

This document consolidates **all epics and user stories** covering every planned feature (Sections 1–6), written in the **same format as the shared Word file**.

EPIC 1: ORGANIZATION & AUTHENTICATION

ID	User Story	Task Set (Plan & Design)	Validation Criteria (Testing)	Constraints
1.1	As a Platform Admin, I want to register a new organization so it can be onboarded as a client.	Org registration form, DB schema, POST / admin/organizations	Org saved, mandatory fields validated	Org name unique
1.2	As a Platform Admin, I want to link email domains to an organization so verification is automated.	Domain UI, FK mapping, regex validation	Valid domains accepted	Valid TLDs only
1.3	As a Platform Admin, I want to approve an organization so employees can sign up.	Status toggle, PATCH API	Pending orgs block signup	Admin-only
1.4	As a system, I want to auto-disable inactive accounts to reduce security risk.	Cron job, warning email, last_login field	Disabled user cannot login	Default 90 days
1.5	As an Org Admin, I want role-based dashboard access to manage my company.	RBAC, redirects	Cross-org access blocked	Org-scoped
1.6	As an Org Admin, I want to manually verify employees.	Approval queue, email alerts	Status updated correctly	Reason mandatory
1.7	As an employee, I want to sign up using my corporate email.	Signup UI, domain check	Non-corp emails rejected	Must contain @
1.8	As an employee, I want instant domain validation feedback.	Real-time lookup API	Response <200ms	Domain must exist
1.9	As an employee, I want to verify my email via OTP.	OTP generation, email service	OTP expiry enforced	10 min validity
1.10	As a user, I want to set a strong password.	Bcrypt hashing, strength meter	Encrypted in DB	No plaintext
1.11	As a user, I want to complete my profile.	Profile wizard, image upload	Fields saved	Photo <5MB
1.12	As a user, I want to log in securely.	JWT auth, rate limiting	Token expiry enforced	24h expiry

ID	User Story	Task Set (Plan & Design)	Validation Criteria (Testing)	Constraints
1.13	As a user, I want to reset my password.	Reset token, email flow	One-time use	HTTPS only
1.14	As an Org Admin, I want to instantly remove an employee's access.	Remove user API, session invalidation	User logged out immediately	Irreversible
1.15	As a user, I want to log out securely.	Token blacklist, cache clear	Back navigation blocked	Clears local cache
1.16	As a driver, I want to upload my driving documents so I can offer rides.	Document upload UI, storage	Upload succeeds	Mandatory docs
1.17	As an Admin, I want to verify driver documents for safety.	Admin verification UI	Unverified drivers blocked	Manual approval

EPIC 2: RIDE CREATION & MATCHING

ID	User Story	Task Set	Validation Criteria	Constraints
2.1	As a driver, I want to log a planned trip.	Trip scheduler, map UI	Trip saved	Max 7 days ahead
2.2	As a driver, I want to select vehicle type and seats.	Toggle UI, seat logic	Seat count updates	Car ≤7, Bike=1
2.3	As a passenger, I want to search rides along my route.	Proximity search	Correct results	Radius ≤5km
2.4	As a passenger, I want to filter by vehicle type.	Filter chips	Filter applied	At least one selected
2.5	As a passenger, I want to see estimated cost.	Distance-based calculator	Accurate rounding	Corporate rates
2.6	As a passenger, I want to request a ride.	Request API, confirmation	Pending status	One active request
2.7	As a driver, I want to approve/reject passengers.	Notification tray	Seat decremented	Decision ≤10 min
2.8	As a driver, I want live traffic visibility.	Map traffic layer	Refresh stable	API limits
2.9	As a driver, I want optimized multi-stop routes.	Waypoint algorithm	Shortest path	Max 4 stops
2.10	As a driver, I want smart pickup zones.	Map overlays	Org zones only	Campus-only

ID	User Story	Task Set	Validation Criteria	Constraints
2.11	As a passenger, I want real-time driver tracking.	WebSockets	Latency <2s	GPS ±10m
2.12	As a passenger, I want accurate ETA.	ETA logic	Sync with maps	Refresh 60s
2.13	As a driver, I want to start/end trips.	Status updates	Final cost logged	Non-reversible
2.14	As a user, I want a trip summary.	Receipt generation	Matches distance	Stored 12 months
2.15	As a user, I want to cancel trips.	Cancel flow	Seats restored	No cancel after start

EPIC 3: SUSTAINABILITY SCORING

ID	User Story	Task Set	Validation Criteria	Constraints
3.1	As a system, I want to calculate CO2 saved per trip.	Carbon engine	Math verified	2025 EPA
3.2	As a driver, I want to input fuel type.	Fuel dropdown	Persists	6 types max
3.3	As a user, I want to see lifetime impact.	Aggregation UI	Loads <2s	Accurate totals
3.4	As a user, I want per-trip impact feedback.	Post-trip modal	Correct value	One-tap close
3.5	As a user, I want tree-equivalent visuals.	Conversion logic	Clear methodology	2025 rates
3.6	As a user, I want carpool vs solo comparison.	Baseline logic	Clear savings	Mobile readable
3.7	As an Org Admin, I want ESG summaries.	Org dashboard	Org-scoped	Admin only
3.8	As an Admin, I want ESG export reports.	CSV/PDF engine	Download works	≤1 year
3.9	As a user, I want top commute partner stats.	Pair tracking	Updates correctly	Named partners
3.10	As a user, I want a route efficiency score.	Deviation logic	Consistent scoring	1-5 leaves
3.11	As a developer, I want anonymized analytics.	Scrubbing scripts	No PII	GDPR/CCPA

ID	User Story	Task Set	Validation Criteria	Constraints
3.12	As a user, I want idle-time impact metrics.	Idle detection	Fuel-aware	Labeled clearly
3.13	As a driver, I want maintenance savings insights.	Wear algorithm	Updates per trip	2025 data
3.14	As a user, I want fuel cost savings.	Fuel price logic	Accurate savings	Local averages
3.15	As a Platform Admin, I want global impact stats.	Global aggregation	Accurate sums	Super-admin

EPIC 4: GAMIFICATION & REWARDS

ID	User Story	Task Set	Validation Criteria	Constraints
4.1	As a user, I want to earn points for rides.	Points logic	Credited post-trip	Daily cap
4.2	As a user, I want to view my points balance.	Balance widget	Sync <2s	High reads
4.3	As a user, I want a points breakdown.	History UI	Totals match	Archive >12m
4.4	As an Org Admin, I want tier definitions.	Tier config UI	No overlap	3-10 tiers
4.5	As a user, I want tier progress tracking.	Progress bar	100% accuracy	Org-specific
4.6	As a user, I want tier-up notifications.	Push events	Instant trigger	Permissions
4.7	As a user, I want leaderboards.	Ranking query	Org-only users	Hourly update
4.8	As a user, I want dept-wise leaderboards.	Dept filter	Correct switch	Dept required
4.9	As a user, I want a rewards catalog.	Store UI	Costs visible	Images <200kb
4.10	As a user, I want to redeem rewards.	Atomic transaction	No negative balance	Irreversible
4.11	As an Org Admin, I want to manage rewards.	CRUD dashboard	Instant reflect	Admin-only
4.12	As an Org Admin, I want to approve redemptions.	Approval queue	Refund on reject	Audited

ID	User Story	Task Set	Validation Criteria	Constraints
4.13	As a user, I want to opt out of gamification.	Privacy toggle	Hidden from ranks	Points private
4.14	As a Platform Admin, I want global point rules.	Config dashboard	Future-only apply	Super-admin
4.15	As a user, I want my rewards history.	History view	Status accurate	Read-only

EPIC 5: PRIVACY, SAFETY & FEEDBACK

ID	User Story	Task Set	Validation Criteria	Constraints
5.1	As a user, I want to see my average rating.	Mean calculation	Shows correctly	≥3 ratings
5.2	As a passenger, I want to rate my driver.	Rating form	Mandatory star	≤48h
5.3	As a driver, I want to rate my passenger.	Double-blind logic	Hidden identity	Linked to trip
5.4	As a user, I want to block another user.	Block list	Hidden from search	History kept
5.5	As a user, I want emergency contacts.	Contact table	Max 3	Mobile only
5.6	As a user, I want to share live trip status.	Tracking link	Expires	GPS perms
5.7	As a user, I want to report safety incidents.	Report UI	Admin alerted	Immutable
5.8	As a user, I want women-only ride preference.	Gender filter	Eligibility enforced	Availability-based
5.9	As a user, I want privacy settings.	Privacy hub	DB updates	Legal limits
5.10	As a user, I want GPS on/off toggle.	GPS switch	Booking blocked if off	OS-respected
5.11	As a user, I want in-app support.	Ticket system	Ticket ID shown	Attach ≤5MB
5.12	As a new user, I want onboarding help.	Tutorial screens	Offline cache	Skippable
5.13	As an Admin, I want to publish guidelines.	CMS	Re-accept enforced	Mandatory

ID	User Story	Task Set	Validation Criteria	Constraints
5.14	As an Admin, I want to review incidents.	Management UI	Audited actions	No auto-ban
5.15	As a user, I want to delete my account.	Delete flow	Permanent	No active rides

EPIC 6: PAYMENTS & BILLING

ID	User Story	Task Set	Validation Criteria	Constraints
6.1	As a user, I want to pay via multiple payment modes.	Payment gateway integration	Payment success	PCI compliant
6.2	As a system, I want to calculate total trip cost.	Distance + vehicle logic	Accurate fare	Configurable rates
6.3	As a system, I want to split cost per passenger.	Per-distance split engine	Fair allocation	No rounding loss
6.4	As a passenger, I want to pay my share securely.	Payment UI	Payment recorded	Mandatory
6.5	As a driver, I want to receive trip payments.	Settlement logic	Amount credited	Post-trip only
6.6	As a user, I want payment receipts.	Receipt generator	Matches DB	Read-only
6.7	As an Admin, I want to view payment logs.	Admin dashboard	Accurate totals	Audited
6.8	As a system, I want to handle failed payments.	Retry + rollback logic	No seat misuse	Timeout safe

End of consolidated epics and user stories