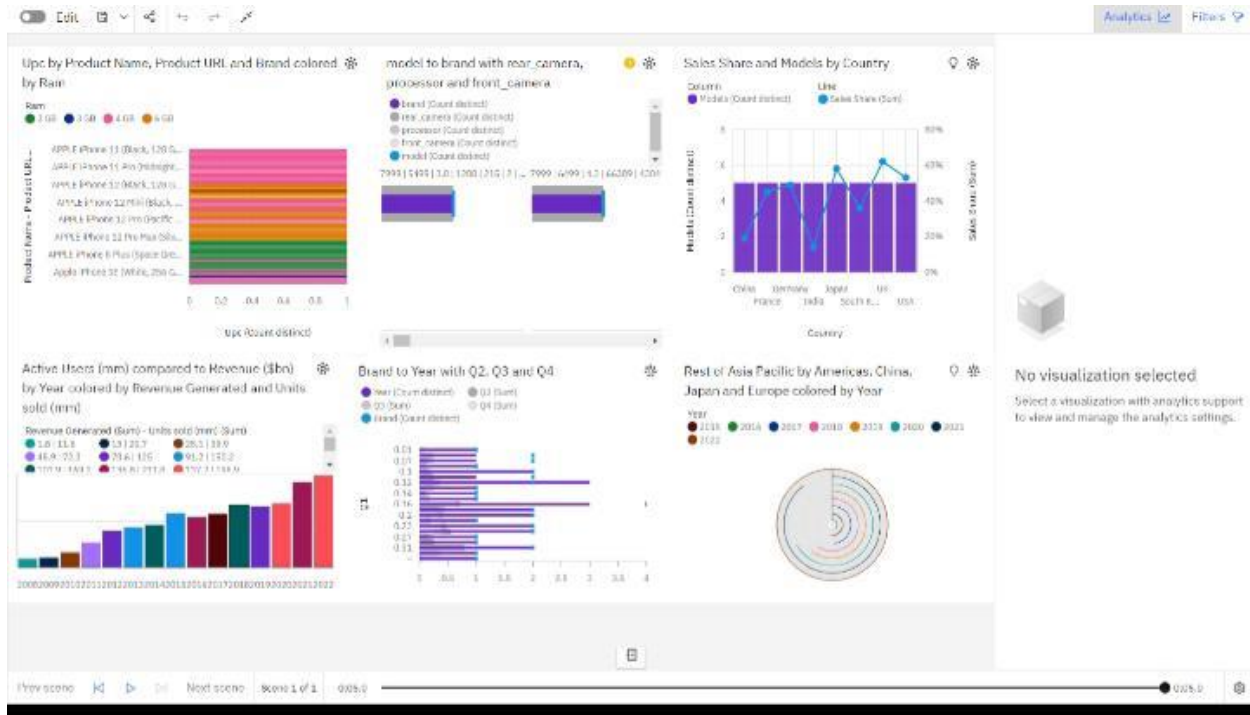
- Dashboard:



- Story:

Title: “Data-Driven Insight: Apple iPhone’s Impact on India” Once upon a time in the bustling streets of India, a digital revolution was quietly unfolding. This transformation was driven by the iconic Apple iPhone, and its impact was far-reaching, shaping the lives of millions. Our story begins with a snapshot of India in the early 2000s. Mobile phones were a luxury, and the market was dominated by basic feature phones. However, in 2007, Apple introduced the iPhone, a sleek and revolutionary device that would go on to change the tech landscape in India. The first data point that illustrates the iPhone’s impact is the exponential growth in smartphone usage. In 2007, only a fraction of the Indian population owned a smartphone. Fast forward to today, and India is one of the largest smartphone markets in the world, with a significant portion of users sporting iPhones. This surge in smartphone adoption brought about several socio-economic changes. With iPhones, Indians gained access to the internet, opening up a world of information and opportunities. E-commerce, for example, witnessed a tremendous boost. People could shop online, access education, and explore new job prospects. The iPhone also became a symbol of prestige and aspiration. Owning an iPhone was not just about owning a smartphone; it was about owning a piece of global innovation. Data shows that the demand for iPhones in India continues to rise, with sales soaring year after year. Furthermore, the app ecosystem that came with iPhones provided a platform for Indian developers to create and distribute their own apps. This contributed to the growth of the Indian tech industry and resulted in countless jobs and businesses being established. The data-driven exploration also reveals the challenges. The cost of owning an iPhone was a significant hurdle for many Indians. To address this, Apple introduced more affordable models, making the iPhone accessible to a broader segment of the population. In conclusion, the data paints a vivid picture of the Apple iPhone’s profound impact on India. It’s not just a smartphone; it’s a catalyst for change, empowerment, and economic growth. As India

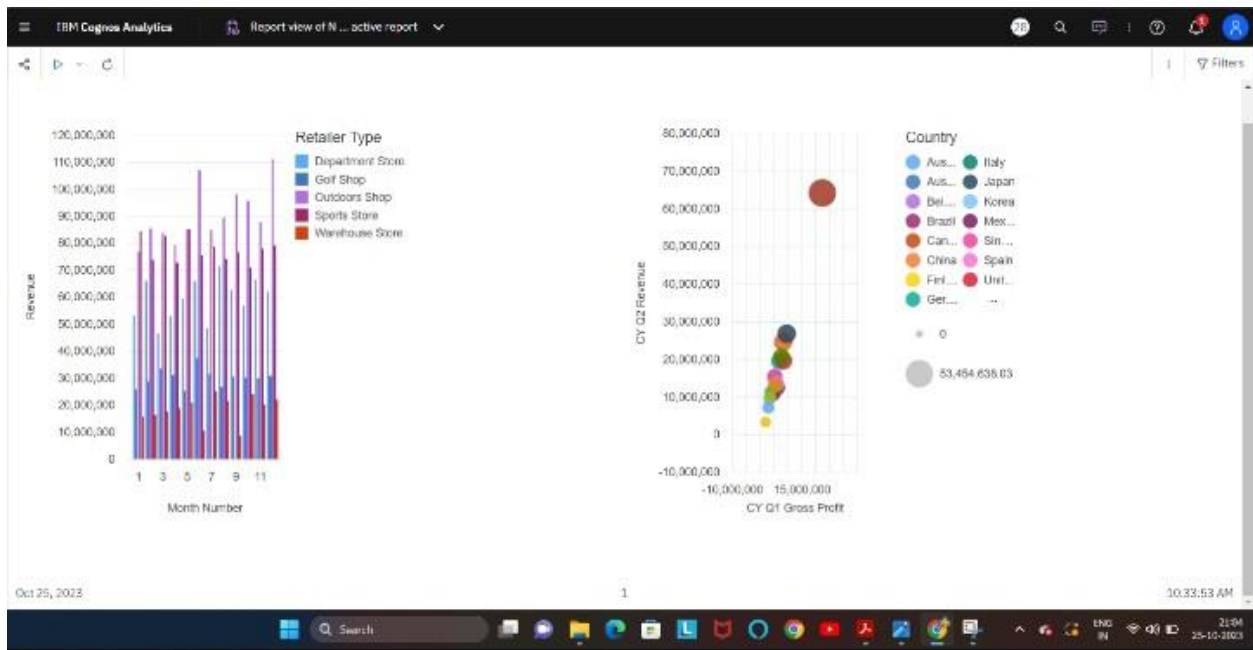
continues to bridge the digital divide, the iPhone stands as a symbol of innovation, opportunity, and a brighter future for millions.



- Performance testing:
Analyzing Apple iPhone’s economic, societal, and technological impact on India through data-driven research to assess its influence and future implications.
- Publishing:
This study provides a comprehensive, data-driven analysis of the multifaceted impact of Apple iPhones on India, shedding light on economic, societal, and cultural dimensions of this technological phenomenon.
- Project demonstration and documentation:

Our project demonstrates the profound impact of Apple iPhones on India through rigorous data analysis, and our documentation provides valuable insights for understanding its influence on the economy and society.

- Report:



Submitted by

**NM ID's of TEAM MEMBERS:1BFAB413B1ED7EA8E7E4DBCFCB97C5FC3
363186DB8B36F19B18F47F7ED09F8EBD
D11E990477F6C49BA4C439F6643C0D4E
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