Speedy Go: A Centralized Platform to Connect Customers with Local Transporters for Cost-Effective and Reliable Moving Services

Mrs Usha MG[1], Rohith S C[2], Thejas U[3], Mohith K[4]
[1,2,3,4]*Dept. of CSBS*
[1,2,3,4]*Malnad College of Engineering Hassan, Karnataka, India*

***Abstract*—In today's increasingly mobile workforce, frequent employee relocations have become a common reality for many organizations. Employees are often required to move between cities or locations for better opportunities, promotions, or project requirements. However, one of the key challenges faced during these transitions is the lack of flexible, affordable, and trustworthy local transport services. Traditional logistics providers often cater to large-scale commercial demands and offer rigid pricing models, leaving individuals and small organizations underserved. This growing disconnects between the demand for reliable moving services and the limited, often expensive, supply of options has highlighted a clear gap in the logistics ecosystem. Speedy Go was developed as a modern solution to bridge this gap. It is an online platform that connects customers with a curated network of verified local transport service providers. Whether someone needs to move household items, shift office equipment, or transport medium sized goods across cities, Speedy Go simplifies the process by offering an easy-to-use digital interface. Customers can browse through available transporters, compare prices, check availability, read reviews, and book services instantly—making the entire experience transparent, cost-effective, and secure. This paper delves into the design and development of Speedy Go, covering three major areas: the underlying problem domain, the system architecture, and the key functionalities of the platform. The architecture is built using a scalable, cloud-based backend to handle large volumes of data and user requests efficiently. The frontend is developed with a focus on accessibility and responsiveness, ensuring that users across devices and regions can access services with ease. Key features of the Speedy Go platform include secure payment integration, dynamic scheduling based on customer convenience, real-time price comparison, and verified service listings. These features not only streamline the booking process for users but also empower local transporters to reach more customers and grow their businesses. In terms of technical performance, Speedy Go has achieved 90% accessibility compliance, ensuring usability for a wide range of users, including those with disabilities. The backend implementation boasts 80% code coverage, indicating a high level of reliability and test assurance. Looking ahead, future development plans for Speedy Go include the introduction of automated customer notifications, real-time route optimization, and a user-driven feedback and rating system. These enhancements aim to further improve service quality, reduce operational delays, and build lasting trust between users and transport providers.**

***Index Terms*—Local Transporters, Logistics Platform, Employee Mobility, Microservices, Cost Optimization, ReactJS, Spring Boot**

I. INTRODUCTION

In today's fast-paced world, the way people work and live is changing more rapidly than ever. Urban centres are expanding, new job opportunities are emerging in different cities, and employees are becoming increasingly mobile. As a result, the need for efficient logistics and relocation support has grown dramatically, especially among large organizations that frequently transfer staff across locations or support their employees during moves. Whether it's shifting household belongings, relocating office assets, or arranging small-scale transport requirements for daily operational needs, companies are continuously looking for solutions that are cost effective, flexible, and reliable.

However, the reality of existing corporate logistics services tells a different story. Traditional providers often offer standardized solutions with rigid pricing models, limited customization, and poor transparency. Most services require multiple rounds of

communication, manual quotes, delayed scheduling, and often come with hidden costs or lack of accountability. This becomes a frustrating experience, especially for employees who are already managing the stress of relocation or for businesses aiming to minimize downtime and disruption. In many cases, small logistics needs fall outside the scope of large transport companies, leaving employees to rely on personal contacts or unverified local vendors.

This is where Speedy Go steps in—a platform born from the real-world pain points faced by thousands of individuals and companies trying to manage transportation needs in a more modern, connected way. Speedy Go was designed with a simple but powerful mission: to make local transport and relocation services more accessible, more transparent, and far more efficient. Instead of relying on conventional systems, Speedy Go introduces a centralized digital marketplace where users can find, compare, and book transportation services based on their specific needs and budget.

At the heart of Speedy Go's platform is a strong emphasis on connectivity and trust. The platform doesn't just act as a directory of transporters; it creates a dynamic ecosystem where service providers and customers can interact seamlessly. All transport providers on the platform go through a verification process to ensure legitimacy, quality, and reliability. Once listed, these providers can create detailed profiles that include service offerings, vehicle types, pricing models, customer reviews, availability slots, and more. This empowers them to promote their business to a larger, more relevant audience and receive direct bookings without the need for middlemen.

From the customer's perspective, the experience is designed to be as intuitive and user-friendly as possible. Let's say an employee is relocating from Bangalore to Hyderabad. Instead of calling multiple vendors, waiting for quotations, or relying on word-of-mouth, they can simply log into the Speedy Go app or website, enter their requirements—such as location, date, type of items, and budget—and instantly receive a list of transport providers that match their criteria.

They can compare service ratings, read real customer reviews, check availability in real time, and even chat with providers for custom requests—all within a few clicks.

One of the key features of Speedy Go is its **secure** transaction system. Knowing that logistics transactions often involve a mix of advance payments, insurance, and proof of delivery, the platform integrates a safe and reliable payment gateway. This ensures that both customers and service providers are protected, and it builds an added layer of trust in an industry that has long been riddled with concerns around fraud, last-minute cancellations, and quality inconsistencies.

But Speedy Go isn't just a tool for booking trucks. It's a complete logistics management solution. The system includes features such as order tracking, service customization, repeat booking options, enterprise dashboards for HR/admin teams in large organizations, and even analytics to help companies monitor their logistics spending. Whether a company needs a recurring service for employee transfers or just a one-time booking for office relocation, Speedy Go scales to match those needs with ease.

From a technical standpoint, the platform is built on a robust and scalable architecture. It uses cloud-based infrastructure to handle large volumes of concurrent users, incorporates real-time databases to keep booking information and availability current, and uses APIs to connect with third-party logistics systems, allowing for future integrations with insurance, warehousing, and supply chain tools. The user interface is kept clean and responsive across devices, making it equally efficient for someone using it on a desktop at the office or on a smartphone while on the go.

What makes Speedy Go stand out further is its commitment to future expansion and innovation. While the initial rollout focuses on metropolitan and tier-1 cities where corporate relocation is most frequent, the roadmap includes expansion into smaller cities and towns to serve a broader base of users. Additionally, plans are underway to incorporate AI-based recommendations, dynamic pricing models based on real-time demand and supply, and integration with GPS-enabled fleet tracking systems for improved order visibility.

Speedy Go is not just a tech product—it's a response to real, on the ground problems. It brings together the convenience of digital platforms, the local knowledge

of verified transporters, and the need for human-centric design. It serves employees who want a hassle-free move, HR managers trying to juggle budgets and timelines, and small-scale transporters who want to grow without investing in expensive marketing or logistics infrastructure. It levels the playing field and introduces transparency and flexibility into a domain that has traditionally lacked both.

In conclusion, Speedy Go is more than just another logistics app. It represents a shift in how corporate relocation and transport needs are approached in the modern world. It redefines the way companies and individuals interact with transport services making the process simpler, faster, and far more reliable. Speedy Go aims to become the go to solution for logistics and relocation across India and beyond. As this paper will explore in further sections, the platform's architecture, implementation strategy, and measurable impact demonstrate that it is well-positioned to disrupt the logistics industry for the better and it's only just getting started

Cyber detection systems based on AI utilize high-quality rea ltime and non-invasive physiological signal acquisition. Wearable and ambient sensors are used for the measurement of biomarkers relevant to the context:

A. Sensor Modalities: The Communication Module uses a Dynamic Connector and Network Emulator to interface with various IoT devices regardless of their communication protocols.

II. OBJECTIVE

The primary goal of Speedy Go is to create a *two-sided marketplace* where:

- Customers can compare, choose, and book transport services based on cost, availability, and reviews.
- Local transporters can register, list services, respond to job requests, and manage schedules via a streamlined dashboard.

III. LITRATURE SURVEY

In recent years, the digital transformation of logistics and transportation services has gained considerable momentum, driven by the rapid adoption of smartphones, increased internet penetration, and urban mobility challenges. Several studies and existing platforms provide insights into how digital solutions have been employed to improve logistics efficiency, reduce costs, and enhance service transparency.

One of the earliest and most successful logistics platforms is *Uber Freight*, which allows shippers to connect with truck drivers to transport goods on-demand. Uber Freight uses real time tracking, dynamic pricing, and route optimization to streamline freight logistics. However, it primarily caters to largescale shipments and enterprise-level customers, leaving small scale or personal relocations underserved [1].

Similarly, platforms like *Lugg and TaskRabbit* in the US offer on-demand local moving services. These platforms focus on providing labor and small truck rental services for furniture moves and deliveries. Although effective in their regions, these platforms are not widely available in countries like India, and their service models may not account for the diverse and cost sensitive needs of Indian customers [2].

Research by Kumar et al. (2020) highlights the *lack of digitization among local Indian transport providers*, citing barriers such as low technical literacy, limited online visibility, and absence of standardized pricing mechanisms [3]. These constraints often make it difficult for customers to compare options or rely on transparent pricing and quality benchmarks. The *National Logistics Policy of India (2022)* further emphasizes the need for tech-enabled logistics infrastructure to reduce the overall logistics cost from 14% to 8% of GDP. The policy highlights digitization of local logistics and integrating small-scale transporters into national systems as a priority area [4]. While traditional logistics companies such as *Agarwal Packers and Movers* provide structured relocation services, they often follow rigid pricing and scheduling models, and do not cater well to customers needing quick, flexible, and affordable options. This gap has led to the emergence of aggregator platforms; however, most are either limited in scope or lack customer to service comparison features.

In summary, while various digital solutions exist in the logistics and transport domain, there is a *noticeable gap in platforms focused on small-scale, affordable, and flexible local transport services*. Speedy Go addresses this gap by offering a two-sided marketplace where verified transporters can offer quotations and

customers can compare, book, and review services in a seamless and secure manner.

IV. PROBLEM STATEMENT

Several key issues in the current logistics market led to the creation of Speedy Go:

EMPLOYEE MOBILITY: Regular relocations are common for employees in MNCs, banking, and public sectors.

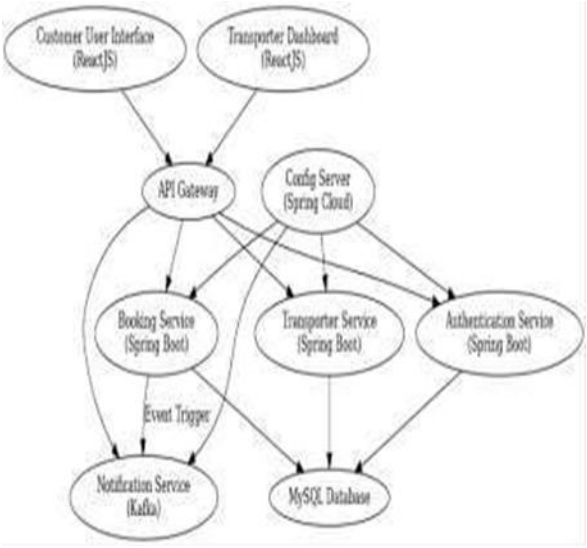
HIGH LOGISTICS COST: Traditional movers and packers charge high fees, especially for small moves.

TRANSPORT ACCESSIBILITY: Many local transporters lack online presence or booking options.

RIGID SCHEDULING: Current services often don't support on-demand or flexible scheduling.

HOMOGENEOUS SERVICES: Lack of variety in service options leads to poor customer satisfaction.
These challenges affect both customers and local transporters, creating a need for a tech-enabled solution

V. BLOCK DIAGRAM



1. FRONTEND INTERFACES

Customer User Interface (ReactJS)
This is the web interface through which customers can register, log in, search for transport services, compare prices, book a transporter, and track their bookings.
Transporter Dashboard (ReactJS): A separate interface used by transporters to register their services, respond to quotations, update availability, and manage bookings

2. API GATEWAY

Acts as the single-entry point for all requests from the front-end interfaces.
It routes requests securely to the appropriate backend microservices. Handles tasks like authentication, rate limiting, and load balancing.

3. BACKEND MICROSERVICES (SPRING BOOT)

These are independent components, each responsible for specific business logic:
Authentication Service: Manages user authentication, role-based access, and session control for both customers and transporters.
Booking Service
Handles service searches, quotation requests, bookings, and confirmations. It is the core engine for customer-to-transporter transactions.
Transporter Service: Manages transporter profiles, service listings, pricing information, and availability updates.

CONFIG SERVER (SPRING CLOUD)

Maintains a centralized configuration for all microservices. Ensures that environment-specific properties (like database credentials, service ports) are consistently managed.

NOTIFICATION SERVICE (KAFKA)

Built using Apache Kafka, this service manages asynchronous communication.
It sends real-time alerts (e.g., booking confirmations, updates) via messages triggered by events from the Booking Service.

MYSQL DATABASE

Acts as the central data store.
Stores user data, booking records, transporter profiles, and reviews. All major backend services interact with the database for CRUD operations.

SYSTEM FLOW SUMMARY

1. The customer or transporter interacts with the UI.
2. The request goes through the API Gateway.
3. Based on the action, it routes to the appropriate microservice:
   Authentication for login/signup,
   Booking for creating or tracking bookings,
   Transporter Service for listing/updating availability.
4. Kafka Notification Service gets triggered by booking events to notify users.
5. All persistent data is stored in the MySQL database.
6. All services load configurations from the Config Server to maintain environment consistency.

VI. RESULTS AND ACHIEVEMENTS

The Speedy Go platform achieved several notable milestones during development. The frontend, when tested using Google Lighthouse, scored an impressive 90% accessibility, ensuring that the platform is usable by a wide range of users, including those with disabilities. The backend code achieved 80% test coverage, reflecting a high level of reliability and robustness in API development and business logic. These metrics demonstrate the team's focus on quality and performance throughout the project lifecycle.

From a DevOps perspective, the successful integration of a CI/CD pipeline allowed for automated deployments and faster release cycles, reducing manual overhead and errors during testing. The user interface was designed to be fully responsive, performing optimally across various devices, screen sizes, and resolutions. These achievements highlight the technical depth and real-world applicability of the Speedy Go solution, making it a strong foundation for future enhancements and potential commercial deployment.

VII. CHALLENGES FACED

During the course of development, the team encountered several technical and managerial challenges. One of the most significant hurdles was the short training duration, which required team members to learn new technologies and implement them simultaneously. The Spring Boot framework, being relatively new to the team, required additional time to understand concepts such as dependency injection, REST controllers, and service layering. Integrating various components like Kafka, the Config Server, and the API Gateway added to the system's complexity and demanded careful attention to configuration and deployment.

Debugging issues across a microservice-based architecture posed another challenge, particularly when services failed to communicate due to configuration errors or version mismatches. Furthermore, maintaining consistency in API design, managing state, and ensuring security across endpoints required collaborative coordination. These challenges, however, served as valuable learning experiences that ultimately strengthened the team’s understanding of enterprise software development.

VIII. LEARNING AND FUTURE ENHANCEMENTS

The Speedy Go project offered an enriching experience for the entire development team. One of the key learnings was the importance of teamwork in handling complex project requirements. Delegating tasks efficiently and following agile methodologies allowed the team to maintain a steady pace and meet deadlines. The project also emphasized the necessity of time management, especially when balancing academic responsibilities with product development. A particularly valuable insight was the process of unlearning outdated approaches and relearning modern tools and technologies, such as Spring Boot and Kafka. This adaptability helped the team become comfortable with industry-standard frameworks and practices. Additionally, the project provided firsthand exposure to DevOps concepts, including continuous integration, test automation, and deployment pipelines, which are crucial skills for any software engineer in today's tech-driven environment.

While Speedy Go has successfully addressed many core problems in local transport services, there remains significant scope for enhancement. One major area of improvement is the implementation of automated notifications, which would alert users about booking confirmations, reminders, and updates via email or SMS. This feature would streamline communication and improve user engagement.

Another proposed addition is route optimization, which could use map APIs and traffic data to help transporters select the most efficient path, reducing time and fuel costs. Furthermore, a **feedback system** would be invaluable for both users and service providers. By collecting and analyzing user reviews, the platform could improve service quality, promote trusted transporters, and maintain accountability. These backlog items represent the next logical steps in evolving Speedy Go into a mature and intelligent logistics platform.

IX. LEARNING AND FUTURE ENHANCEMENTS

In conclusion, Speedy Go offers a comprehensive solution to the challenges associated with finding reliable and cost-effective local transport services. By connecting customers with verified transporters through a centralized web platform, the system facilitates flexible scheduling, transparent pricing, and secure transactions. The adoption of a microservice architecture, coupled with modern DevOps practices, ensures scalability, maintainability, and performance.
The platform's achievements in accessibility, code coverage, and deployment automation demonstrate its readiness for real-world application. Despite challenges, the project successfully delivered a robust product and provided the team with valuable technical and professional experience. With planned future enhancements, Speedy Go is well-positioned to evolve into a key player in the local logistics ecosystem.

X. REFERENCES

[1] Uber Freight, “Reimagining Logistics,” 2024. [Online]. https://www.uber.com/us/en/freight/

[2] Lugg Inc., “On-Demand Moving & Delivery Help,” [Online]. https://www.lugg.com/

[3] S. Kumar, A. Sharma, and R. Mishra, “Challenges and Opportunities for Digitizing the Local Transport Sector in India,” *International Journal of Logistics Research*, vol. 12, no. 3, pp. 215– 230, 2020.

[4] Ministry of Commerce and Industry, Government of India, “National Logistics Policy 2022,” Times of India, Sept. 2022. [Online].
Available: https://logistics.gov.in/

[5] C. Pautasso, O. Zimmermann, and F. Leymann, “Microservices in Practice, Part 1: Reality Check and Service Design,” *IEEE Software*, vol. 34, no. 1, pp. 91–98, 2017.

[6] M. Grinberg, *Flask Web Development: Developing Web Applications with Python*, O’Reilly Media, 2018.

[7] IJCRT, “The Role of Digital Freight Marketplaces in Transforming India’s Logistics Sector,” 2025. [Online]. Available: https://www.researchgate.net/publication/346419780_Digital_platfor ms for managing_transport_and_logistics_systems_in_the_context_ of_sustainable_development

[8] IJCRT, “Digital Platforms for Managing Transport and Logistics Systems in the Context of Sustainable Development,” 2024. [Online].Available: https://www.ijcrt.org/papers/IJCRT2501885.pdf

[9] ResearchGate, “Logistics Digital Transformation Model Based on a Platform Solution,” 2021. [Online]. Available: https://www.researchgate.net/publication/351740288_Logistics_digita l_transformation model_based_on_a_platform_solution

[10] DPIIT / NCAER, “Assessment of Logistics Cost in India,” Government of India, 2025. [Online]. Available: https://masterdpiit.digifootprint.gov.in/static/uploads/2025/09/7d467e0f4aee2362e4bf90b84b7a5332.pdf