

Payment Link Generator — UNext

A production-ready, full-stack internal tool for UNext (SMU) fee collection

Powered by Juspay · React + Node.js + PostgreSQL · Role-based access · Real-time webhooks

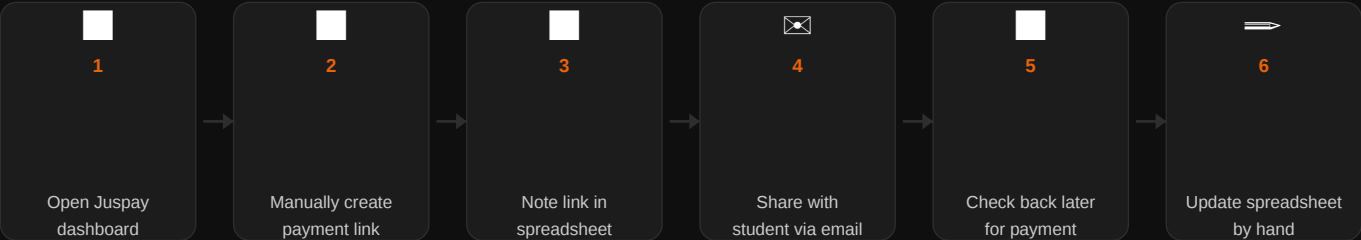
BUILT FOR	GATEWAY	AUTHOR	ROLE
UNext (SMU) · EdTech	Juspay (Live)	Kshitiz Raj Srivastava	Product Manager

100%	INR + USD	15	4	0
Webhook sync	Multi-currency	Table columns	Log types	Manual steps

THE PROBLEM

How UNext collected fees before this tool

Manual. Fragmented. No audit trail.



✗

No unified view

Staff had no single place to see which links existed, who created them, or which had been paid.

✗

Zero automation

Every payment required manual checking in Juspay and a corresponding spreadsheet update.

✗

No audit trail

No record of who generated which link, when, or what Juspay returned at the time of creation.

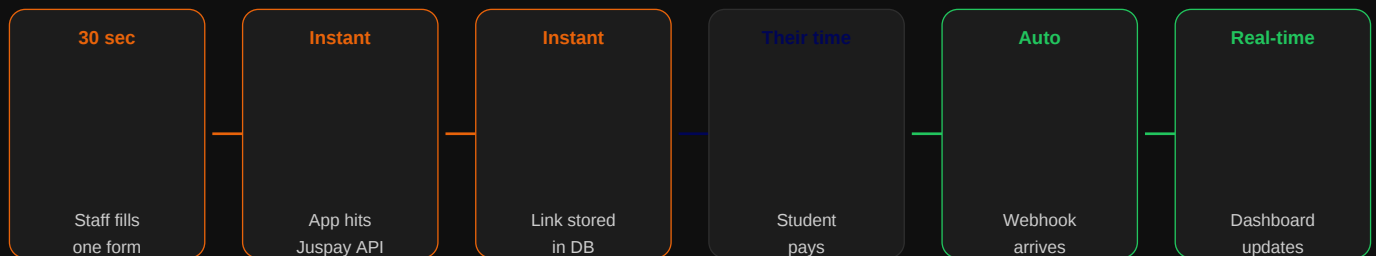
✗

Multi-currency chaos

INR and USD links required different gateway configs — handled entirely by memory, not logic.

THE SOLUTION

One tool. Full lifecycle. Zero manual steps.



KEY PM DECISIONS

PostgreSQL over lightweight DB

Webhook idempotency requires concurrent write safety — flat files cause race conditions when two events hit simultaneously.

Consecutive semester validation

Annual/Full Course fees map to contiguous academic periods. Non-consecutive selection creates invalid fee structures in SLCM.

Role-based auth replacing URL tokens

URL tokens are shareable and unrevokable. JWT + roles gives real access control and per-permission granularity.

Build around existing Juspay contract

UNext already had a live merchant account. Zero procurement overhead by wrapping what exists rather than onboarding a new gateway.

JWT login with 5-permission role system

JWT Auth

Email + password login. Tokens stored in localStorage, sent as Bearer on every API request.

Auto-refresh

Sessions persist across refreshes. Permissions re-check every 90 seconds — no logout needed.

Forgot Password

Self-service reset flow with complexity enforcement: upper, lower, number, symbol.

Admin Reset

Admins can reset any user's password directly from the User Management panel.

TWO ROLES

ADMIN

Full access — no restrictions

- ✓ View Data
- ✓ Create Links
- ✓ View Logs
- ✓ Export CSV
- ✓ Manage Columns
- ✓ User Management

REGULAR USER

5 independent permission toggles — set by Admin

- View Data
- Create Links
- View Logs
- Export CSV
- Manage Columns

■ Permission changes take effect within 90 seconds for active users — no logout or re-login required.

Real-time metrics & Admin

Total Links Generated

Count of all payment links ever created across all users

Unique Customers

Distinct student roll numbers across all orders

Successful Payments

Orders with CHARGED status from Juspay webhook

Other Statuses

Pending, Created, Failed — all non-CHARGED orders

Per-user Breakdown

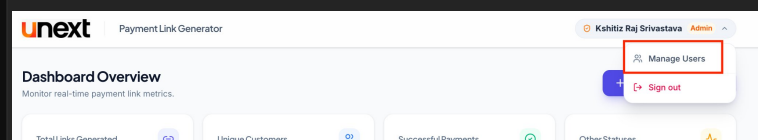
How many links each staff member has generated

30s Auto-refresh

Dashboard stays live without manual intervention

Admin Dropdown

Access User Management and Sign Out from top-right



USER MANAGEMENT

Add, edit, and permission-control every user

User Management

4 users · Admin only

Admin View

Name	Email	Role	Permissions	Created At	Actions
Ujjwal Singh	ujjwal.singh@u-next.com	Admin	View Orders	23 Mar 2024	View Edit Delete
Pallavi Kulkarni	pallavi.kulkarni@u-next.com	Admin	View Orders	23 Mar 2024	View Edit Delete
Ashwini Kulkarni	ashwini.kulkarni@u-next.com	Admin	View Orders	23 Mar 2024	View Edit Delete
Kshitiz Raj Srivastava	kshitiz.srivastava@u-next.com	Admin	View Orders	23 Mar 2024	View Edit Delete

User Management Panel

4 users · Role + permission chips visible at a glance

Edit — Kshitiz Raj Srivastava

Full Name *

Kshitiz Raj Srivastava

Email *

kshitiz.srivastava@u-next.com

New Password (leave blank to keep)

Leave blank to keep current

Role

Admin

Permissions

View Data

View orders table and metrics

Create Payment Links

Submit new payment link requests

View API Logs

Access system logs section

Export CSV

Download orders as CSV

Manage Columns

Show/hide table columns

Cancel

Save

Edit User & Permissions

5 toggle switches per user — live within 90s

Create New User

Full Name *

Jane Doe

Email *

jane@u-next.com

Password *

Min 8 chars, upper/lower/number/symbol

Role

Regular

Permissions

View Data

View orders table and metrics

Create Payment Links

Submit new payment link requests

View API Logs

Access system logs section

Export CSV

Download orders as CSV

Manage Columns

Show/hide table columns

Cancel

Save

Create New User

Name, email, password, role, default permissions

- Create User

Add with name, email, password, role
- Edit User

Change name, role, password anytime
- Delete User

Remove permanently (self-protection enforced)
- Set Permissions

5 toggles per regular user via modal
- 90s Effect

No logout needed for permission changes
- Safety Rules

Admins cannot delete/demote themselves

CREATE PAYMENT LINK

Smart form with Juspay API mapping baked in

CUSTOMER FIELDS

Roll Number	Unique student identifier
Customer Name	Full name
Customer Email	Juspay sends payment link via email
Country Code	Phone prefix — full libphonenumber-js list
Customer Phone	Juspay sends link via SMS

PAYMENT FIELDS

Program	MBA, MCA, BA, MA Eng/Soc/PolSci, BCom, MCom
Fee Type	Semester / Annual / Full Course
Semesters	S2–S6 · Rules enforced by fee type (see right)
Amount	Numeric · INR or USD
Currency	INR → gateway RD USD → gateway RI
Expiry Date	Auto-converted to expiryInMins for Juspay

PAYMENT OPTIONS

☒ Enable Loan
NBFC Consumer Finance at checkout
→ MBA/MCA (Semester) + all programs (Annual)
☒ No-Cost EMI
3-month and 6-month CARD tenures
→ Semester fee type only

SEMESTER SELECTION RULES

Semester **Single Select**

Exactly 1 semester

S2

S3

S4

S5

S6

Annual **Consecutive Dual**

Exactly 2 consecutive

S2

S3

S4

S5

S6

Full Course **Consecutive Multi**

Any consecutive range

S2

S3

S4

S5

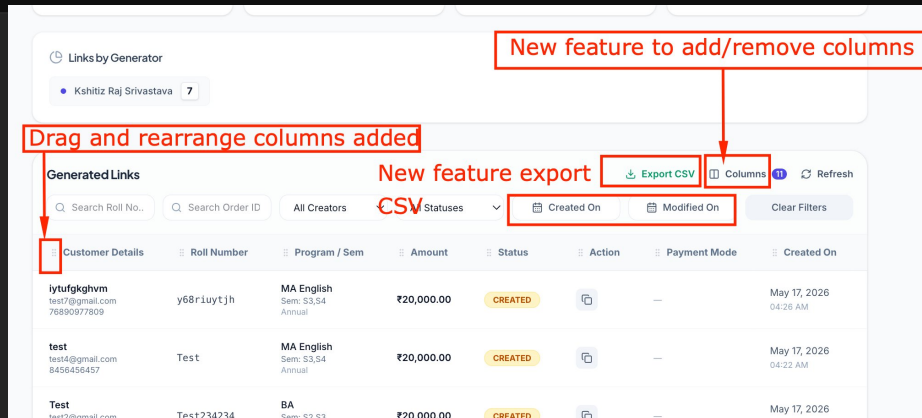
S6

ON SUBMISSION

1. USER_SUBMISSION log saved
2. Juspay /session API called
3. JUSPAY_API log saved
4. Order stored → status CREATED
5. Link URL copied to clipboard
6. Table auto-refreshes

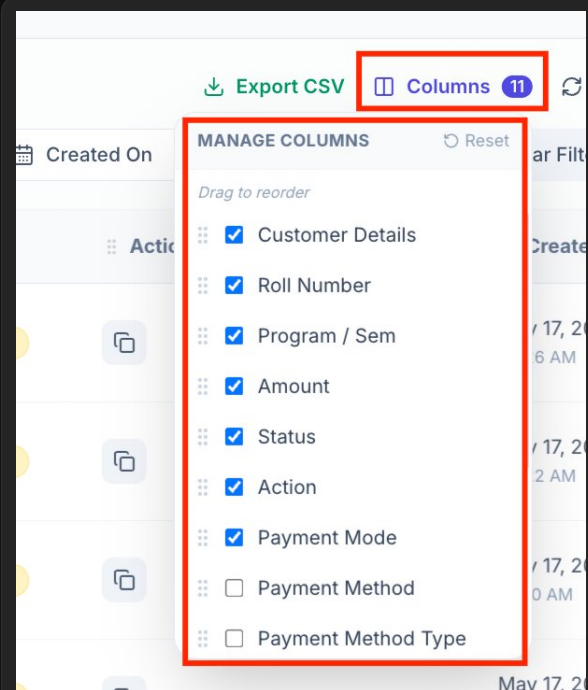
ORDERS TABLE

15 columns · 6 filters · CSV export · Drag-to-reorder



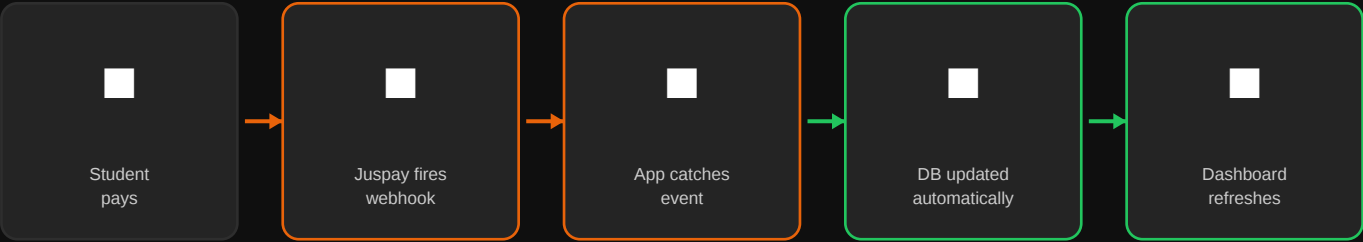
15 TABLE COLUMNS

- ✓ **Customer Details** Name, email, phone
- ✓ **Roll Number** Student ID
- ✓ **Program / Sem** Program + fee type + semesters
- ✓ **Amount** Formatted INR/USD
- ✓ **Status** Colour-coded badge
- ✓ **Action** One-click copy payment link
- ✓ **Payment Mode** Online / Loan / No-Cost EMI
- ✓ **Created On / Modified On** With timezone
- ✓ **Order ID + Payment ID** Juspay references
- **Payment Method / Type** Hidden by default
- **EMI Type / Tenure** Hidden by default



WEBHOOKS & PAYMENT DATA

Real-time status sync — zero manual reconciliation



FIELDS EXTRACTED FROM EACH WEBHOOK

Payment Method <code>order.payment_method</code> e.g. UPI, VISA, HDFC	Payment Method Type <code>order.payment_method_type</code> e.g. UPI, CARD, CONSUMER_FINANCE
EMI Type <code>order.emi_details.emi_type</code> e.g. NO_COST_EMI	EMI Tenure <code>order.emi_details.emi_tenure</code> e.g. 3, 6 months
Payment ID <code>payment_gateway_response.epg_txn_id</code> Stored in dashboard Payment ID column	Modified On Actual Juspay payment time Not server receipt time — accurate audit trail

PAYMENT MODE COMPUTATION

CARD + NO_COST_EMI → No-Cost EMI	CONSUMER_FINANCE → Loan	CARD / UPI / NB / WALLET → Online
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SYSTEM LOGS

Full audit trail across 4 log categories

USER_SUBMISSION

Every form submit

Raw data entered by staff — amount, program, semesters, customer info, fee type, currency. Saved before API call.

JUSPAY_API

Every API call

Full request payload sent to Juspay /session + full response (or error). Includes expiry, gateway ref, UDF fields, payment filters.

WEBHOOK

Every status change

Raw incoming webhook from Juspay — order status updates, payment completions, failures. Full JSON preserved for debugging.

SLCM_API

SLCM integration

Logs from SLCM (Student Lifecycle Management) integration calls. Useful for reconciliation and downstream system debugging.

SAMPLE LOG ENTRY

```
Mar 25, 2026 15:51:21
USER_SUBMISSION
{
  "amount": "10000",   "feeType": "Annual",   "program": "MBA",
  "currency": "INR",   "semesters": ["S3", "S4"],   "rollNumber": "2345111",
  "customerName": "Test Student",   "createdBy": "Kshitiz Raj Srivastava"
}
```

■ System Logs accessible to: Admin (always) · Regular users with "View Logs" permission

TECH STACK & JUSPAY INTEGRATION

Production deployment · Live API · Real webhooks

FRONTEND

React + Vite

Responsive SPA · Mobile-first · 30s auto-refresh · Role-aware views

BACKEND

Node.js + Express

REST API · Juspay session endpoint · Webhook receiver · JWT auth middleware

DATABASE

PostgreSQL

Orders + logs storage · Concurrent write safety · Idempotent webhook updates

GATEWAY

Juspay API

Live merchant: smu · POST /session · Gateway ref INR=RD, USD=RI · expiryInMins

UTILITY

libphonenumber-js

Full international country code list for phone field — 200+ countries

DEPLOYMENT

Replit

Production deployment · Auto webhook URL construction from public domain

JUSPAY CONFIGURATION

Merchant ID	smu	Base URL	https://api.juspay.in
Session Endpoint	POST /session	INR Gateway Ref	Semester-RD
USD Gateway Ref	Semester-RI	Email Notify	send_mail: true
SMS Notify	send_sms: true	Standard EMI	Disabled via payment filters

Zero manual reconciliation. Real production impact.

Before

- ✗ Staff manually checked Juspay dashboard
- ✗ Updated spreadsheets by hand after each payment
- ✗ No audit trail — who created which link?
- ✗ Multi-currency routing done from memory
- ✗ No visibility into link expiry or status

After

- ✓ One form → Juspay API → link in 30 seconds
- ✓ Webhooks auto-update order status in real time
- ✓ Full audit log: submission, API, webhook, SLCM
- ✓ INR/USD routing automatic via currency selection
- ✓ Dashboard shows live status for every order

"The key PM skill wasn't just knowing what to build — it was knowing what not to build."

— Kshitiz Raj Srivastava

BOOK A DEMO

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