

# Automation & Off-chain Data

## The Problem

In the realm of blockchain development, especially with decentralized applications (dApps), a significant challenge emerges in the form of limited auto-execution capabilities. Traditionally, smart contracts, despite their advanced functionalities, lack the inherent ability to initiate or call methods automatically. This limitation poses a hurdle in the seamless operation and scalability of blockchain applications.

## The Solution

To address this gap, automation solutions have been developed. These systems are designed to monitor both on-chain and off-chain data sources continuously. They are programmed to recognize specific predefined conditions. Once these conditions are met, the automation system springs into action, executing the necessary transactions without human intervention.

## Use cases

1. **Auto Harvesting in DeFi:** In decentralized finance applications, automation can manage yield farming strategies, harvesting rewards automatically when they reach a certain threshold, thereby optimizing the return on investment for users.
2. **Limit Orders in Trading:** Automated systems can execute trades when certain price points are hit, mirroring the functionality of limit orders in traditional trading but within a decentralized environment.