

# Snek.fun Product Roadmap

## 1. Bonding Curve Formula Research

- **Objective:** Conduct foundational research on adapting bonding curve mechanics to Cardano's smart contract environment.
- **Details:** Unlike pump.fun, snek.fun cannot directly utilize the same bonding curve formula due to Cardano's smart contract limitations, specifically the lack of power expression support. This phase will explore feasible alternatives or mathematical approximations compatible with Cardano's current smart contract capabilities.
- **Outcome:** Develop a reliable bonding curve formula tailored to the Cardano blockchain, ensuring compatibility and functionality within Cardano's scripting limitations.

## 2. Bonding Curve Pool Smart Contract Development

- **Objective:** Implement a dedicated smart contract to manage token launches through a bonding curve model.
- **Details:** This contract will be a core component for token creation, providing a secure and efficient storage and distribution system for tokens within the bonding curve. It will manage all essential launch parameters, including token issuance, initial pricing, and liquidity.
- **Outcome:** A fully functional Bonding Curve Pool smart contract that can facilitate token launches and act as a stable storage and distribution mechanism for tokens within the bonding curve structure.

## 3. Bonding Curve Order Smart Contract Development

- **Objective:** Create a smart contract that enables trading activities within the Bonding Curve Pool.
- **Details:** The Bonding Curve Order smart contract will allow users to place buy and sell orders tied to the Bonding Curve Pool. It will handle trade orders directly on-chain, leveraging Cardano's UTXO model to maintain transparency and security in trading activities.
- **Outcome:** A robust Bonding Curve Order smart contract that integrates seamlessly with the Bonding Curve Pool, enabling secure and automated trading operations.

#### 4. Off-Chain Infrastructure Support for Bonding Curve Contracts

- **Objective:** Establish off-chain infrastructure to support the Bonding Curve Pool and Order smart contracts.
- **Details:** This off-chain infrastructure will manage the ordering, batching, and execution of trade orders, as is typical for Cardano projects. It will ensure that on-chain activities are processed efficiently, addressing potential performance bottlenecks and enhancing user experience.
- **Outcome:** Reliable off-chain infrastructure that optimizes trade processing and execution written in Rust, maintaining smooth and responsive interactions with the Bonding Curve smart contracts.

#### 5. Analytics Backend Development

- **Objective:** Build a backend infrastructure for displaying comprehensive analytics on bonding curve performance and user engagement.
- **Details:** The analytics backend will compile and store relevant data for visual representation on the product's interface, such as trading volumes, token prices, historical trends, and user metrics.

It will serve as the primary data source for real-time and historical insights.

- **Outcome:** A fully developed analytics backend in Scala, providing detailed and actionable data for both users and administrators, facilitating informed decision-making and enhancing user engagement.

## 6. User Interface (UI) Development

- **Objective:** Design and implement a user interface that presents all functionalities and data in a user-friendly manner.
- **Details:** This stage will culminate in a fully operational interface, integrating the bonding curve trading mechanisms, analytics, and order management tools into a cohesive product. The UI will prioritize ease of use, with intuitive navigation and real-time updates on the bonding curve and market activities.
- **Outcome:** A polished, user-ready interface that completes the snek.fun product, offering seamless and interactive access to bonding curve functionalities and analytics.