

GSTechSys-POS — Software Manual

Version 1.0.0 · Point of sale for restaurants, cafés and fast-food shops — in any country · English · العربية
اردو

GSTechSys-POS runs the front counter, tables, kitchen, delivery and back office of a restaurant, café or fast-food shop. It is not tied to one country: tax rates, prices, business details, receipt texts, payment methods and the screen language are set by each shop, so it can be used wherever its requirements are met (see *Using GSTechSys-POS in your country* in section 1). It works on one PC or on several PCs connected through the shop's network, keeps working without the internet, and prints English, Arabic-script (Urdu) text and logos on ordinary 80 mm / 58 mm thermal printers.

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1. What the software does

Area	What you can do
Selling	Fast counter sales (Quick Sale) with barcode scanner; dine-in by table, takeaway and delivery orders; menu items with sizes, extras and deals; discounts with manager approval; hold / recall, split, merge and move tables
Payments	Cash (with change), card, mobile wallet (any local wallet, e.g. JazzCash or Easypaisa), bank transfer, customer credit account, loyalty points; several methods on one bill

Area	What you can do
Printing	Customer receipt with shop logo, kitchen slip on the counter printer, kitchen tickets per station, shift (X / Z) reports; Urdu printed correctly on any ESC/POS printer
Kitchen	Kitchen screen with live tickets, item ticking, Ready and Bump; kitchen printers per station
Delivery	Customer by phone with saved addresses, delivery charges, delivery board, riders and cash settlement
Customers	Customer list, credit limits and account statements, loyalty points
Inventory	Ingredients, recipes (stock deducted on every sale), suppliers, purchases, wastage, stock counts, low-stock list
Expenses	Shop expenses by category, paid from the drawer or elsewhere, with a photo of the bill
Reports	Dashboard and 19 reports (sales, tax, staff, exceptions, shifts, stock, customer dues, profit & loss ...) with Print, PDF, Excel and CSV
Control	Users and roles with permissions, manager PIN approval, audit log of every important action, attendance
Tax	Sales tax / VAT / GST with your own rates, separate cash and card rates where the law has them, prices with or without tax, the business's tax numbers on receipts; prepared for real-time e-invoicing with a tax authority (e.g. FBR / PRA in Pakistan)
Languages	English, Arabic and Urdu screens (Arabic and Urdu right-to-left); menu names in English and a second, right-to-left name (Urdu)
Network	One server PC, any number of counters, kitchen screens and waiter tablets over the shop LAN; no internet needed

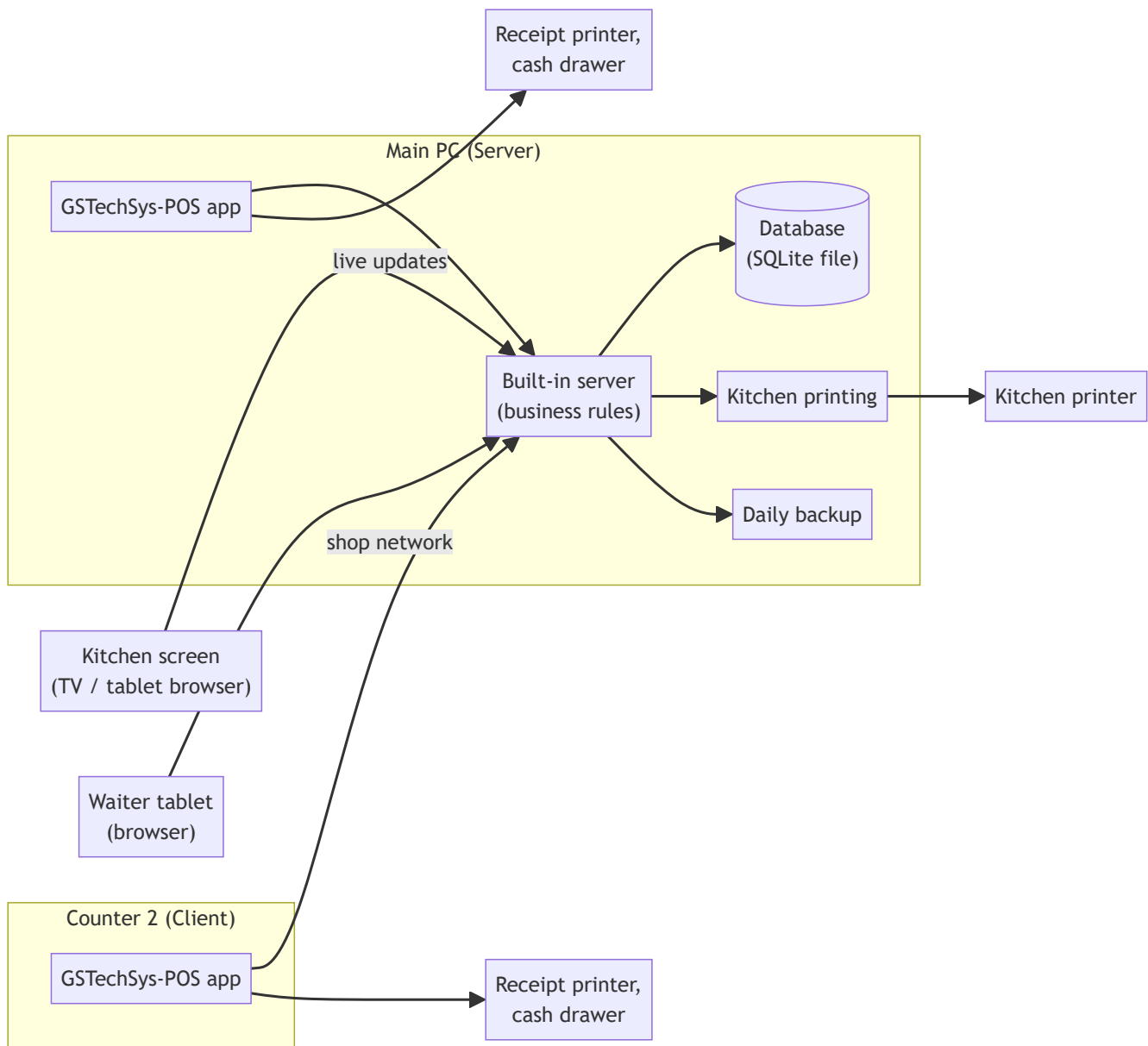
Using GSTechSys-POS in your country

GSTechSys-POS is built for shops anywhere. What each shop sets up for itself:

Item	How it adapts
Tax	Any number of tax categories with your rates (sales tax, VAT, GST ...), a lower rate for card payments if your law has one, prices including or excluding tax (Settings > Tax and General)
Business details	Name, address, phone, e-mail and your tax registration numbers (e.g. NTN / STRN in Pakistan, a VAT or GST number elsewhere) print on every receipt
Receipt texts	Header and footer texts (e.g. your refund policy) and your logo
Prices and charges	Your own prices, service charge, delivery charge and rounding (to 1, 5 or 10 currency units)
Payment methods	Cash, card, mobile wallet, bank transfer, customer account, loyalty points — named in the screen language
Language	English, Arabic or Urdu screens per PC and per user
Time	The server PC's Windows time zone; the business day starts at your cut-off time
E-invoicing	Real-time reporting to a tax authority can be added for your country (prepared in the software; see section 21.7)

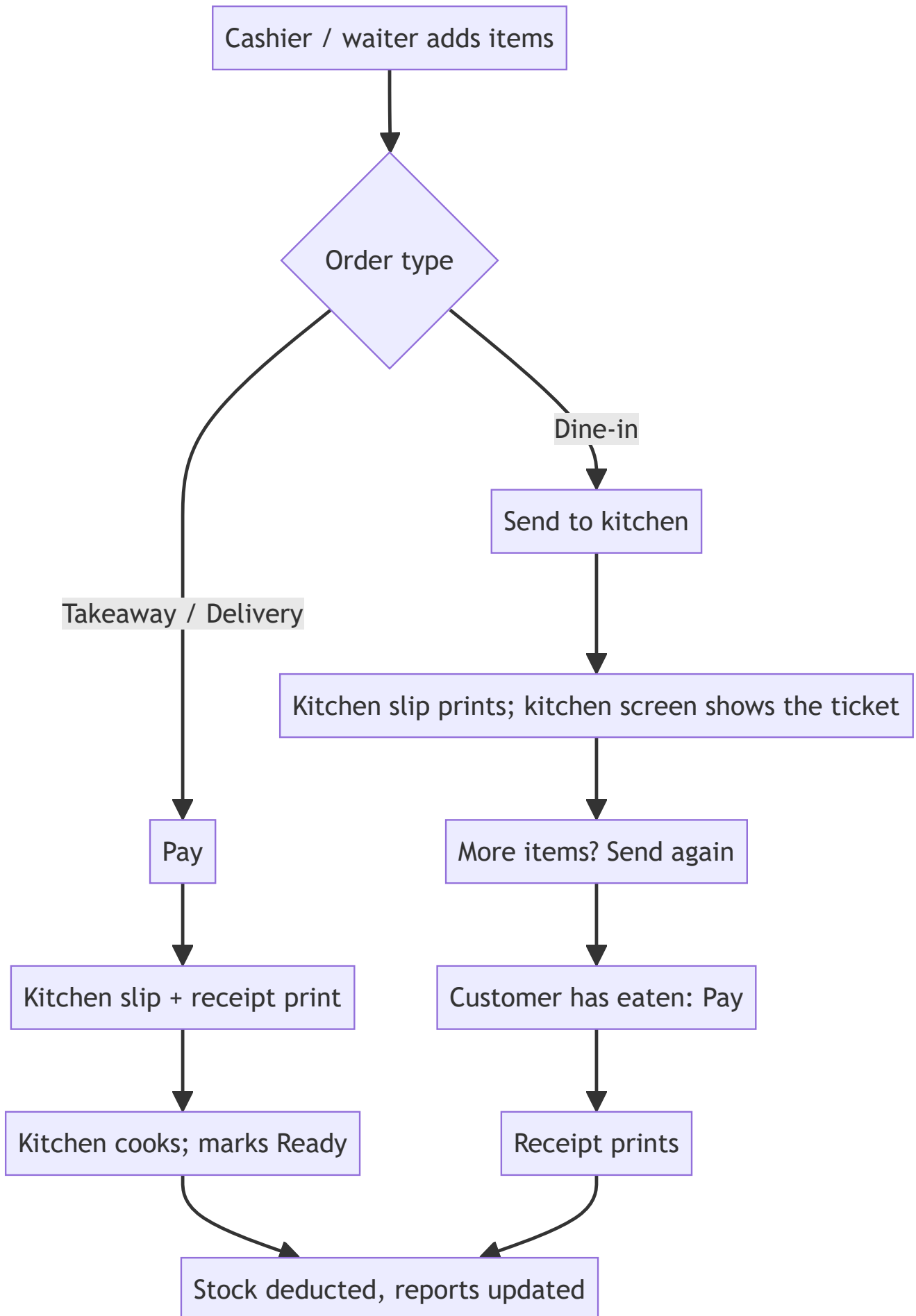
Good to know (version 1.0.0): amounts are shown and printed with the currency label "**Rs**"; customer phone numbers are stored as digits (numbers starting with +92 are converted to the local 03... form). For a different currency label or local adaptations, contact GSTechSys.

2. How it works — the big picture



- **One PC is the Server.** It keeps the database (all menu, orders, payments, stock and settings) and runs the business rules: prices, tax, numbering, stock deduction. It should be on whenever the shop is open.
- **Every other PC is a Client.** It shows the same screens but asks the server for everything, so all counters always see the same menu, tables and orders.
- **Phones, tablets and TVs** can open the software in a web browser (no installation) — useful for waiters and the kitchen screen.
- **Live updates:** when a counter sends an order, the kitchen screen shows it within a second; when the kitchen marks it ready, the counters see "Order ready".
- **Printing:** each counter prints receipts on its own printer; kitchen tickets for kitchen printers are printed by the server.
- **Offline:** everything runs inside the shop. The internet is only needed for optional tax-authority e-invoicing and for sending licence requests.

The life of an order



3. Installing and starting

Requirements

Item	Requirement
Computer	64-bit Windows 10 or 11, 4 GB RAM or more; touch screen optional
Component	Microsoft Edge WebView2 Runtime (already part of Windows 11)
Network	Shop LAN (cable or Wi-Fi) when more than one PC is used
Printer	Any ESC/POS thermal printer, 80 mm or 58 mm (USB, network or serial)
Optional	Cash drawer (RJ11 to the printer), barcode scanner (USB keyboard type), pole display (serial), second monitor for the customer display

Installation

1. Run **GSTechSys-POS-Setup-1.0.0.msi** on every PC and accept the steps (administrator rights are asked once).
2. The installer copies the program, creates the data folder `C:\ProgramData\GSTechSys-POS`, opens the shop-network ports in Windows Firewall (TCP 5080 and UDP 5081, local network only) and adds desktop and Start-menu shortcuts.
3. Start **GSTechSys-POS**.

First start

PC	Choice	What to do
Main counter	Server (port 5080)	Complete the setup wizard (below)
Other counters	Client	Click Find servers , pick the server, Test , Save and start ; or type <code>http://<server-IP>:5080</code>
Kitchen TV / waiter tablet	—	Open a browser at <code>http://<server-IP>:5080</code>
Counter with two screens	tick <i>customer display</i>	The second screen shows the customer's order and totals

Setup wizard (server only): choose the language, enter the business profile (name in English and in Urdu/Arabic script, invoice prefix code, address, phone, and your tax registration numbers — e.g. NTN, STRN and provincial tax number in Pakistan, or your VAT / GST number) and create the administrator (username, password and an optional PIN).

After the wizard:

1. **Settings > Tax** — set the sales-tax / VAT / GST rates that apply in your country or region.
2. **Settings > General** — prices include tax or not, service charge, default delivery charge, discount limit, business-day cut-off time, backup time.
3. **Settings > Business profile** — upload the shop logo (printed on receipts).
4. **Menu** — add categories and items, import them from Excel, or *Load demo menu* to try the software.
5. **Users** — add cashiers, waiters and kitchen staff with PINs.
6. **Settings > Printers** — set up the receipt printer of each counter and the kitchen printers.

To change a PC from client to server (or the server address) later, use the Start-menu shortcut **GS TechSys-POS – change server or client mode**.

4. Users, roles and logging in

Logging in

- **Username + password**, or tap your name and enter your **PIN** (4–6 digits) for a quick login at the counter.
- After 5 wrong passwords the account is locked for 5 minutes; after 5 wrong PINs PIN entry pauses on that counter for a minute.
- New users must change their temporary password at the first login.
- **Clock in / out** from the user menu records attendance (also used in the attendance report).

Built-in roles

Role	Can do
Admin	Everything; cannot be restricted
Manager	Dashboard and reports, menu, floor plan, inventory, customers, expenses, delivery, shifts, all approvals (void, discount above limit, refund, reprint, open drawer), users (view), settings (view), backups, audit log
Cashier	Sell, tables, delivery, mark items sold out
Waiter	Dine-in orders for tables (no payments)
Kitchen	Kitchen screen only

Admins can change the permissions of the built-in roles (except Admin) and create new roles in **Roles**. A user's PIN is set or changed in **Users > Set PIN**.

Manager approval

Some actions need a manager even when a cashier performs them:

Action	Permission needed
Remove (void) an item already sent to the kitchen	Void
Discount above the allowed limit	Discount override
Cancel an order with sent items	Void
Refund	Refund
Reprint a paid receipt (DUPLICATE)	Reprint
Close a shift with a large cash difference	Shift manage
Open the cash drawer without a sale	Open drawer

When a cashier tries one of these, a **Manager approval** window opens; a manager types their PIN and the action continues. The approval is written to the audit log with the manager's name.

5. Shifts and cash

A **shift** is one cashier session at one counter. Payments can only be taken while a shift is open on that counter.

1. **Open shift:** count the cash in the drawer and enter the opening float.
2. **During the shift: Cash in / Cash out** records money added or taken (e.g. paying a supplier) with a reason. Expenses paid from the drawer and rider cash also go into the shift.
3. **X report:** a mid-shift summary (does not close the shift).
4. **Close shift:** count the cash (notes and coins). The screen shows expected cash, counted cash and the difference. A difference larger than the limit needs a manager's PIN and a note. The **Z report** prints.

The **business day** runs from the cut-off time (default 04:00) to the next day's cut-off, so sales after midnight count for the day that started in the evening.

6. Selling: Quick Sale (counter)

Quick Sale is the fast counter screen (cashiers start here). It looks and works like a classic retail POS.

Terminal										Items								
Insert item barcode: [_____]										Search Items [_____] (F2)								
Item Name	Price	Qty	Total	Tax	+	-	x	picture			picture			picture				
Zinger	550	2	1100	1				name			name			name				
Pepsi	120	1	120	1				Code			Code			Code				
Totals (yellow)										R.Price			R.Price			R.Price		
Total • Discount % • Sub Total										Dis %			Dis %			Dis %		
Tax rate • Total Payable • Items																		
[Cash F4] [Sales Credit] [Suspend F8]										[All] [Burgers] [Pizza] [Drinks] ...								

Adding items: scan a barcode anywhere on the screen, type a code in *Insert item barcode* and press Enter, or tap a tile. Items with sizes or extras, and deals, open a choice window.

The grid: Item Name, Price, **Qty** (tap to type), Total, **Tax** (1 = taxed, 0 = not), +, - and **x** (remove). Keys: + / - change the selected line, **Delete** removes it.

Totals panel: Total, **Discount** (type a % and press ✓; above your limit a manager PIN is asked), Sub Total, tax rate and amount, **Total Payable** in red, number of item lines.

Takeaway / Delivery: the switch at the top. **Delivery** first asks for the customer (by phone) and address; a **Delivery charges** box then appears above the totals — type the amount (e.g. 150) and press Enter or ✓.

Buttons: **Cash** (F4) and **Sales Credit** open the payment tab; **Suspend** (F8) parks the sale; **Suspended** brings a parked sale back; **New sale** starts again.

Payment tab

Field	Meaning
Paid Amount	What the customer hands over; keypad or the 10 ... 5000 buttons (each adds), Exact = the full amount
Change / Due	Calculated as you type
Customer	Optional; required when something stays due — the rest goes on the customer's credit account
Pay by	Cash, Card, Mobile wallet, Bank transfer, On account (reference needed for card / wallet / bank)
Comment	A note saved on the order

Complete Sale and Print (Enter) finishes the sale and prints the **kitchen slip and the receipt**; **Only Save** finishes without printing; **Back** (Esc) returns to the items. After the sale the change is shown in large digits and a new sale starts automatically.

7. Selling: Restaurant POS (dine-in, takeaway, delivery)

The **POS** screen is designed for restaurants with tables and a kitchen.

Top bar: order type (**Dine-in, Takeaway, Delivery**), order number, table or customer, shift, **Tables, Orders** (open and held orders), **New order**.

Menu (left): search (F2), code / barcode box, category buttons — **All** (selected first, shows every item) followed by each category — and the item tiles with English and Urdu names and prices.

Cart (right): one compact row per item — name (with the Urdu name and choices underneath), – **qty** + **x** and the amount — so at least 10 items fit. Tap a name to add a note ("no onions") or a line discount. **x** removes a new line at once; on a line already sent to the kitchen it opens the void window (reason, manager approval).

Totals: Subtotal, discount, service charge (dine-in), delivery charge, tax ("incl." when prices include tax), rounding, **Total**, paid and balance.

Action buttons:

Button	What it does
Send (F9)	Sends new items to the kitchen screen and kitchen printers; for dine-in also prints a kitchen slip on the counter printer
Hold (F8)	Parks the order; Orders brings it back
Bill	Prints the unpaid bill for the table
Discount	Discount on the whole bill (% or amount, with a reason)
Split	Moves chosen items to a new bill, or splits equally
Transfer	Moves a dine-in order to another table
Merge	Joins another open order into this one
Cancel	Cancels the order (with sent items: manager approval)
Pay	Opens the payment window

Dine-in: pick the table and number of guests; the bill stays open while the customer eats, more items can be sent at any time, and payment is taken at the end.

Delivery: the customer is found by phone (or added with an address); a **Delivery charges** box above the totals sets the charge for this order.

Tables screen: every table with its state — free (green), occupied (orange), bill printed (blue). Tap a table to open its order.

8. Payments, receipts and refunds

- **Several methods per bill:** e.g. part card, part cash. **Card** tax rate applies only when the whole bill is paid by card (the total is recalculated).
- **Cash:** enter the amount received; the change is shown and recorded.
- **Credit (On account):** allowed up to the customer's credit limit; appears on their account statement.
- **Loyalty points:** when loyalty is switched on and the order has a customer.
- Each payment is protected against double charging (pressing twice or a network retry never charges twice).

What prints

Order type	When	Slips
Takeaway / Delivery	At payment	Kitchen slip → cut → receipt → cut
Dine-in	On Send	Kitchen slip (later rounds: "ADDITIONAL ITEMS")
Dine-in	At payment	Receipt only

The receipt

Shop logo and details (name in English and Urdu, address, phone, e-mail, tax registration numbers, header text); **SALES TAX INVOICE** (or BILL when unpaid); Invoice: ... || EMP: ...; C.name: ... || Ph: ...; date and time; order number and type; the item table **Name | Qty | Price | Total** — each name on one line, **TX** after the quantity when the item is taxed, Urdu name and choices underneath; SubTotal, Discount, sales tax %, service and delivery charges, rounding; **Total**; each payment, Change and Due; *TX: Tax apply; the tax authority's invoice number and QR code when e-invoicing is used; footer text.

Invoice numbers are unique and continuous per year (e.g. KBH-2026-000123), even with several counters.

Reprint and refund

- **Reprint:** *Orders* → the order → *Receipt*. A paid receipt prints a second time as **DUPLICATE** and needs the reprint permission or a manager PIN.
- **Refund:** *Orders* → the order → *Refund*: choose the items and quantities, the reason, the refund method and whether the items go back into stock. A manager PIN is needed. Card / wallet / bank / account refunds cannot exceed what was paid that way; cash refunds need an open shift. Refund numbers look like KBH-R2026-00012.

9. Kitchen: kitchen slip, kitchen tickets and the kitchen screen

Kitchen slip (counter printer)

Printed on the counter's receipt printer and handed to the kitchen: **KITCHEN SLIP**, the **order number** in large print, order type and table, time and staff, every item with **Qty, Price and Total** (Urdu name, choices, notes in bold), item count and amount. Switch it off per counter in **Settings > Printers** when the kitchen has its own printer.

Kitchen tickets (station printers)

Menu items belong to a **kitchen station** (e.g. Kitchen, Grill, Drinks). When items are sent, the server prints a ticket for each station on that station's printer (if set) — big order number, items and notes, no prices.

Kitchen screen

Open **Kitchen display** on a TV, tablet or PC (Kitchen role).

- Choose the **station** (or all stations); dark mode, bigger text and full screen for a kitchen TV.
- Each ticket: order number, type / table, waiter, time since it arrived (**yellow** after the warning time, **red** when late — set in Settings > General), items with choices and notes.
- Tap an item to tick it as done. When all items are ticked — or **Ready** is pressed — the counters and the customer display show "**Order #12 is ready**".
- **Bump** = the food has left the kitchen; the ticket disappears from the screen. **Recall** brings the last bumped ticket back. **Print** reprints the ticket.
- A red ticket means items were voided after sending; tap **OK, seen**.

10. Delivery and riders

1. Take the delivery order on the POS or Quick Sale (customer by phone, address, delivery charge).
2. The **Delivery** board shows orders by status: New → Preparing → Ready → Out for delivery → Delivered.
3. Moving an order to **Out for delivery** asks which **rider** takes it.
4. When the rider returns with the money, **Take payment** opens the order so the cash is recorded in the shift.
5. **Riders** tab: add riders. **Settlement** tab: each rider's deliveries, cash collected and amounts still unpaid.

11. Customers, credit accounts and loyalty

- **Customers:** name, phone (one customer per phone number), e-mail, notes, several delivery addresses, credit limit.
- **Credit account:** credit sales, payments received and refunds form the customer's ledger. **Customer accounts** shows balances; open a customer for the statement (printable) and **Receive payment** (cash goes into the current shift).
- **Loyalty points** (switch on in Settings > General): points earned per amount spent, redeemable as a payment method above a minimum; manual adjustments are logged.

12. Menu management

Screen	Purpose
Items & deals	Items with code, barcode, English and Urdu name, category, picture, price, separate prices for dine-in / takeaway / delivery, cost, tax category, kitchen station, active / available (sold out)
Categories	Name (English / Urdu), colour of the POS button, order
Choice groups	Sizes, extras, spice levels: minimum / maximum choices, price changes, defaults
Deals	Items made of parts ("Choose a drink": Pepsi / 7Up ...) with optional extra prices
Kitchen stations	Where items are prepared and printed
Price rules	Happy hours and day-based prices: % off, amount off or fixed price for chosen items or categories, by time, weekday and order type
Tax categories	Cash rate and card rate (e.g. Standard 16 % / 5 %, Tax exempt 0 %)
Import / Export	Download the menu as Excel or CSV, edit, upload back (checked first, nothing changes if any row is wrong)
Floor plan	Areas (Hall, Roof ...) and tables placed on a grid

Cashiers can mark items **sold out** from the POS; sold-out items are greyed out on every counter.

13. Inventory

- **Ingredients** with a base unit (g, ml, pcs) and a purchase unit (kg, litre, dozen ...), reorder level and average cost.
- **Recipes** link menu items (and their choices) to ingredients. Every sale deducts the ingredients automatically; refunds can put them back.
- **Suppliers** and their account; **Goods receipts** (purchases) add stock and update the average cost; unpaid amounts go to the supplier's account.
- **Adjustments** (wastage, damage, correction) with a reason.
- **Stock counts**: enter the counted quantities; the differences are posted.
- **Stock movements** history and the **Low stock** list.

14. Expenses

Record shop expenses (rent, gas, salaries ...) by category with the date, amount, paid from the drawer or elsewhere, a note and an optional photo / PDF of the bill. Drawer expenses are recorded as cash-out in the open shift. Expenses appear in the expense and profit & loss reports.

15. Reports and dashboard

Dashboard: today's net sales compared with the same weekday last week, orders, average bill, guests, sales by hour, top items, open orders, occupied tables, kitchen tickets waiting, low stock and open shifts — refreshed automatically.

Reports (choose dates or Today / Yesterday / This week / This month / Last month, plus filters such as counter, user, order type and category; then **Print**, **PDF**, **Excel** or **CSV**):

Group	Reports
Sales	Sales summary (by day, order type, payment method, hour) · Sales by item · Sales by category · Sales by cashier / waiter / counter · Item profit · Tax
Control	Exceptions (discounts, voids, cancellations, refunds, approvals) · Shifts and cash differences
Inventory	Stock valuation · Stock movements · Consumption vs recipe · Wastage · Purchases
Accounts	Customer dues (aging) · Supplier payables · Expenses · Profit & loss
Staff	Attendance · Riders

Refunds count on the day of the original sale; the Exceptions report lists them by the day they were made.

16. Settings

Setting	Where
Business profile and shop logo	Settings › Business profile
Default language, prices include tax, service charge %, default delivery charge, discount limit, rounding, business-day cut-off, cash difference limit, kitchen warning / late minutes, loyalty, backup time and copies	Settings › General
Tax categories	Settings › Tax
Counters (terminals)	Settings › Terminals
Receipt printer, kitchen slip, drawer, pole display; kitchen printers	Settings › Printers
Users, PINs and roles	Users, Roles
Import data from an earlier POS database	Settings › Import
Licence	Settings › Licence
Tax-authority e-invoicing status	Settings › Fiscal
Versions and updates	About
Who did what and when	Audit log

17. Printers and other hardware

Device	How to connect	Setting
Receipt printer	USB (installed in Windows), network (IP, port 9100) or serial	Settings > Printers > This terminal: kind, printer, paper 80 / 58 mm, copies, auto print, Test
Kitchen printer	Usually network	Settings > Printers > Kitchen stations: printer, auto print, copies, Test
Cash drawer	RJ11 cable to the receipt printer	<i>Open drawer on cash payment</i> ; Open drawer button on the POS (permission, logged)
Barcode scanner	USB (works like a keyboard)	Nothing to set; scan on Quick Sale or POS
Pole display	Serial (COM port)	Settings > Printers > Pole display
Customer display	Second monitor, or any browser at <code>/display?terminal=<counter></code>	Chosen at first start

Urdu text and the logo are printed as images, so any ESC/POS printer prints them correctly. Each slip ends with an automatic cut. If a kitchen printer fails, all screens show a warning and the ticket can be reprinted.

18. Backups and restore

- An automatic backup is made every day at the backup time (default 23:30) into `C:\ProgramData\GSTechSys-POS\backups`; the last 30 are kept.
- **Backups > Backup now** makes an extra copy at any time.
- Set a second backup folder (USB drive or another PC) in Settings > General — **always keep a copy outside the server PC**.
- **Restore:** Backups > Restore, confirm with your password. A safety copy of the current data is made first; everyone is logged out afterwards.
- Moving to a new server PC: install, choose Server, finish the wizard, copy the latest backup into the new backups folder and restore it.

19. Languages

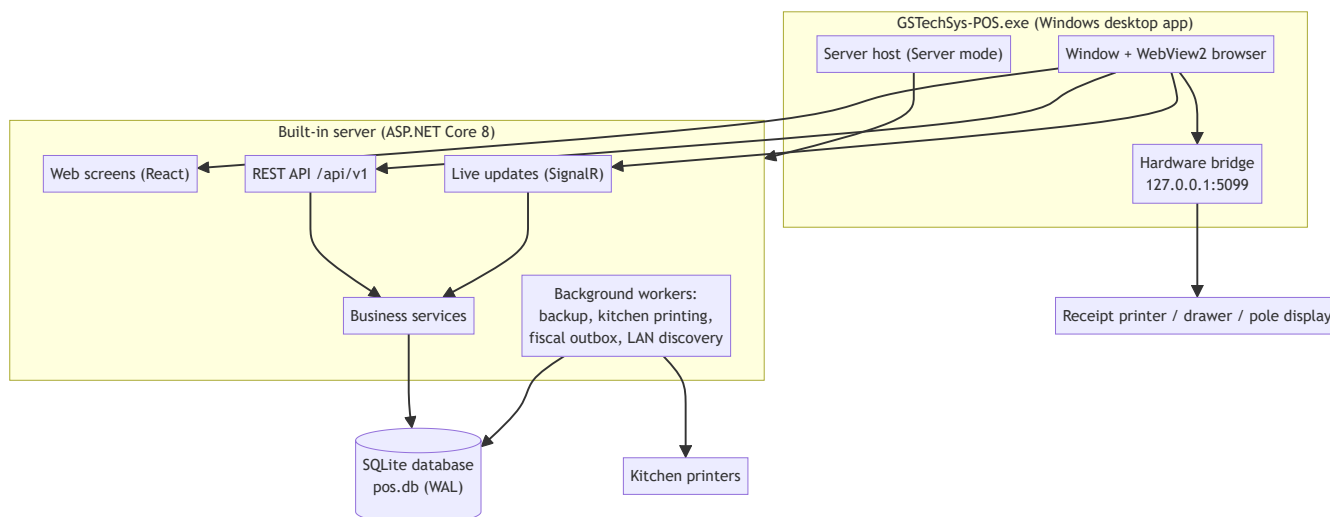
- Screens in **English, Arabic and Urdu** — switch at any time with **EN / العربية / اردو** in the top bar. Each PC remembers its choice; a user's preferred language and the shop default are set in Users and Settings.
- Arabic and Urdu screens are right-to-left.
- Menu items, categories and the business have **English and Urdu names**. The Urdu screen shows the Urdu names; the Arabic screen shows the English names.
- Receipts and kitchen tickets print English with the Urdu names underneath.
- The customer display shows English plus Arabic (Arabic counter) or English plus Urdu.

20. Licence, free trial and updates

- A new installation runs as a **30-day free trial** with all features; a banner shows the days left.
- After 30 days new sales stop until a licence key is entered; reports, menu, settings and backups keep working, so no data is lost.
- **To buy a permanent licence**, contact **GS TechSys**: WhatsApp **+92 332 8228209**, e-mail sales@gstechsys.com, www.gstechsys.com. **Settings > Licence** has buttons that open WhatsApp or e-mail with the business name and the server's **machine id** already written. Paste the key you receive and press **Activate**.
- A licence key belongs to one server PC. When the server PC is replaced, ask GS TechSys for a new key.
- **Updates**: install the new version on the server first. Clients compare their version with the server's and offer to download the installer placed in the server's `updates` folder.

21. Architecture (technical)

21.1 Building blocks



Layer	Technology	Responsibility
Desktop app	.NET 8 WPF + Microsoft Edge WebView2	Window, first-run Server/Client choice, LAN discovery, starts the server in Server mode, local hardware bridge, customer display window, update check
Screens	React 18, TypeScript, Material UI, React Query, i18next	All screens; same in the desktop app and in a browser; English / Arabic / Urdu with right-to-left layout
Server	ASP.NET Core 8	REST API, login tokens (JWT), permission checks, live updates (SignalR), print documents, reports and exports (PDF, Excel, CSV), licence check, background workers
Business logic	.NET class libraries (Domain, Application)	Pricing and tax calculation, orders, payments, refunds, shifts, inventory, customers, delivery, reports
Data	Entity Framework Core 8 + SQLite (WAL mode)	One database file on the server; schema upgrades run automatically at start
Printing	ESC/POS renderer with SkiaSharp + HarfBuzz	Builds printer-independent documents; Urdu shaped and printed as images; Windows, network, serial or file printers

21.2 Modes

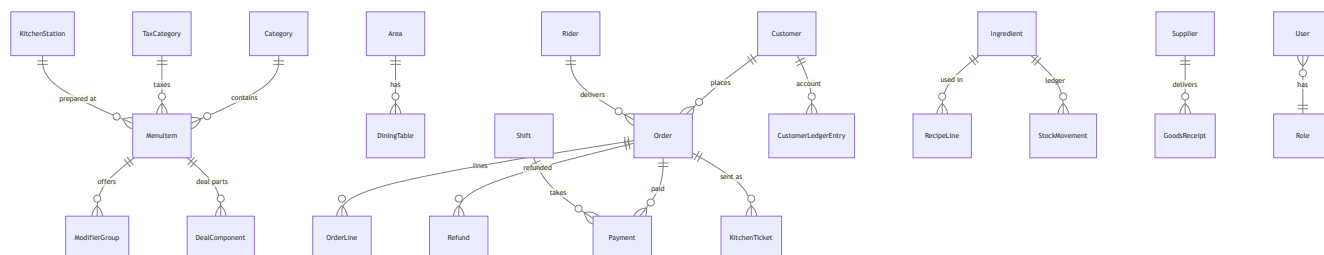
Mode	Runs	Data
Server	Desktop app + built-in server + database	C:\ProgramData\GSTechSys-POS
Client	Desktop app only; talks to the server over the LAN	none locally (only <code>host.json</code> and logs)
Browser	Any browser at <code>http://<server-IP>:5080</code>	none

Only the server opens the database file — clients never share it over a network drive.

21.3 Data folder (server)

Path	Contents
data\pos.db	The database
backups\	Daily and manual backups
logs\	Server, hardware and error logs (send these to support)
media\menu\, branding\, attachments\	Item pictures, shop logo, expense bills
secrets\	Login-token key and trial start date
updates\	Installer offered to client PCs
virtual-printer\	Output of "File" test printers
host.json	This PC's Server / Client choice

21.4 Main data



Names, prices and tax rates are copied onto the order lines when items are added, so later menu changes never alter an existing bill.

21.5 Calculation rules

1. **Price** = the item's price for the order type, then the best active price rule, plus choice and deal extras.
2. **Line discount**, then the **bill discount** shared across lines.
3. **Tax** per line at the cash rate, or the card rate when the whole bill is paid by card. Prices *including* tax: $\text{tax} = \text{amount} \times \text{rate} \div (100 + \text{rate})$; *excluding* tax: $\text{amount} \times \text{rate} \div 100$, added on top.
4. **Service charge** (dine-in, on the amount before tax) and **delivery charge** (delivery orders) — not taxed.
5. **Rounding** of the total to 1, 5 or 10 currency units.

Money is stored in hundredths (cents / paisa), so totals are exact. All calculations happen on the server; the screens only display them.

21.6 Numbering, safety and live updates

- Order numbers (per business day), invoice numbers (per branch and year), refund and purchase numbers come from one counter table updated inside the save transaction — unique and without gaps across all counters.
- A payment, its invoice number, stock deduction and fiscal record are saved together in one transaction: either everything is saved or nothing.
- Live events: settings, menu, floor, order, kitchen and shift changes, "order ready" and printer errors are pushed to every open screen.

21.7 Background work

Worker	Job
Daily backup	Copies the database at the backup time; keeps the configured number of copies
Kitchen printing	Prints new kitchen tickets on station printers; retries and reports failures
Fiscal outbox	When tax-authority e-invoicing is enabled (e.g. FBR / PRA), sends paid invoices in the background with retries
LAN discovery	Answers "Find servers" from client PCs (UDP 5081)

21.8 Network ports

Port	Use
TCP 5080	Server: screens, API, live updates (local network only)
UDP 5081	Server discovery
TCP 5099 (127.0.0.1)	Local hardware bridge of each PC (not reachable from other PCs)

22. Security

- Passwords and PINs are stored only as secure hashes; PINs are unique per user.
- Every request needs a valid login token (12 hours), except setup, login, system and licence information and the customer display.
- Permissions are checked on the server for every request, from the database — blocking a user or changing a role works immediately.
- Manager approvals are verified on the server with the manager's PIN; wrong PINs are throttled.
- Important actions (logins, approvals, discounts, voids, refunds, reprints, drawer openings, settings and menu changes, restores) are written to the **audit log**.
- Uploaded pictures are checked and re-encoded; file printers can only write inside their own folder.
- The hardware bridge listens only on the PC itself and requires a secret token.
- Licence keys are digitally signed by GSTechSys and cannot be created from the installed files.

23. Troubleshooting

Problem	What to do
"Server not reachable" (red banner)	Check the server PC is on and the app is running there; check the network cable / Wi-Fi; on the server, the firewall must allow TCP 5080
<i>Find servers</i> finds nothing	Same network? Type <code>http://<server-IP>:5080</code> instead; give the server a fixed IP address in the router
Receipt does not print	Settings > Printers > Test; printer on, paper loaded, right printer selected
Kitchen printer warning	Check paper and power, then reprint the ticket from the kitchen screen
"No shift is open"	Open a shift on this counter
Manager approval refused	The PIN must belong to an active user whose role has the permission
"Free trial has ended"	Contact GSTechSys (WhatsApp +92 332 8228209, sales@gstechsys.com) with the machine id from Settings > Licence
Wrong cash at closing	Recount; record missing Cash in / out; a manager approves the difference
Anything else	Send the files from <code>C:\ProgramData\GSTechSys-POS\logs</code> to support

24. Glossary

Term	Meaning
Bump	Remove a finished ticket from the kitchen screen (the food has left the kitchen)
Business day	The trading day, from the cut-off time (e.g. 04:00) to the next cut-off
Client	A PC that uses the server's data over the network
Deal	A menu item made of several parts with choices (a combo)
Duplicate	A second print of a paid receipt
Hold / Suspend	Park an unfinished order to continue later
Kitchen slip	Slip with the order number and items (with prices) printed on the counter printer for the kitchen
Kitchen ticket	Ticket printed on a kitchen station printer (no prices)
Machine id	Code identifying the server PC, needed for a licence key
Server	The main PC that keeps the database
Shift	One cashier session at one counter, from opening float to closing count
TX	Mark on the receipt for an item with sales tax
Void	Remove an item already sent to the kitchen (reason and approval needed)
X / Z report	Shift summary without / with closing the shift