### How the Draw Lucky Winner Process Works

#### 1. Lottery Draw Trigger:

- The lottery draw is automatically triggered under specific conditions:
  - The drawEnabled flag must be set to true.
  - The transfer of tokens must occur (\_transfer function is called).
  - The recipient (to) address in the transfer is the Uniswap pair address (uniswapV2Pair), indicating a sell transaction.
  - The current timestamp (block.timestamp) must be greater than the sum of lastLottery (the last time a lottery was drawn) and lotteryTime (the interval between lottery draws).

### 2. Random Winner Selection:

- When the conditions for the lottery are met, the drawRandomWinner() function is called.
- This function calculates the number of new tickets generated since the last lottery draw (newTickets), and selects five random winners from the holders who qualified during this period.
- The selection of winners uses a pseudo-random mechanism based on block data, such as blockhash, block.prevrandao, block.timestamp, msg.sender, and totalTickets. These values are hashed together using keccak256 to produce random numbers (rand1, rand2, rand3, rand4, rand5).
- The random numbers are used to select winners from the holderTickets mapping, which stores the eligible holders for the lottery.

#### 3. Assigning Winnings:

- Each selected winner (five winners in total) receives an equal share of the contract's balance divided by 5 (winMoney).
- The winnings are stored in the wins mapping, which keeps track of how much each winner has won.
- The claim time for each winner is set to one hour from the current timestamp (block.timestamp + 1 hours), meaning winners must wait for an hour after the draw before they can claim their winnings.
- An event Winners is emitted with the addresses of the five winners.

### How to Qualify

To qualify for the lottery:

- A user must make a buy transaction on the Uniswap pair (i.e., acquire tokens from the Uniswap liquidity pool). This is determined by the condition from == uniswapV2Pair in the \_transfer function.
- The amount of tokens purchased must be greater than or equal to the result of totalSupply() / SUPPLY\_DIVIDER. The SUPPLY\_DIVIDER is a parameter set by the contract owner (default is 1,000), which means a user must purchase at least 0.1% of the total supply in one transaction to qualify.
- If these conditions are met, the buyer's address is recorded in the holderTickets mapping, and the totalTickets count is incremented. This ticket serves as an entry for the next lottery draw.

# How to Win

- The winning process is entirely random and is determined by the drawRandomWinner() function. All eligible addresses stored in holderTickets from the last lottery draw to the current time have an equal chance of being selected as winners.
- The contract selects five random winners from the pool of eligible addresses using pseudo-random numbers generated with keccak256 hashes.
- Winners are awarded their share of the prize pool, which is one-fifth of the contract's current balance.

# How to Claim

- 1. Eligibility to Claim:
  - Winners can claim their prizes only after the set claim time has passed. The claim time for each winner is set to one hour after the draw (block.timestamp + 1 hours).
  - If you sell your tokens or transfer to another wallet, no matter how many, you are disqualified.

### 2. Claim Process:

- The winner calls the claimWins() function.
- This function checks:
  - That the caller (msg.sender) has winnings greater than 0 (wins[msg.sender] > 0).
  - That the contract has enough balance to pay out the winnings (address(this).balance >= wins[msg.sender]).
  - That the current timestamp (block.timestamp) is greater than or equal to the claim time (claimTime[msg.sender]).
- If all checks pass, the winnings are transferred to the caller's address using the sendValue() function from the Address library.

#### 3. Post-Claim:

• After claiming, the winner's amount in the wins mapping is reset to 0, and the claimTime is also reset.

### Summary

- **Qualification**: Buy a minimum number of tokens (at least 0.1% of the total supply by default) from the Uniswap liquidity pool.
- **Winning**: Five winners are selected randomly from qualified holders during a sell transaction after the lottery interval (lotteryTime).
- **Claiming**: Winners can claim their prize one hour after the draw, provided the contract has sufficient balance to cover the winnings.