Study notebook · Indian markets edition

Charts, F&O & Fundamentals, doodled.

From a single candle to option strategies on Nifty, Bank Nifty and Sensex, and from a balance sheet to a DCF valuation. Every concept has its own live chart: hover or tap any candle to read its open, high, low, close and indicator values.

Flip the toggles, drag the sliders, build option payoffs, trade a hidden chart candle by candle and play the pattern game. Every correct answer earns **XP**, and you level up from Rookie to Market Wizard.

78 topics · 100+ live charts · 193 quiz questions · Indian markets, F&O & FA · 4 games

Read me first: These notes are for education only and are not investment advice or a recommendation to buy or sell any security. Stock names are used to give the examples Indian context, but the chart data on those teaching charts is **simulated**: neither the candles nor the price levels are actual market prices. Charts built from real historical data (the case files and investing chapters) say so on the chart.

PDF edition. Charts, tables, case files and quizzes are all here. Interactive tools (sliders, simulators, bar replay, pattern game, calculators) appear in their starting state; use the online notebook to play with them. Online version: **https://momentumdeck.in** Quiz answers are in the answer key at the end.



Higher highs, higher lows, price riding above the 9 and 21 EMA. Hover a candle.

Part A

Foundations

What charts are, why they work, and how to read a single candle.

1 What is Technical Analysis?

Reading the footprints buyers and sellers leave on a chart

Technical analysis (TA) is the study of price and volume to judge where the price is more likely to go next. A fundamental analyst asks *"what is HDFC Bank worth?"* A technical analyst asks *"what are buyers and sellers of HDFC Bank doing right now, and who is winning?"*

Assumption 1

Price discounts everything. News, results, rumours and RBI policy all show up in the price.

Assumption 2

Prices move in trends. A trend in motion is more likely to continue than to reverse.

Assumption 3

History rhymes. Fear and greed repeat, so chart patterns repeat.

TA vs FA in one table

	Technical Analysis	Fundamental Analysis
Question	When to buy or sell?	What to buy?
Looks at	Price, volume, patterns, indicators	Earnings, balance sheet, management, valuation
Time frame	Minutes to months	Months to years
Main tool	Charts	Annual reports, ratios (P/E, ROE)
Best combo	Use FA to pick a strong company and TA to pick a good entry and exit.	

Dow Theory: the grandfather of TA

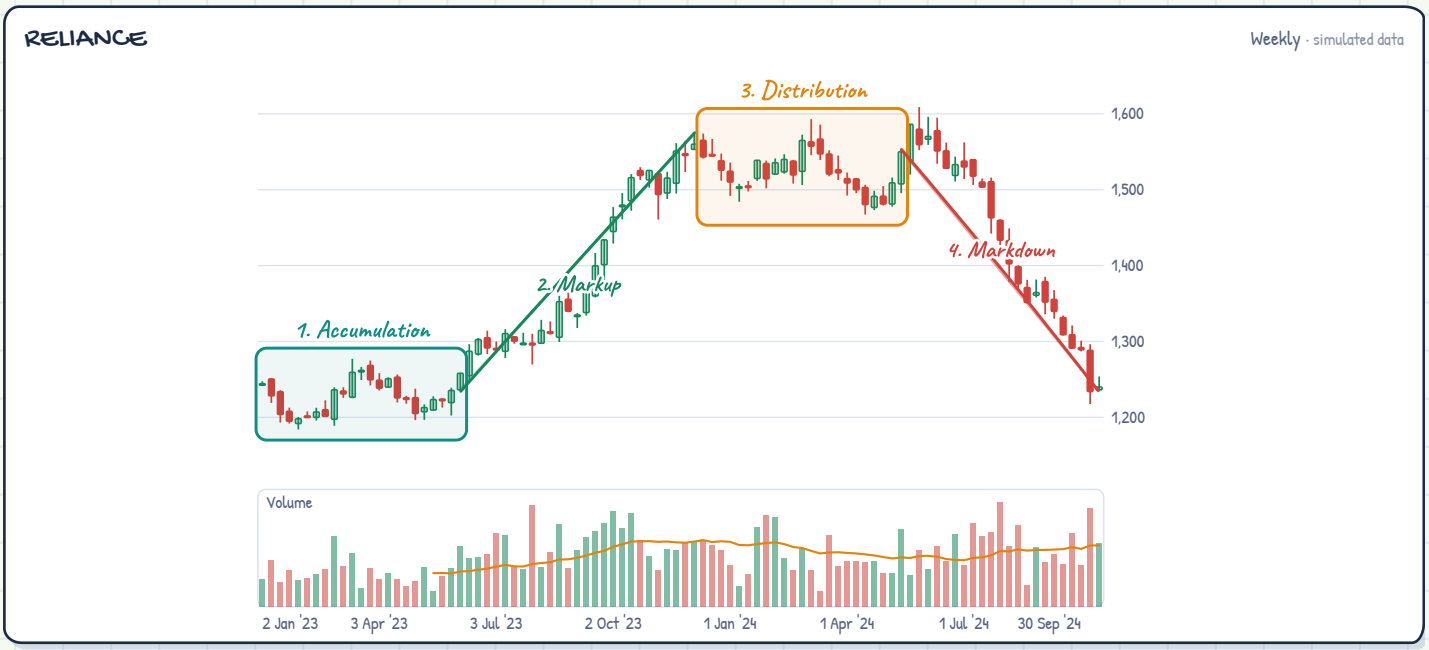
Charles Dow's ideas (late 1800s) still sit underneath almost every modern tool:

1. The market has **three trends**: primary (months to years), secondary (weeks to months, the pullbacks) and minor (days).
2. Primary trends have **three phases**: accumulation, public participation (markup) and distribution.
3. Indices must **confirm each other** (in India: if Nifty makes a new high, Bank Nifty should agree).
4. **Volume must confirm** the trend: rising in the direction of the trend.
5. A trend is in force **until a clear reversal signal** appears.

The market cycle: 4 phases

Toggle each phase on the chart. Smart money buys quietly in **accumulation**, the crowd chases in **markup**, smart money sells to the crowd in **distribution**, and late buyers get trapped in **markdown**.

☑ Accumulation ☑ Markup ☑ Distribution ☑ Markdown



Smart money buys in the range at the bottom and sells in the range at the top.

Remember

TA deals in **probabilities, not certainties.** The aim is not to be right every time. The aim is to make more on winners than you lose on losers (see Topic 26).

Quick check ✎

1. Which statement is one of the three core assumptions of technical analysis?

- A. Price discounts everything
- B. Markets are always efficient so charts are useless
- C. Only company earnings move prices
- D. Volume never matters

2. In Dow Theory, the "distribution" phase is when…

- A. The public starts buying aggressively
- B. Smart money sells its holdings to late buyers near the top
- C. Prices fall sharply
- D. Nobody is trading

3. Nifty makes a new high but Bank Nifty does not. Dow Theory calls this…

- A. Confirmation
- B. Non-confirmation (a warning)
- C. A golden cross
- D. Accumulation

2 Chart Types & Timeframes

Same data, four ways to look at it

Below is the **same** two months of simulated RELIANCE data drawn four different ways. Switch between them and notice what each one hides or shows.

Line | OHLC bar | **Candlestick** | Heikin-Ashi



Heikin-Ashi turns the pullbacks into neat runs of one colour, but its prices are averages.

Line chart

Joins only the closing prices. Clean and great for spotting the big trend, but it hides the high, low and open.

OHLC bar

Vertical line = high to low. Left tick = open, right tick = close. Same information as a candle, harder to read quickly.

Candlestick

Japanese rice traders' invention. The coloured body shows instantly who won the session. **This is what we use in the rest of these notes.**

Heikin-Ashi

"Average bar". Smooths the noise so trends look like long runs of one colour. Its prices are averages, not real prices, so never place orders off them.

Timeframes: pick the one that matches your holding period

Trader type	Holding period	Chart for trend	Chart for entry
Scalper	Seconds to minutes	15 min	1 min / 3 min
Intraday trader	Within 9:15 am to 3:30 pm	1 hour / 75 min	5 min / 15 min
Swing trader	2 days to a few weeks	Weekly	Daily / 1 hour
Positional investor	Months	Monthly	Weekly / daily

Rule of thumb

The higher the timeframe, the more reliable the signal. A hammer on a weekly chart carries far more weight than a hammer on a 3-minute chart.

Quick check ✎

1. Which chart type uses averaged prices and should not be used for placing exact orders?

A. Line

B. OHLC bar

C. Candlestick

D. Heikin-Ashi

2. A swing trader holding for 2–3 weeks should mainly decide the trend from…

A. 1-minute chart

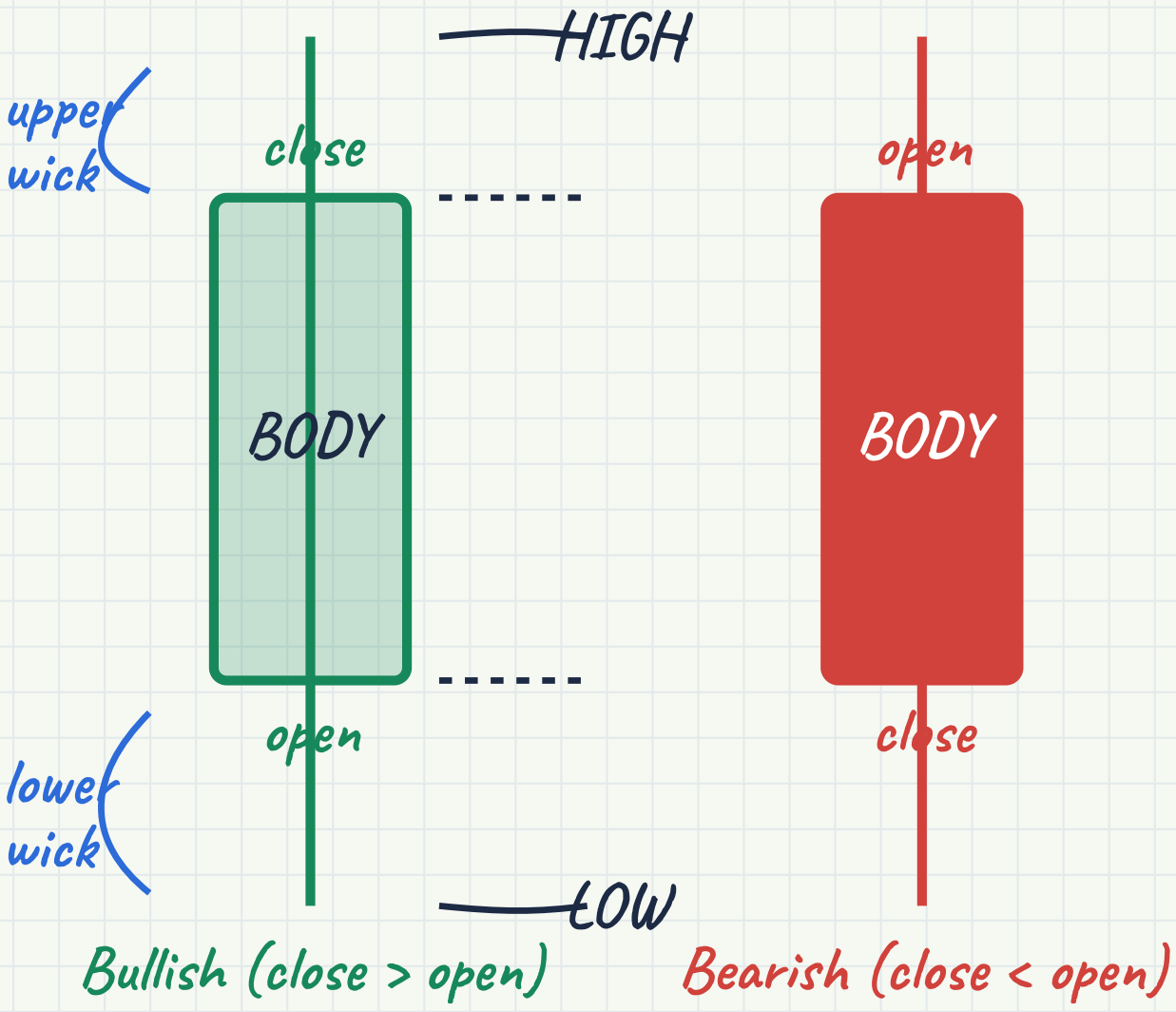
B. 15-minute chart

C. Weekly chart

D. Tick chart

3 Anatomy of a Candlestick

Four prices, one story: open, high, low, close



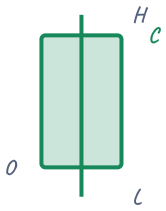
- **Body** = distance between open and close. A big body means strong conviction.
- **Upper wick (shadow)** = buyers pushed up, but sellers pushed back. That is rejection of higher prices.
- **Lower wick** = sellers pushed down, but buyers bought the dip. That is rejection of lower prices.
- **Colour**: green/hollow = closed higher than it opened. Red/filled = closed lower.

Think of it as a tug of war

The body tells you who won. The wicks tell you how hard the loser fought.

Candle builder *play with it!*

Drag the four sliders. The notebook names the candle you build and explains what it says about buyers and sellers.



Open ₹1440

High ₹1492

Low ₹1430

Close ₹1485

Doji | Hammer | Shooting star | Marubozu | Spinning top

Strong bullish candle

Buyers clearly won this session.

Quick check ✎

1. RELIANCE: Open ₹1,400, High ₹1,432, Low ₹1,396, Close ₹1,428. What kind of candle is this?

A. Bearish with a long lower wick

B. Bullish with a big body and small wicks

C. Doji

D. Shooting star

2. A long upper wick tells you that…

A. Buyers won the session easily

B. Higher prices were rejected by sellers

C. Volume was low

D. The stock will gap up tomorrow

Part B

Candlesticks & price-action bars

Every candle pattern that matters, always shown in context.

4 Single-Candle Patterns

One candle, one message, but only at the right place

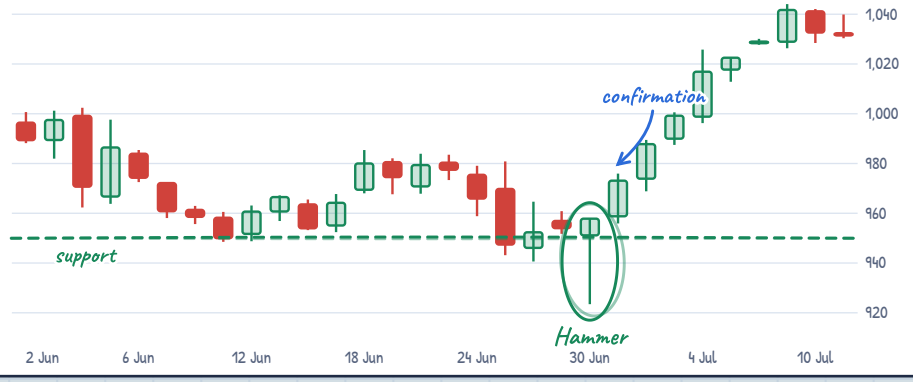
The golden rule of candlesticks

Location beats shape. A hammer in the middle of nowhere means nothing. A hammer at a support level after a fall is a signal. Always ask: *"Where did this candle form?"*

Pick a pattern. Each one is shown in its proper context on a simulated chart of an Indian stock, with the pattern circled.

Hammer | Hanging man | Inverted hammer | Shooting star | Doji | Dragonfly doji | Gravestone doji | Bullish marubozu | Bearish marubozu | Spinning top

HDFCBANK — Daily · simulated data



Hammer

Bullish | Reversal

Looks like	Small body at the top, lower wick at least 2× the body, little or no upper wick.
Psychology	Sellers pushed price to a new low, then buyers stepped in hard and closed it near the high. Selling is being absorbed.
Confirmation	Next candle closes above the hammer's high.
Stop-loss	Below the hammer's low.
Target	Next resistance / previous swing high.
Reliability	★★★★☆

✎ *Here the wick dipped below support and was rejected. That makes it stronger.*

Confirmation, always

Most single-candle signals need the **next candle** to agree. After a hammer, wait for a candle that closes above the hammer's high before buying. Keep your stop just below the hammer's low.

Quick check ✎

1. A hammer appears after a 3-week rally, right at the top. It is better described as...

A. A bullish hammer

B. A hanging man (warning)

C. A marubozu

D. A morning star

2. Where should the stop-loss go for a long trade based on a hammer?

A. Below the hammer's low

B. Above the hammer's high

C. At the hammer's open

D. No stop is needed

3. Which single candle shows the strongest one-sided control?

A. Spinning top

B. Doji

C. Marubozu

D. Inverted hammer

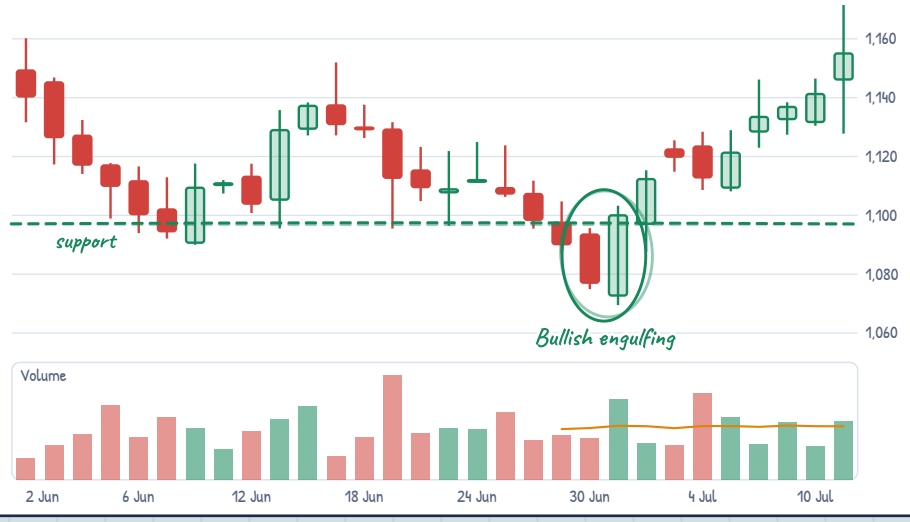
5 Two-Candle Patterns

The second candle overrules the first

Two-candle patterns show a **shift of control**: one side dominates the first candle, the other side takes over in the second. The more completely the second candle "erases" the first, the stronger the signal.

Bullish engulfing | Bearish engulfing | Piercing line | Dark cloud cover | Bullish harami | Bearish harami | Tweezer bottom | Tweezer top

AXISBANK — Daily · simulated data



Bullish engulfing

Bullish | Reversal

Looks like	Small red candle, then a big green candle whose body completely covers the red body.
Psychology	Yesterday sellers were in control. Today buyers opened lower and overpowered every seller from yesterday.
Confirmation	Close above the engulfing high, ideally on higher volume.
Stop-loss	Below the engulfing low.
Target	Previous swing high.
Reliability	★★★★☆

Pattern	Where it must appear	Key test	Bias
Bullish engulfing	After a fall / at support	Green body fully covers previous red body	Bullish
Bearish engulfing	After a rise / at resistance	Red body fully covers previous green body	Bearish
Piercing line	After a fall	Opens below the prior low, closes above the prior body's midpoint	Bullish
Dark cloud cover	After a rise	Opens above the prior high, closes below the prior body's midpoint	Bearish
Bullish / bearish harami	After a trend	Small body sits inside the previous big body (the trend is losing steam)	Reversal warning
Tweezer bottom / top	At support / resistance	Two candles with (almost) the same low / high	Reversal

Quick check ✎

1. For a bullish engulfing, the green candle's body must…

A. Be smaller than the red body

B. Completely cover the previous red body

C. Have a long upper wick

D. Open above the previous high

2. Dark cloud cover: the red candle must close…

A. Above the green candle's high

B. Below the midpoint of the green body

C. Exactly at the green open

D. Above the midpoint of the green body

3. A harami pattern mainly signals…

A. A strong continuation

B. The trend is losing momentum; wait for confirmation

C. An immediate buy

D. A gap

6 Three-Candle Patterns

Slower to form, more reliable

Three-candle patterns tell a complete story: **trend** → **hesitation** → **reversal**. Because they take longer to form, they filter out many false signals.

Morning star | Evening star | Three white soldiers | Three black crows | Three inside up | Three inside down

ICICIBANK — Daily · simulated data



Morning star

Bullish | Reversal

Looks like	Big red candle → small "star" that gaps lower → big green candle closing above the red candle's midpoint.
Psychology	Selling → exhaustion and doubt → buyers take charge.
Confirmation	Third candle itself is the confirmation. Better with rising volume.
Stop-loss	Below the star's low.
Target	Previous swing high.
Reliability	★★★★★

Memory trick

Morning star comes before sunrise, so prices rise. **Evening** star comes before night, so prices fall. The middle "star" is a small candle showing indecision.

Quick check ✎

1. In a morning star, the middle candle shows...

- **A.** Strong selling
- **B.** Indecision
- **C.** Strong buying
- **D.** A gap fill

2. Three black crows after a long rally suggest...

A. Buyers taking over

B. Persistent selling and a possible top

C. A sideways market

D. An ascending triangle

7 Continuation & Power Candle Patterns

Not every pattern is a reversal. Some tell you the trend is about to accelerate.

Reversal patterns get all the attention, but in a strong trend the money is made by **staying in**. These patterns help you spot a healthy pause, or a violent shift that leaves no time to think.

Rising three methods | Falling three methods | Bullish kicker | Bearish kicker | Bullish abandoned baby | Bearish abandoned baby

NTPC — Daily · simulated data



Rising three methods

Bullish | Continuation

Looks like	Big green candle, then three small red candles that stay inside its range, then a big green candle closing above the first one's high.
Psychology	Buyers pause and book a little profit, but sellers cannot even reach the first candle's low. Then buyers return in force.
Confirmation	The fifth candle closing above the first candle's high.
Stop-loss	Below the low of the small candles.
Target	Measured move: size of the first candle, or the next resistance.
Reliability	★★★★☆

Kicker = news candle

A kicker usually comes from a surprise: blow-out results, an order win, a policy change. The gap shows everyone changed their mind overnight. It is one of the strongest candle signals there is.

Three methods = disciplined pause

Three small counter-trend candles that stay inside the big candle's range show profit-booking, not a reversal. The final candle restarts the trend.

Quick check ✎

1. In a rising three methods pattern, the three small middle candles should...

A. Break below the first candle's low

B. Stay inside the first big candle's range

C. Be larger than the first candle

D. Gap above the first candle

2. A bullish kicker is usually caused by...

A. A slow drift higher

B. A surprise (news/results) that flips sentiment overnight

C. Low volume

D. An inside bar

8 Pin Bars, Inside Bars & NR7

The price-action trader's favourite bars

Western price-action traders describe candles by what they **do**, not by Japanese names. Four bars matter most:

Pin bar

A long "nose" (wick) at least 2/3 of the bar, poking through a level and rejected. It is the hammer/shooting-star family, judged by how far it sticks out from the surrounding bars.

Inside bar

A bar whose high and low sit inside the previous bar (the "mother bar"). A pause, a coil. Trade the break of the mother bar.

Outside bar

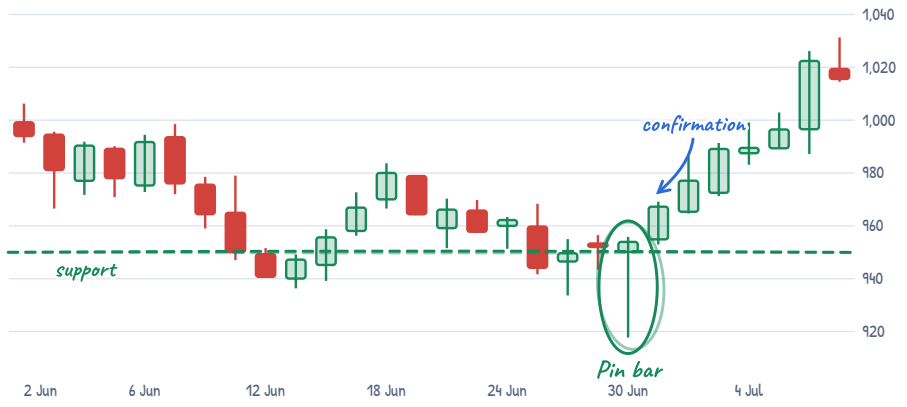
A bar whose range swallows the previous bar's high and low. A sudden expansion that often marks a turn.

NR7

The narrowest range of the last 7 bars. Volatility has dried up. Place orders above the high and below the low: the breakout side wins.

Bullish pin bar | Bearish pin bar | Inside bar breakout | Inside-bar fakey | Outside bar | NR7 breakout

JSWSTEEL — Daily · simulated data



Bullish pin bar

Bullish | Rejection

Looks like	Long lower "nose" (at least 2/3 of the bar), small body near the top, poking below support.
Psychology	Price tested below support, found no sellers and was slammed back up.
Confirmation	Break of the pin bar's high. Some traders enter at a 50% retrace of the nose.
Stop-loss	Below the nose.
Reliability	★★★★☆

Pro tip: the fakey

When an inside bar breaks one way and then quickly reverses back through the mother bar, everyone who traded the first breakout is trapped. Trade the reversal: that is the **inside-bar fakey**.

Quick check ✎

1. An inside bar is a bar whose…

A. High and low are inside the previous bar's range

B. Body is inside its own wicks

C. Close is inside the Bollinger Bands

D. Volume is below average

2. NR7 means…

A. The 7th green candle in a row

B. The narrowest range of the last 7 bars

C. RSI below 7

D. A 7% gap

3. An inside bar breaks down, then price closes back above the mother bar's high. This is…

A. A fakey: trapped sellers fuel the rally

B. A death cross

C. A continuation of the breakdown

D. A doji

78 About This Edition: Sources & Disclaimer

Read this once

Education only

This notebook is for education. It is not investment advice, research or a recommendation to buy, sell or hold any security, fund or strategy. The author is not registered with SEBI as an Investment Adviser or Research Analyst. Securities, funds and ETFs are named only to explain how markets and products work. Past performance does not predict future returns. Trading in futures and options carries a high risk of loss. Consult a SEBI-registered adviser before making investment decisions.

Data cut-off

All market data in this edition ends on **30 September 2026**, in line with SEBI's requirement that educational content use price data at least 30 days old.

Where the data comes from

What	Source
Nifty 50, Nifty Bank, gold, small-cap and foreign-ETF history	Net asset values (NAVs) published by AMFI and the fund houses: UTI Nifty 50 Index Fund, Nippon India ETF Gold BeES and Bank BeES, Motilal Oswal Nifty Smallcap 250 and S&P 500 Index Funds, and the six India-listed foreign ETFs. NAVs include dividends and are net of fund costs, so they differ slightly from index levels.
USD/INR	US Federal Reserve, H.10 release (FRED series DEXINUS)
US and Ireland-listed ETF returns	Issuers' published performance as of 30 Sep 2026 (Vanguard, State Street, Invesco, Schwab, VanEck, iShares)
Quoted prices, index levels and ETF premiums	Press reports (PTI, Reuters, Business Standard, Business Today, INDmoney) and NSE/BSE/SEBI publications
Yes Bank chart	Illustrative path through reported prices, clearly labelled
All other charts	Simulated data, labelled "simulated" on each chart

Trademarks

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Disclaimer: Prepared for classroom learning. Nothing here is investment advice or a recommendation to trade any security. Teaching charts use simulated data with realistic price levels for Indian stocks; they are not actual historical prices. Charts built from real historical data are labelled as such. Trading in equities and derivatives involves risk of loss. Consult a SEBI-registered investment adviser before making investment decisions.

Answer key

1. What is Technical Analysis?

1. **A** (Price discounts everything). TA assumes all known information is already reflected in the price.
2. **B** (Smart money sells its holdings to late buyers near the top). Informed players distribute (sell) to the crowd, usually in a sideways range after a long rise.
3. **B** (Non-confirmation (a warning)). Indices should confirm each other. A divergence between them is a warning sign.

2. Chart Types & Timeframes

1. **D** (Heikin-Ashi). Heikin-Ashi candles are calculated averages, so their open/close are not real traded prices.
2. **C** (Weekly chart). Use a timeframe about 4–6× larger than your entry chart. For swing trades that is the weekly.

3. Anatomy of a Candlestick

1. **B** (Bullish with a big body and small wicks). Close > open (bullish), the body is ₹28 out of a ₹36 range, so wicks are small.
2. **B** (Higher prices were rejected by sellers). Price went up during the session but could not stay there: sellers pushed it back.

4. Single-Candle Patterns

1. **B** (A hanging man (warning)). Same shape, different location. After a rise it is a hanging man.
2. **A** (Below the hammer's low). If price breaks the hammer's low, the buyers who created the long wick have failed.
3. **C** (Marubozu). A marubozu has no wicks: one side controlled the session from open to close.

5. Two-Candle Patterns

1. **B** (Completely cover the previous red body). The green body "engulfs" the entire red body.
2. **B** (Below the midpoint of the green body). Closing below the midpoint shows sellers erased more than half of the prior gain.
3. **B** (The trend is losing momentum; wait for confirmation). The small inside candle shows hesitation. It needs a confirming candle.

6. Three-Candle Patterns

1. **B** (Indecision). The small "star" shows the sellers are losing control before buyers take over.
2. **B** (Persistent selling and a possible top). Three strong red candles, each closing near its low, show sellers in control.

7. Continuation & Power Candle Patterns

1. **B** (Stay inside the first big candle's range). They show mild profit booking that never threatens the first candle's low.
2. **B** (A surprise (news/results) that flips sentiment overnight). The gap above the prior open shows the whole market changed its mind at once.

8. Pin Bars, Inside Bars & NR7

1. **A** (High and low are inside the previous bar's range). It is completely contained by the previous "mother bar".
2. **B** (The narrowest range of the last 7 bars). Volatility contraction that often precedes expansion.
3. **A** (A fakey: trapped sellers fuel the rally). The failed breakdown traps sellers who must buy back.

9. Trend & Market Structure

1. **B** (Higher highs and higher lows). Market structure: HH and HL. Indicators only describe it.
2. **B** (Change of character (first warning of reversal)). Losing the last HL is the first sign the uptrend structure may be breaking.

10. Support & Resistance

1. **B** (Role reversal: old resistance became support). Broken resistance often turns into support on the retest.
2. **B** (A strong candle closing above resistance on 1.5×+ volume). A close (not a wick) plus high volume shows real commitment.
3. **B** (Price reacts to an area; orders are spread around a level). Different traders place orders at slightly different prices around the same level.

11. Supply & Demand Zones

1. **C** (Drop-base-rally). Price based and then rallied: unfilled buy orders may remain in the base.
2. **B** (A fresh zone with a small base and an explosive move away). Fresh zones still hold the unfilled orders; each test uses them up.

12. Trendlines & Channels

1. **B** (Two to draw, the third confirms). Any two points make a line; the third touch proves the market respects it.
2. **B** (Near the lower channel line). Buying near the lower line keeps the stop close and the target (upper line) far.