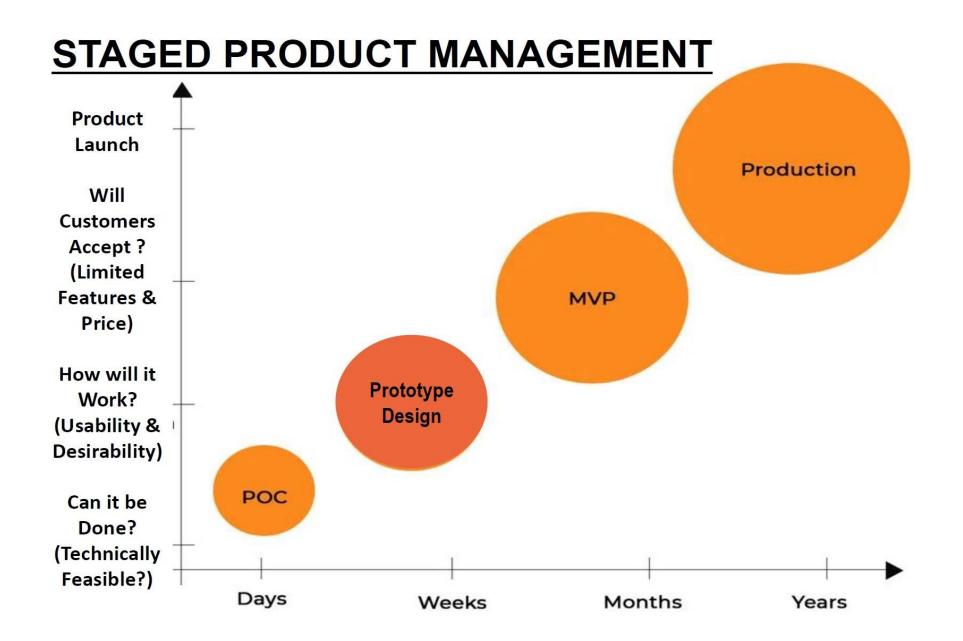
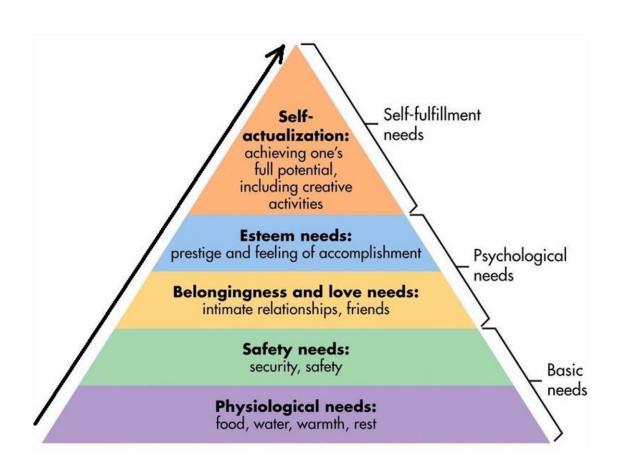
Case Study on Product Development 10th Sep 2024, Session 11





Usability

interface allows users to complete tasks quickly and accurately

Aesthetics

interface looks unique, friendly and professional

higher needs basic needs

Information

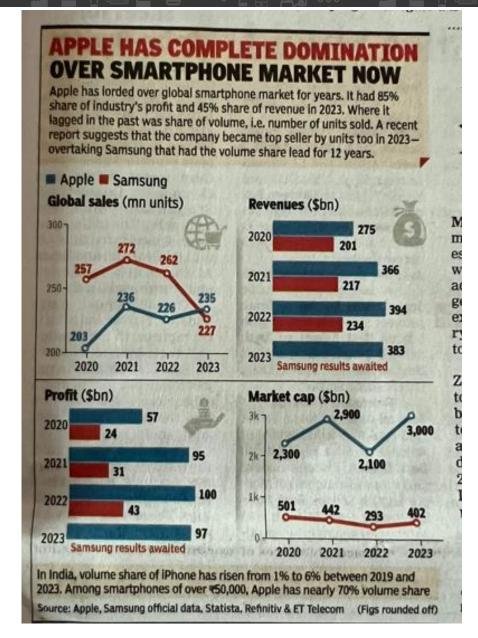
interface has correct, readable and up-to-date content

Functionality

interface works and doesn't break

User Experience Hierarchy of Needs

Today's Discussion



- Units sold
- Value Sold : Revenue / Turnover / Sales Value
- Profit: Price Cost
- Market Cap = Valuation

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LATEST APPLE MODELS BRING MANY FIRSTS

iPhone's Sweet 16! India to Rush in & Join Sales Party

Locally made series to be available globally few days after sales start

Kiran Rathee

New Delhi: In a first, made-in-India iPhone 16 series will be available across the world within the first few days of the launch of sales, multiple people familiar with the matter told ET.

Apple is scheduled to unveil the latest range on Monday and worldwide sales are likely to begin within 10-12 days.

Foxconn has commenced production of the iPhone 16 series in India, to be exported and made available in multiple cities and countries, officials said.

This may well be the first time that a global player will make available a product manufactured in Indian factories across the



When India-made devices sell after global sales begin 2023

2021

iPhone 13 iPhone 14 In a few months

2022 Within 15 days

Same day for India; after about a week outside India

iPhone 15

2024 iPhone 16

Same day for India and within a few days outside India

planned

RELATED REPORT PAGE 8 world within the first few days of the start of sa- jor. The maker of the iconic les, experts said. smartphones is diversifying pro-Achieving this

milestone four years after beginning iPhone production in India indicates the importance of the

Big Bite of Apple → 10

local manufacturing landscape for the Cupertino-based tech maduction base out of China amid Sino-US geopolitical tensions.

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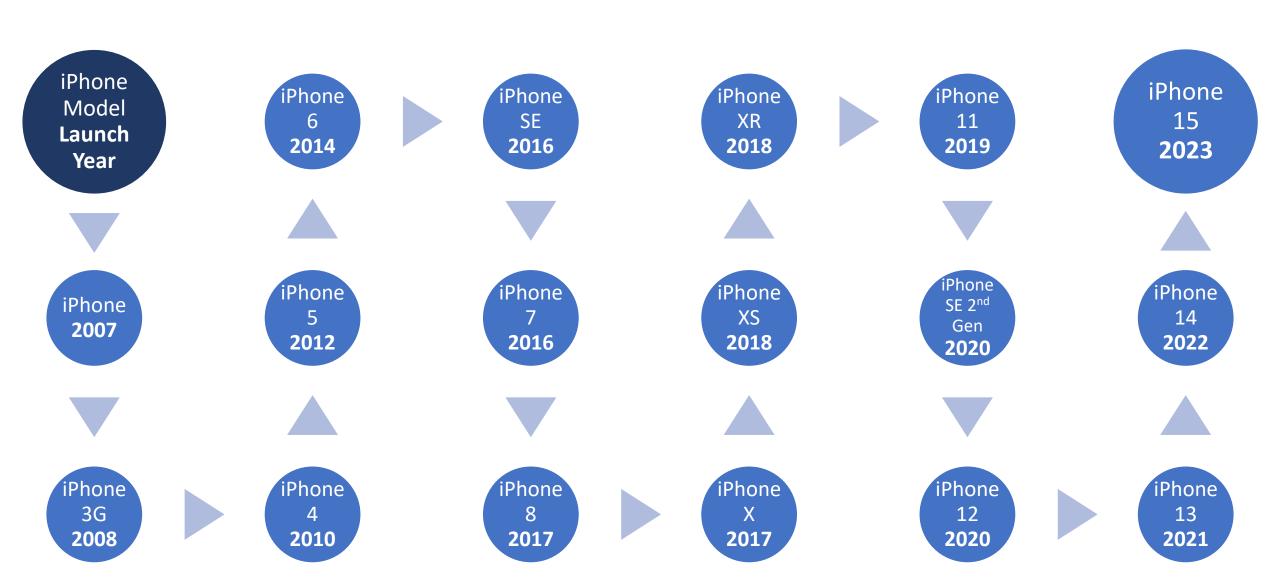
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The iPhone Journey

Timeline of Apple iPhones













Model	iPhone	iPhone 3G	iPhone 4
Launched in	2007	2008	2010
Key Features	Multi-touch interface, virtual keyboard, 2MP camera, 4GB/8GB storage	3G connectivity, GPS, App Store introduction	Retina display, FaceTime video calling, 5MP camera with LED flash, glass and stainless steel design
Price	\$ 499 (4GB) \$ 599 (8GB)	\$ 199 (8GB) with a 2-year contract	\$ 199 (16GB) with a 2-year contract







Model	iPhone 5	iPhone 6 / 6 Plus	iPhone SE
Launched in	2012	2014	2016
Key Features	Larger 4-inch display, LTE connectivity, A6 chip, Lightning connector	Larger 4.7-inch and 5.5-inch displays, Apple Pay, improved A8 chip, NFC	Compact 4-inch design with A9 chip, 12MP camera, Live Photos
Price	\$ 199 (16GB) with a 2-year contract	\$199 (16GB) / \$299 (16GB) with a 2-year contract	\$ 399 (16GB)







	Model	iPhone 7 / 7 Plus	iPhone 8 / 8 Plus	iPhone X
L	Launched in	2016	2017	2017
K	Key Features	Water resistance, dual-lens camera (7 Plus), improved battery life, no headphone jack	Wireless charging, glass back design, A11 Bionic chip, improved camera	OLED Super Retina display, Face ID, no home button, A11 Bionic chip, dual cameras with improved Portrait mode
	Price	\$ 649 (32GB) / \$ 769 (32GB)	\$ 699 (64GB) / \$ 799 (64GB)	\$ 999 (64GB)







Model	iPhone XS / XS Max	iPhone XR	iPhone 11
Launched in	2018	2018	2019
Key Features	Larger Super Retina display, A12 Bionic chip, dual SIM, improved water resistance	Liquid Retina display, A12 Bionic chip, single-lens camera, multiple color options	Dual-camera system with Ultra-Wide lens, Night mode, A13 Bionic chip, improved battery life, Triple-camera system, Super Retina XDR display, improved water resistance
Price	\$ 999 (64GB)/\$ 1,099 (64GB)	\$ 749 (64GB)	\$ 999 (64GB)







Model	iPhone SE 2 nd Gen	iPhone 12	iPhone 13
Launched in	2020	2020	2021
Key Features	A13 Bionic chip, 4.7-inch display, single-lens camera with Portrait mode	5G connectivity, Ceramic Shield front cover, A14 Bionic chip, OLED display, MagSafe, LiDAR scanner, improved triple-camera system, ProRAW photo format, 5G, MagSafe	Smaller notch, Cinematic mode for video, A15 Bionic chip, improved battery life, ProMotion 120Hz display, improved camera system with macro photography, longer battery life
Price	\$ 399 (64GB)	\$ 699 (64GB) \$ 999 (128GB)	\$ 999 (128GB)



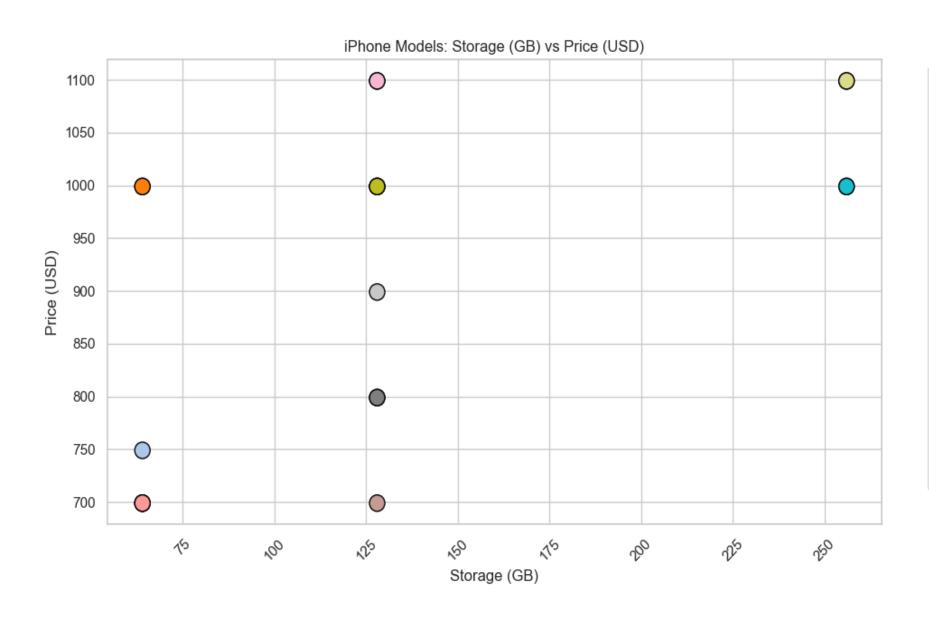


Model	iPhone 14 / 14 Plus	iPhone 14 Pro / 14 Pro Max	
Launched in	2022	2022	
Key Features	Emergency SOS via satellite, Photonic Engine for improved low-light photography, Action mode for video stabilization, Crash Detection	Dynamic Island, Always-On display, 48MP main camera, A16 Bionic chip, ProMotion 120Hz display	
Price	\$ 799 (128GB) / \$ 899 (128GB)	\$ 999 (128GB) / \$ 1,099 (128GB)	

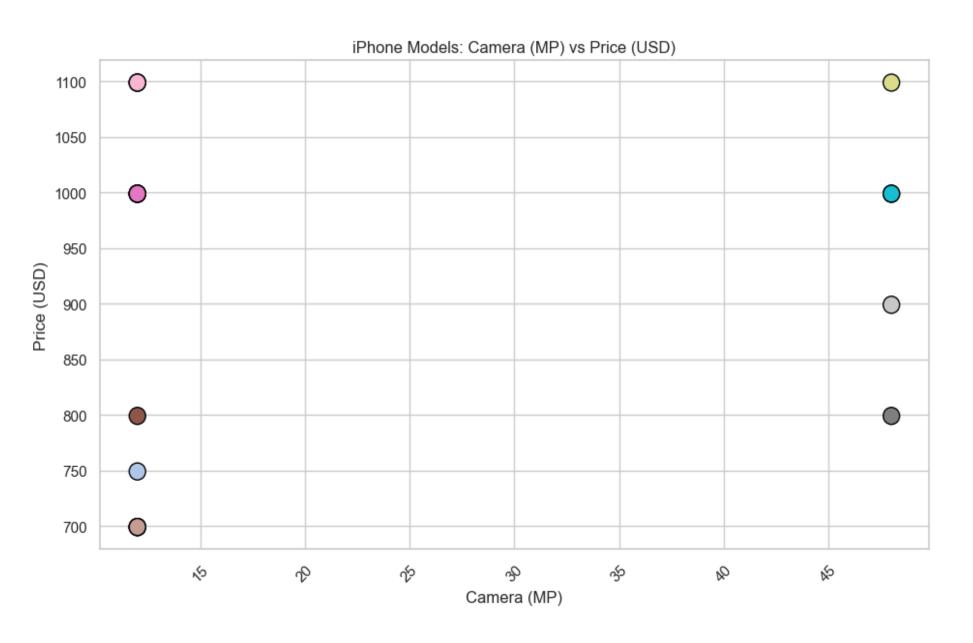




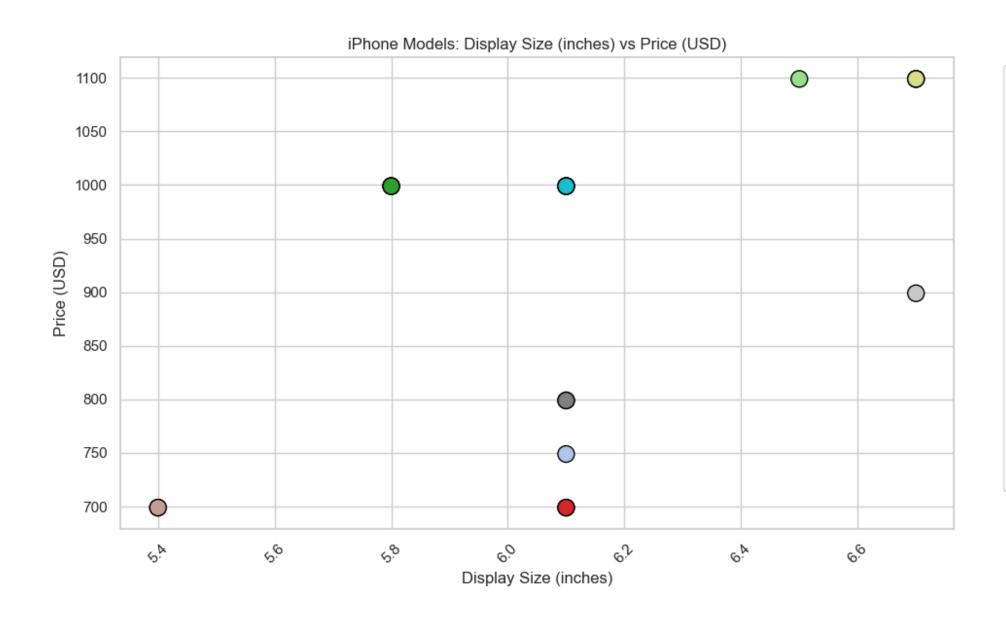
Model	iPhone 15 / 15 Plus	iPhone 15 Pro / 15 Pro Max	
Launched in 2023		2023	
Key Features	USB-C port, Dynamic Island, advanced camera system with 48MP main camera, A16 Bionic chip	Titanium design, A17 Pro chip, Action button, USB-C with faster data transfer, advanced ProMotion display	
Price	\$ 799 (128GB) / \$ 799 (128GB)	\$ 999 (128GB) / \$ 1,199 (256GB)	



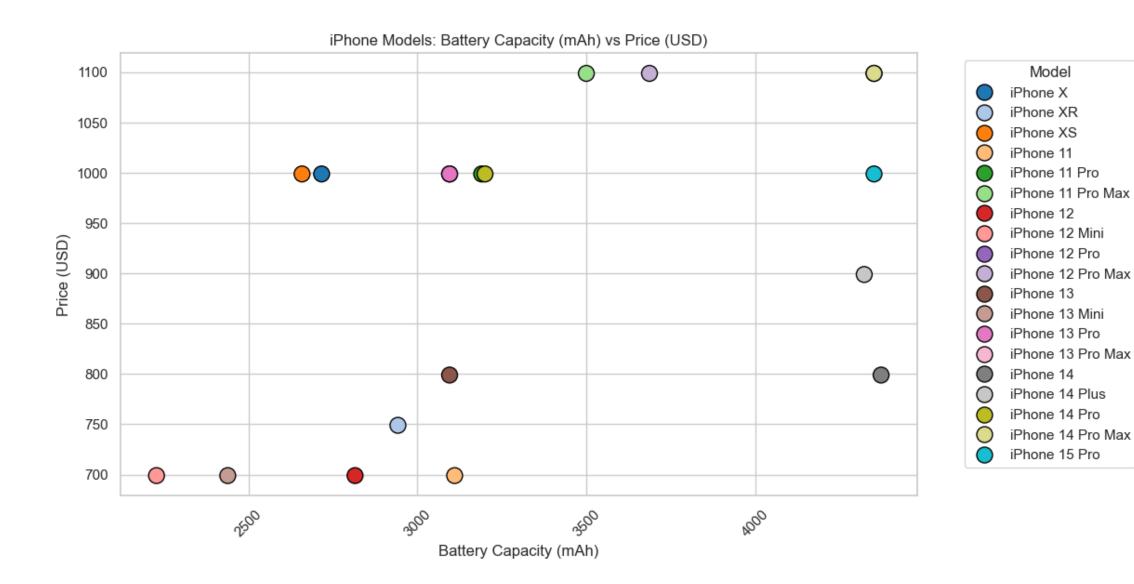
Model iPhone X iPhone XR iPhone XS iPhone 11 iPhone 11 Pro iPhone 11 Pro Max iPhone 12 iPhone 12 Mini iPhone 12 Pro iPhone 12 Pro Max iPhone 13 iPhone 13 Mini iPhone 13 Pro iPhone 13 Pro Max iPhone 14 iPhone 14 Plus iPhone 14 Pro iPhone 14 Pro Max iPhone 15 Pro







Model iPhone X iPhone XR iPhone XS iPhone 11 iPhone 11 Pro iPhone 11 Pro Max iPhone 12 iPhone 12 Mini iPhone 12 Pro iPhone 12 Pro Max iPhone 13 iPhone 13 Mini iPhone 13 Pro iPhone 13 Pro Max iPhone 14 iPhone 14 Plus iPhone 14 Pro iPhone 14 Pro Max iPhone 15 Pro



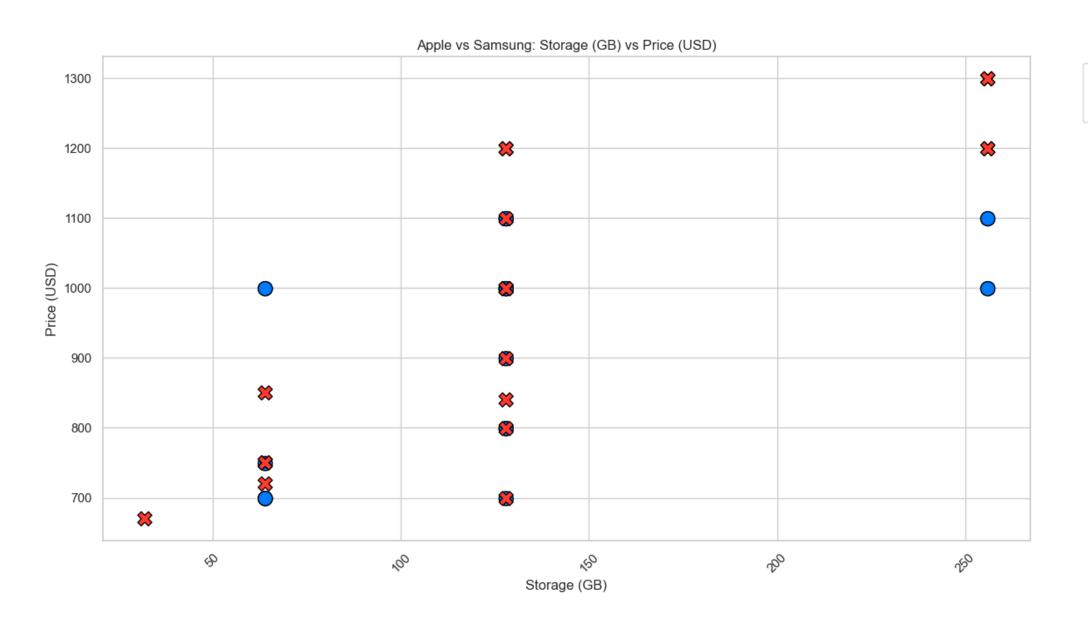
Apple vs Samsung Comparisons

Comparison: Apple Vs Samsung

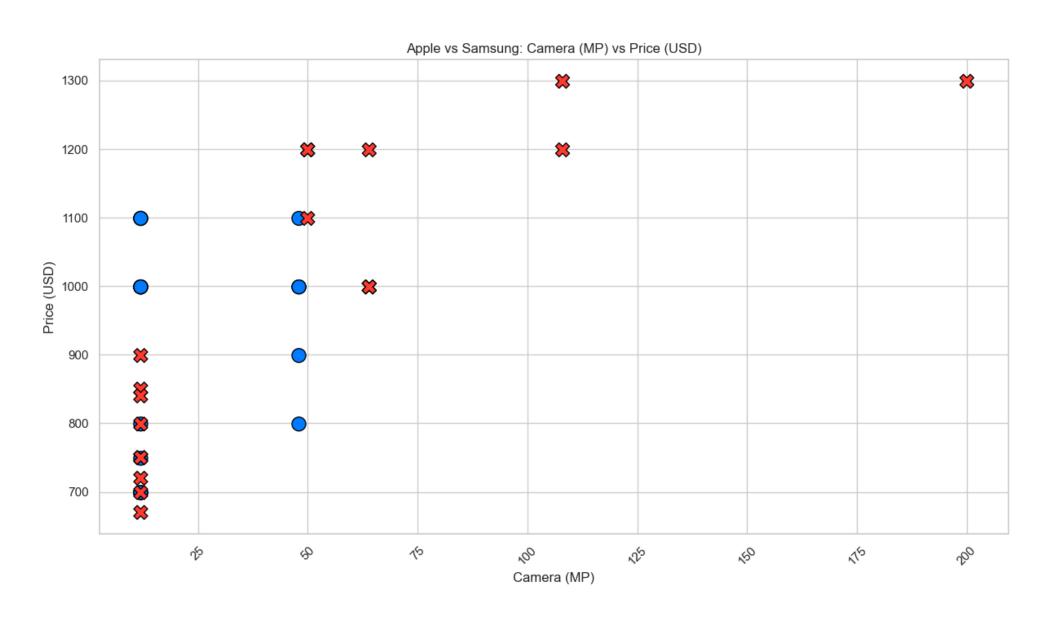


Brand

Samsung



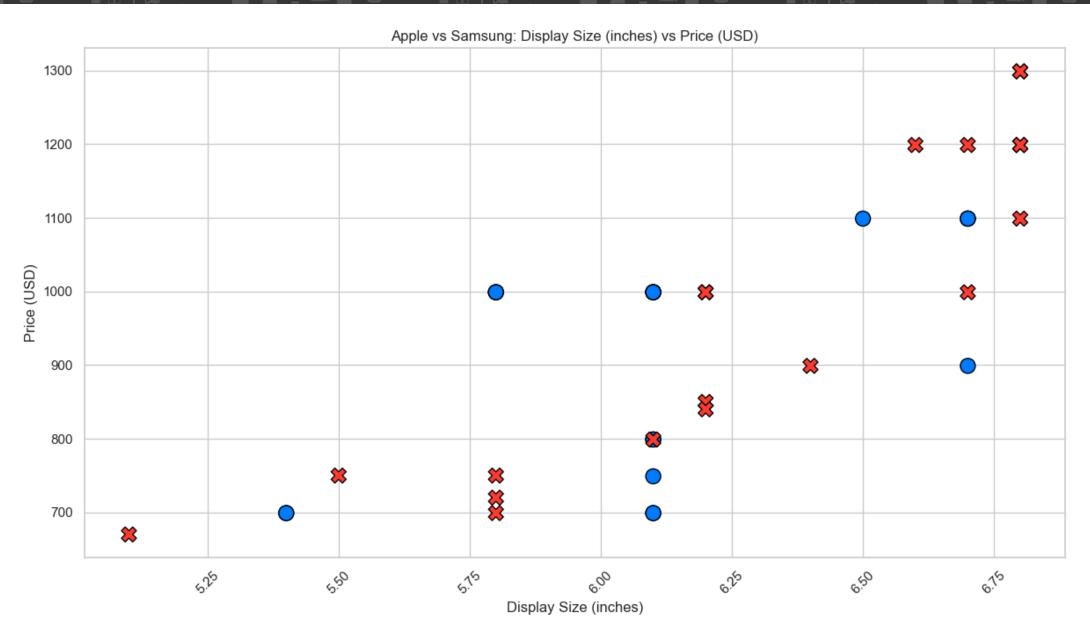




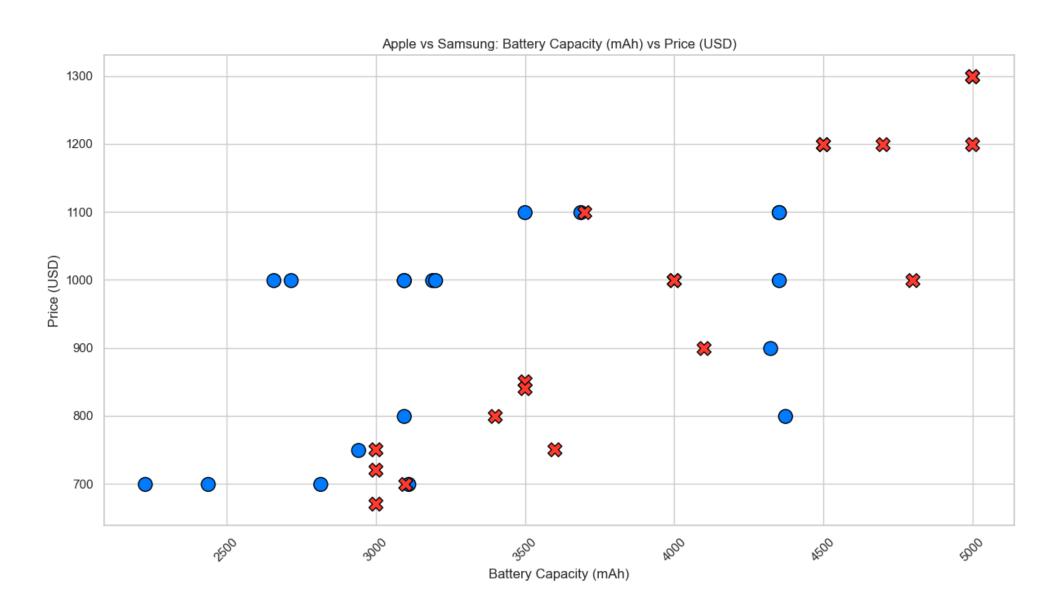


Comparison: Apple Vs Samsung









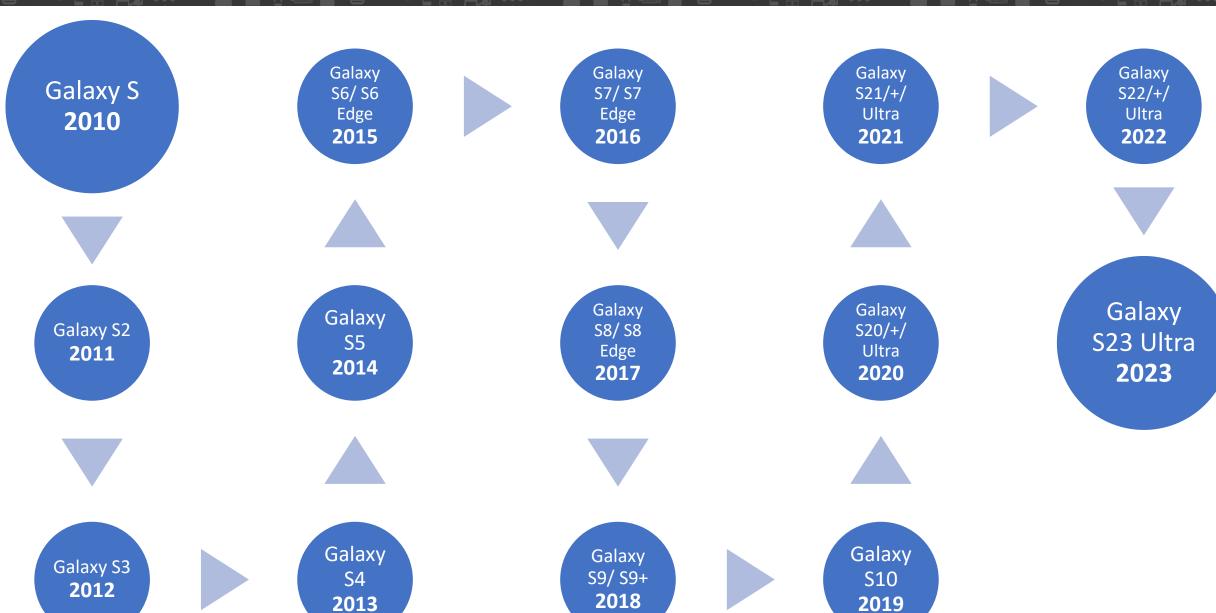


Back Ups

Samsung Top-end Phones Journey

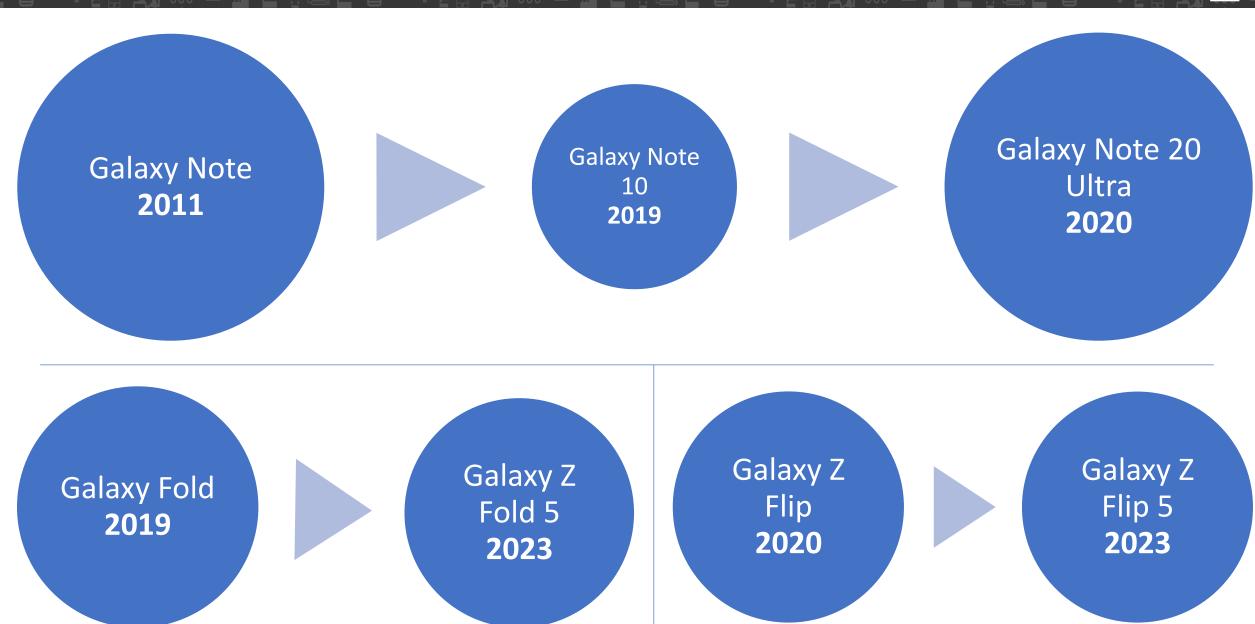
Timeline of Samsung Galaxy S Series





Timeline of Samsung Galaxy Note, Flip & Fold Series











Model	Samsung Galaxy S	Samsung Galaxy S2	Samsung Galaxy S3
Launched in	2010	2011	2012
Key Features	4.0" Super AMOLED display 5 MP camera 512 MB RAM, 8/16 GB storage 1500 mAh battery	4.3" Super AMOLED Plus display, 8 MP rear camera, 2 MP front camera, 1 GB RAM, 16/32 GB storage Android 2.3 (Gingerbread) 1650 mAh battery	4.8" HD Super AMOLED display 8 MP camera 1 GB RAM, 16/32/64 GB storage 2100 mAh battery
Price	\$ 500	\$ 550	\$600







Mo	odel	Samsung Galaxy S4	Samsung Galaxy S5	Samsung Galaxy S6 / S6 Edge
Launc	hed in	2013	2014	2015
Key Fe	eatures	5.0" Full HD Super AMOLED display 13 MP rear camera, 2 MP front camera 2 GB RAM, 16/32/64 GB storage 2600 mAh battery	5.1" Full HD Super AMOLED display 16 MP rear camera, 2 MP front camera 2 GB RAM, 16/32 GB storage 2800 mAh battery	5.1" Quad HD Super AMOLED display (S6), 16 MP rear camera, 5 MP front camera, 3 GB RAM, 32/64/128 GB storage, 2550 mAh battery
Pr	ice	\$ 650	\$ 650	\$ 700 (S6) / \$ 750 (S6 Edge)







Model	Samsung Galaxy S7 / S7 Edge	Samsung Galaxy S8 / S8+	Samsung Galaxy S9 / S9+
Launched in	2016	2017	2018
Key Features	5.1" Quad HD Super AMOLED display (S7) 12 MP rear camera, 5 MP front camera 4 GB RAM, 32/64 GB storage, Android 6.0 (Marshmallow) 3000 mAh battery (S7)	5.8" Quad HD+ Infinity Display (S8) 12 MP rear camera, 8 MP front camera 4 GB RAM, 64 GB storage Android 7.0 (Nougat) 3000 mAh battery (S8),	5.8" Quad HD+ Super AMOLED display (S9) 12 MP rear camera with variable aperture, 8 MP front camera, 4 GB RAM (S9), 64/128/256 GB storage, Android 8.0 (Oreo) 3000 mAh battery (S9)
Price	\$ 670 (S7), \$ 780 (S7 Edge)	\$ 750 (S8), \$ 850 (S8+)	\$ 720 (S9), \$ 840 (S9+)







Model	Samsung Galaxy S10	Samsung Galaxy S20 / S20+ / S20 Ultra	Samsung Galaxy S21 / S21+ / S21 Ultra
Launched in	2019	2020	2021
Key Features	6.1" Dynamic AMOLED display with Infinity-O Triple-camera setup (12 MP + 12 MP + 16 MP) 8 GB RAM, 128/512 GB storage 3400 mAh battery	6.2" Quad HD+ Dynamic AMOLED 2X display (S20) Triple rear camera setup (12 MP + 64 MP + 12 MP) 12 GB RAM, 128/512 GB storage, Android 10 4000 mAh battery	6.2" Full HD+ Dynamic AMOLED 2X display Triple rear camera setup (12 MP + 64 MP + 12 MP), 8 GB RAM, 128/256 GB storage, Android 11 4000 mAh battery
Price	\$ 899	\$ 999 (S20), \$ 1,199 (S20+), \$ 1,399 (S20 Ultra)	\$ 799 (S21), \$ 999 (S21+), \$ 1,199 (S21 Ultra)





Model	Samsung Galaxy S22 / S22+ / S22 Ultra	Samsung Galaxy S23 Ultra
Launched in	2022	2023
Key Features	6.1" Full HD+ Dynamic AMOLED 2X display, Triple rear camera setup (50 MP + 10 MP + 12 MP), 8 GB RAM, 128/256 GB, Android 12, 3700 mAh battery	6.8" Dynamic AMOLED 2X display with 120Hz refresh rate, Quad-camera setup (108 MP + 10 MP + 10 MP + 12 MP) 12 GB RAM, 256/512 GB/1 TB storage 5000 mAh battery
Price	\$ 799 (S22), \$ 999 (S22+), \$ 1,199 (S22 Ultra)	\$ 1,199









Model	Samsung Galaxy Note	Samsung Galaxy Note 10	Samsung Galaxy Note 20 Ultra
Launched in	2011	2019	2020
Key Features	5.3" HD Super AMOLED display S-Pen stylus 8 MP camera 2500 mAh battery	6.3" Dynamic AMOLED display Triple-camera setup (12 MP + 12 MP + 16 MP) 8 GB RAM, 256 GB storage 3500 mAh battery	6.9" Dynamic AMOLED 2X display with 120Hz refresh rate, Triple-camera setup (108 MP + 12 MP + 12 MP) 12 GB RAM, 128/512 GB storage, 4500 mAh battery
Price	\$ 750	\$ 949	\$ 1,299



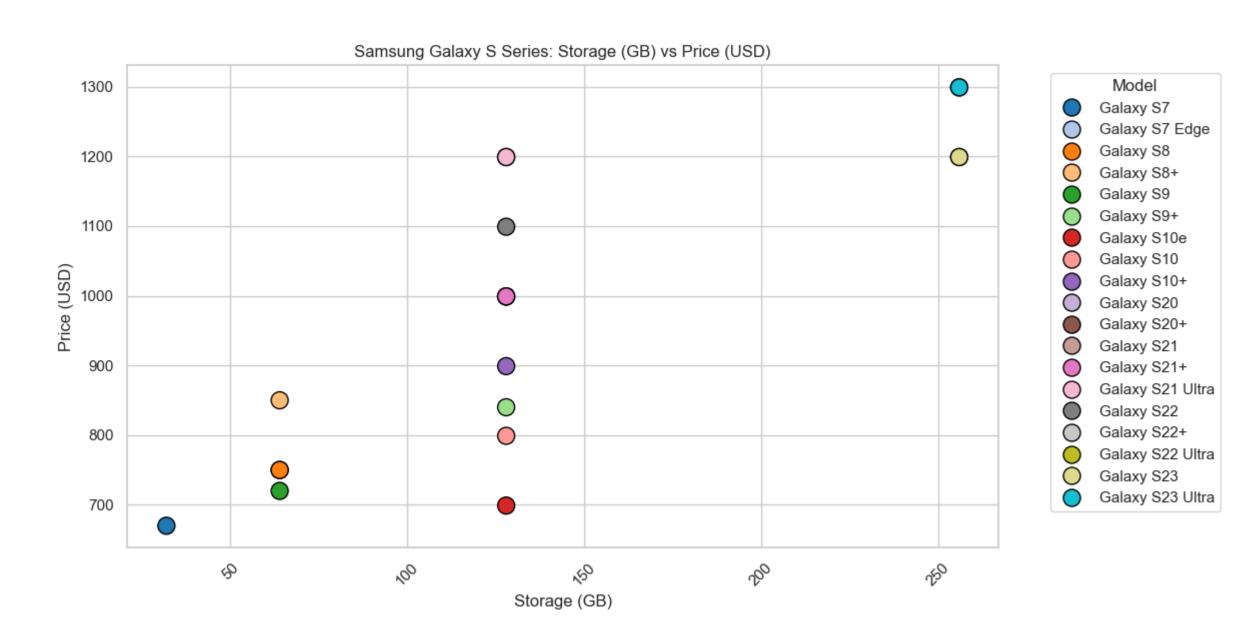


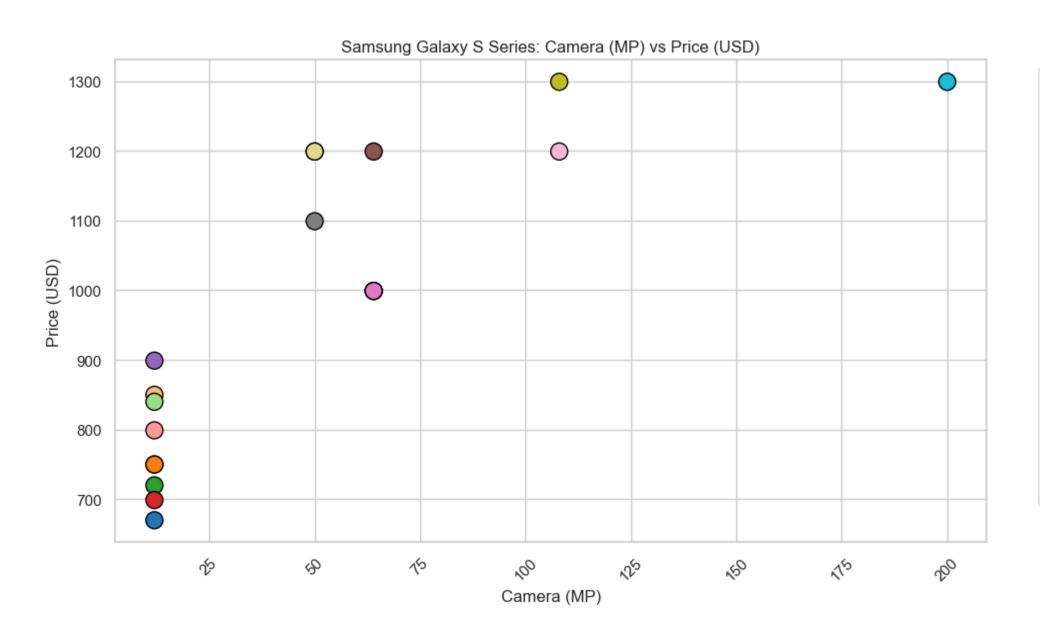
Model	Samsung Galaxy Z Flip	Samsung Galaxy Z Flip 5
Launched in	2020	2023
Key Features	6.7" Foldable Dynamic AMOLED display Dual-camera setup (12 MP + 12 MP) 8 GB RAM, 256 GB storage 3300 mAh battery	6.7" Foldable Dynamic AMOLED display with 120Hz refresh rate Dual-camera setup (12 MP + 12 MP) 8 GB RAM, 256 GB storage 3700 mAh battery
Price	\$ 1,380	\$ 999



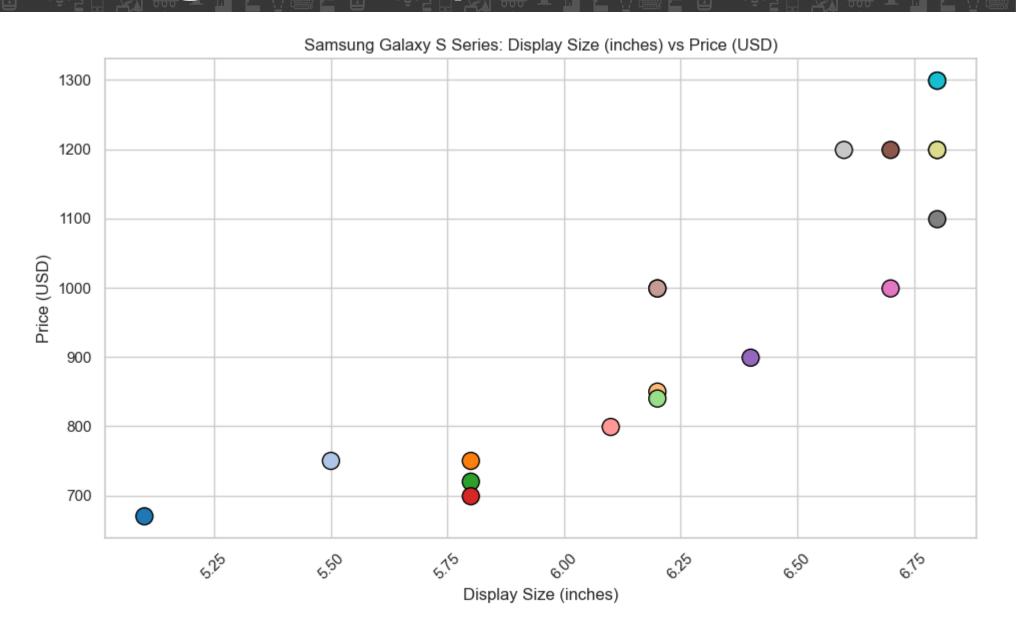


Model	Samsung Galaxy Fold	Samsung Galaxy Z Fold 5	
Launched in	2019	2023	
Key Features	7.3" Foldable Dynamic AMOLED display Triple-camera setup (12 MP + 12 MP + 16 MP) 12 GB RAM, 512 GB storage 4380 mAh battery	7.6" Foldable Dynamic AMOLED 2X display with 120Hz refresh rate Triple-camera setup (50 MP + 12 MP + 10 MP) 12 GB RAM, 256/512 GB storage 4400 mAh battery	
Price	\$ 1,980	\$ 1,799	

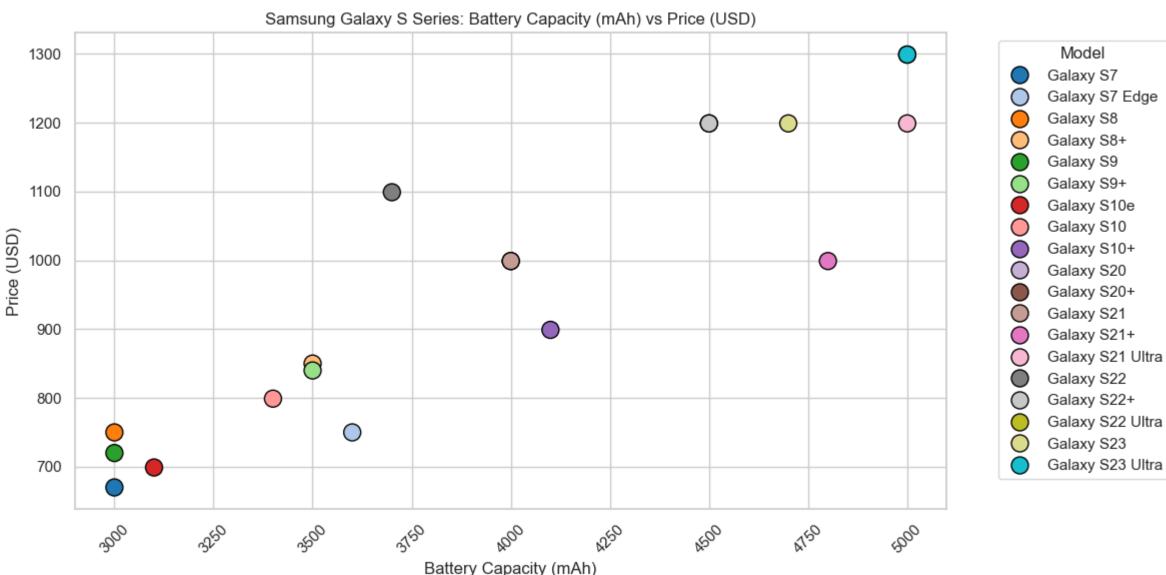




Model Galaxy S7 Galaxy S7 Edge Galaxy S8 Galaxy S8+ Galaxy S9 Galaxy S9+ Galaxy S10e Galaxy S10 Galaxy S10+ Galaxy S20 Galaxy S20+ Galaxy S21 Galaxy S21+ Galaxy S21 Ultra Galaxy S22 Galaxy S22+ Galaxy S22 Ultra Galaxy S23 Galaxy S23 Ultra



Model Galaxy S7 Galaxy S7 Edge Galaxy S8 Galaxy S8+ Galaxy S9 Galaxy S9+ Galaxy S10e Galaxy S10 Galaxy S10+ Galaxy S20 Galaxy S20+ Galaxy S21 Galaxy S21+ Galaxy S21 Ultra Galaxy S22 Galaxy S22+ Galaxy S22 Ultra Galaxy S23 Galaxy S23 Ultra



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Apple Iphone X Launch

