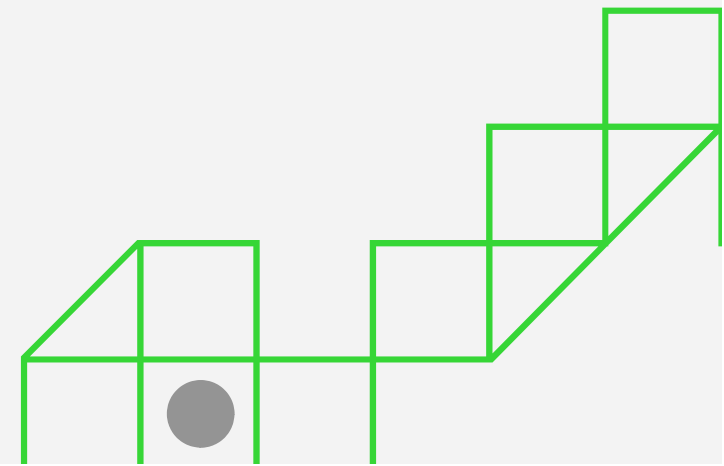# Revolutionizing Carpooling: Leveraging Ethereum for Decentralized Applications

# TEAM--ALPHA9
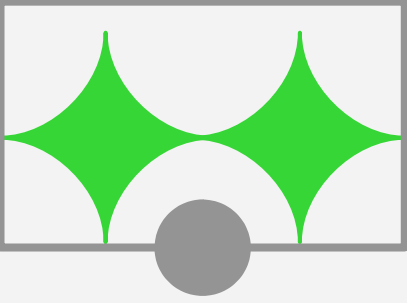
**Satyam Kumar Singh(20223236)**

**Rishabh Maurya(20223211)**
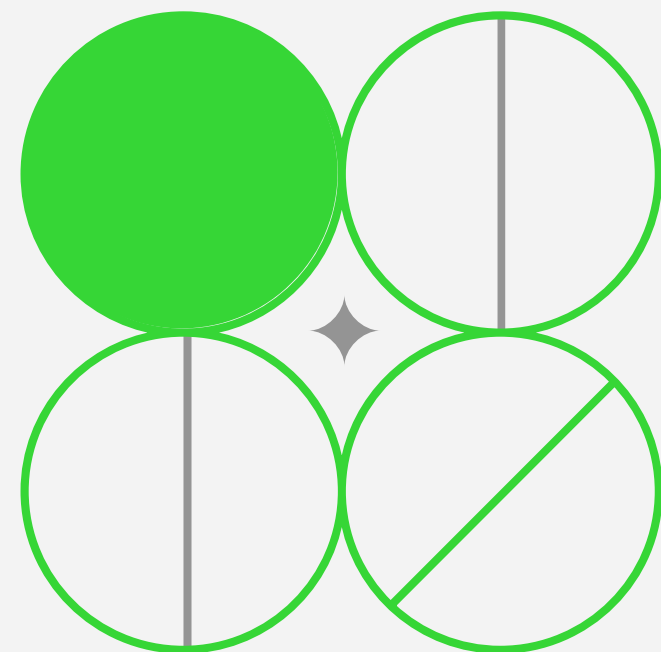
**Raj Gayakwad(20223197)**

**Sachin Yadav(20223221)**

**Nikhil Kumar Suman(20223164)**
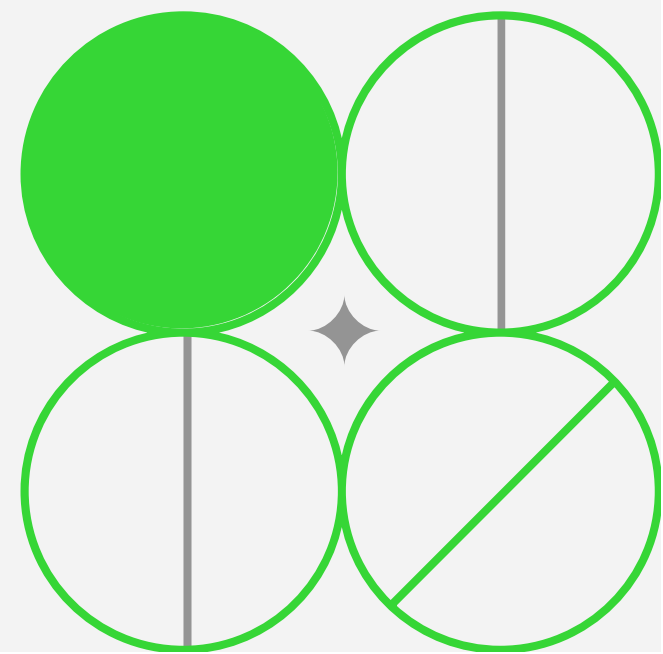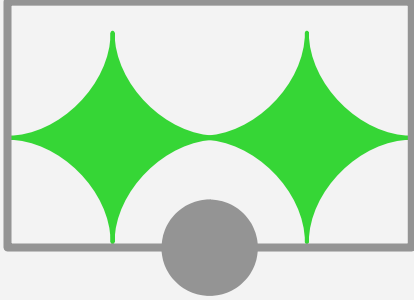
# Introduction to Carpooling

**Carpooling** is a shared transportation method that reduces costs and traffic congestion. In this presentation, we will explore how **Ethereum** and **decentralized applications** can enhance the carpooling experience, making it more efficient, secure, and user-friendly.
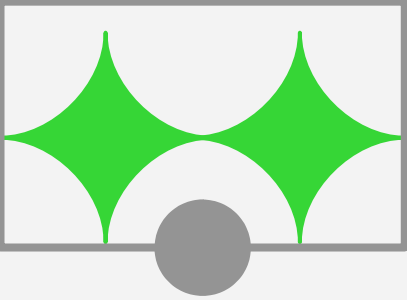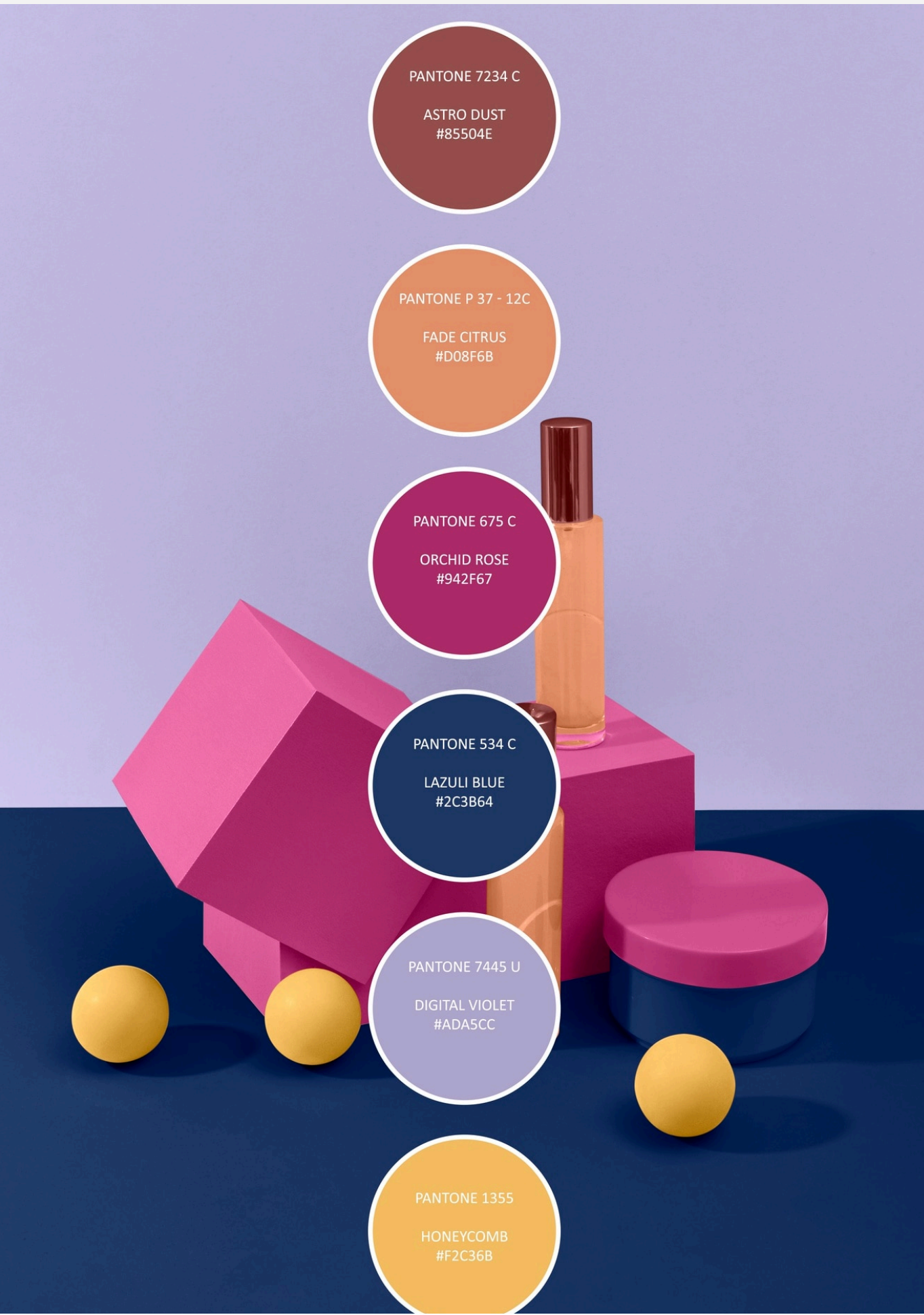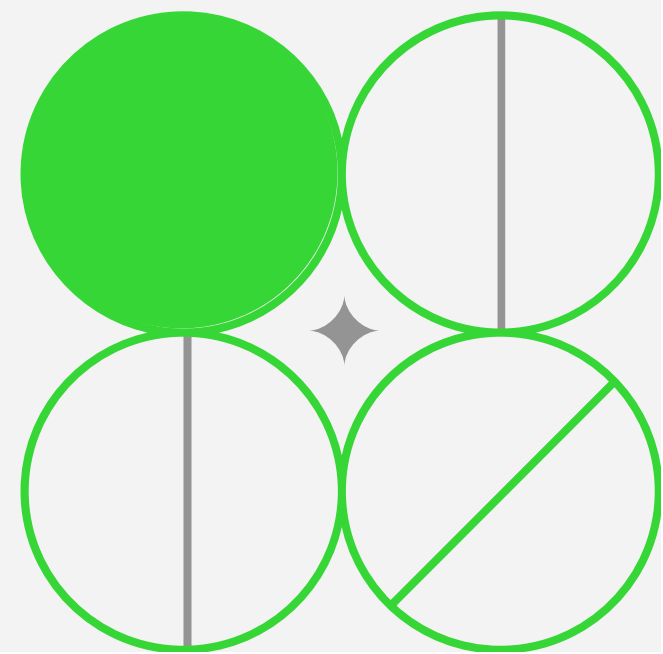
# The Need for Change

Traditional carpooling methods often face challenges such as **trust issues**, **coordination difficulties**, and lack of **transparency**. By leveraging **blockchain technology**, we can address these challenges and create a more robust carpooling ecosystem.
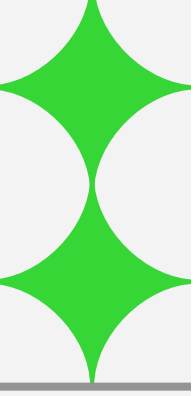
# Understanding Ethereum

**Ethereum** is a decentralized platform that enables developers to build **smart contracts** and **dApps**. Its flexibility and security make it ideal for implementing innovative solutions in the carpooling sector, fostering trust among users.

# Smart Contracts in Carpooling

Implementing **smart contracts** in carpooling can automate agreements between users. This ensures that **payments** are made securely and automatically when conditions are met, enhancing the overall user experience and reducing disputes.

# TECHNICAL OVERVIEW

**Blockchain:- Ethereum decentralized technology**

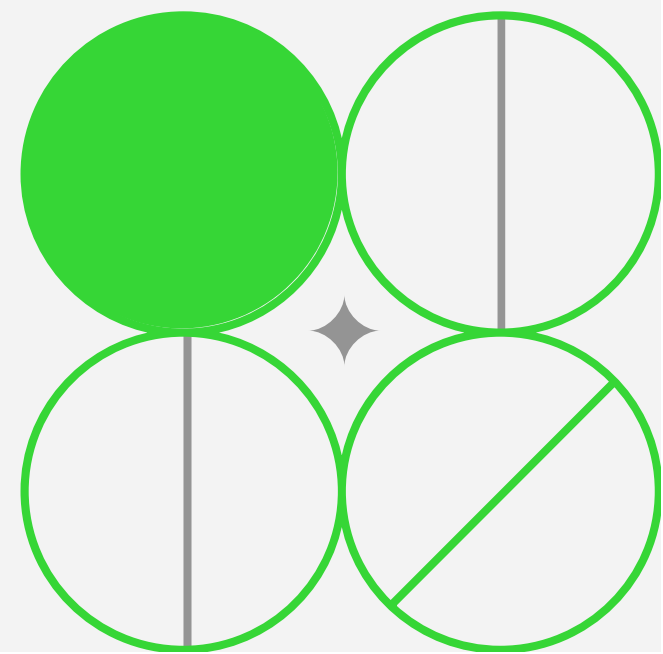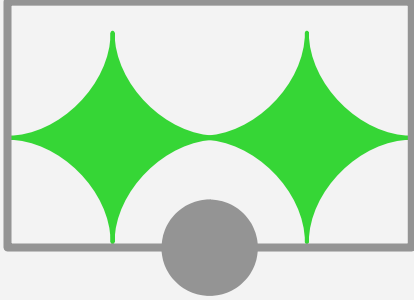**Smart Contracts:- written in solidity for managing transactions and integrity.**

**Web3 integration:-  Utilizing Web3.js and ether.js for blockchain interaction.**

**Javascript:-  Js-Query along with HTML & CSS stylesheet for frontend.**
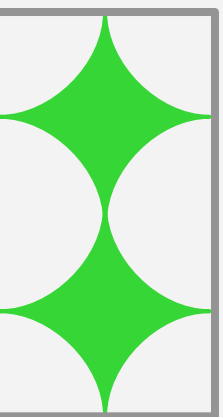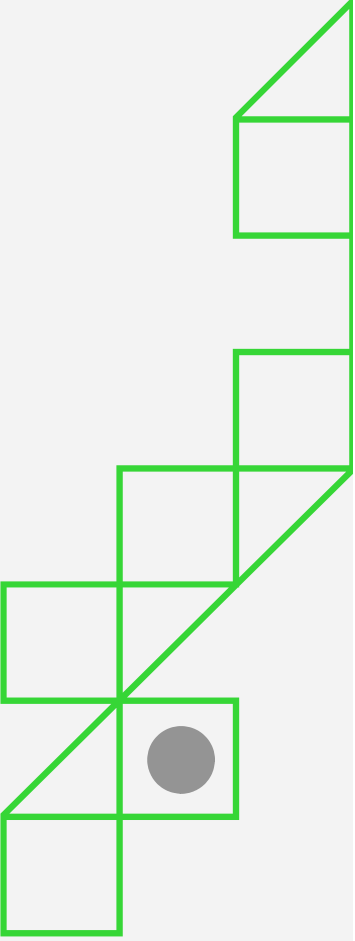
# Benefits of Decentralization

By utilizing a **decentralized system**, we can achieve greater **efficiency** and **reliability** in carpooling. Users can verify each other's credentials, leading to increased **trust** and a more satisfying experience overall.
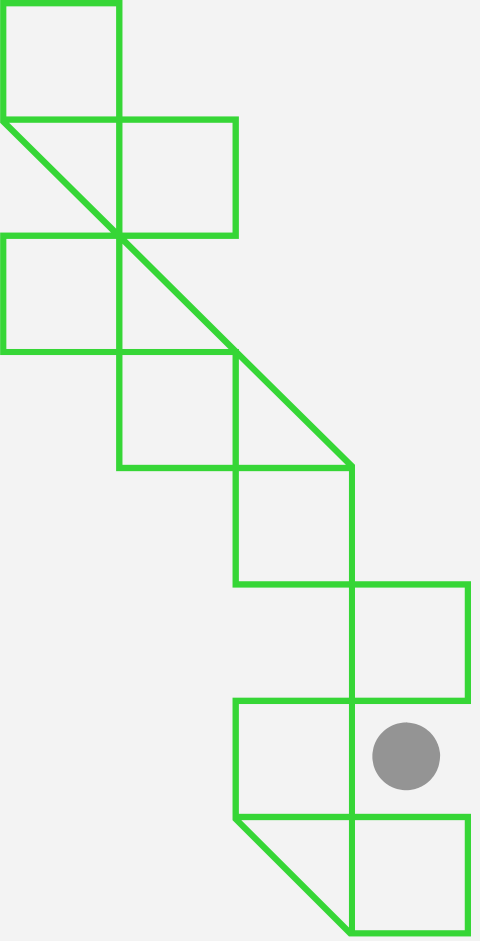
## CONCLUSION AND FUTURE OUTLOOK

The integration of **Ethereum** in carpooling presents a transformative opportunity. As we move forward, embracing **decentralized technologies** will not only enhance user experiences but also contribute to a more sustainable transportation model.

# Thanks!