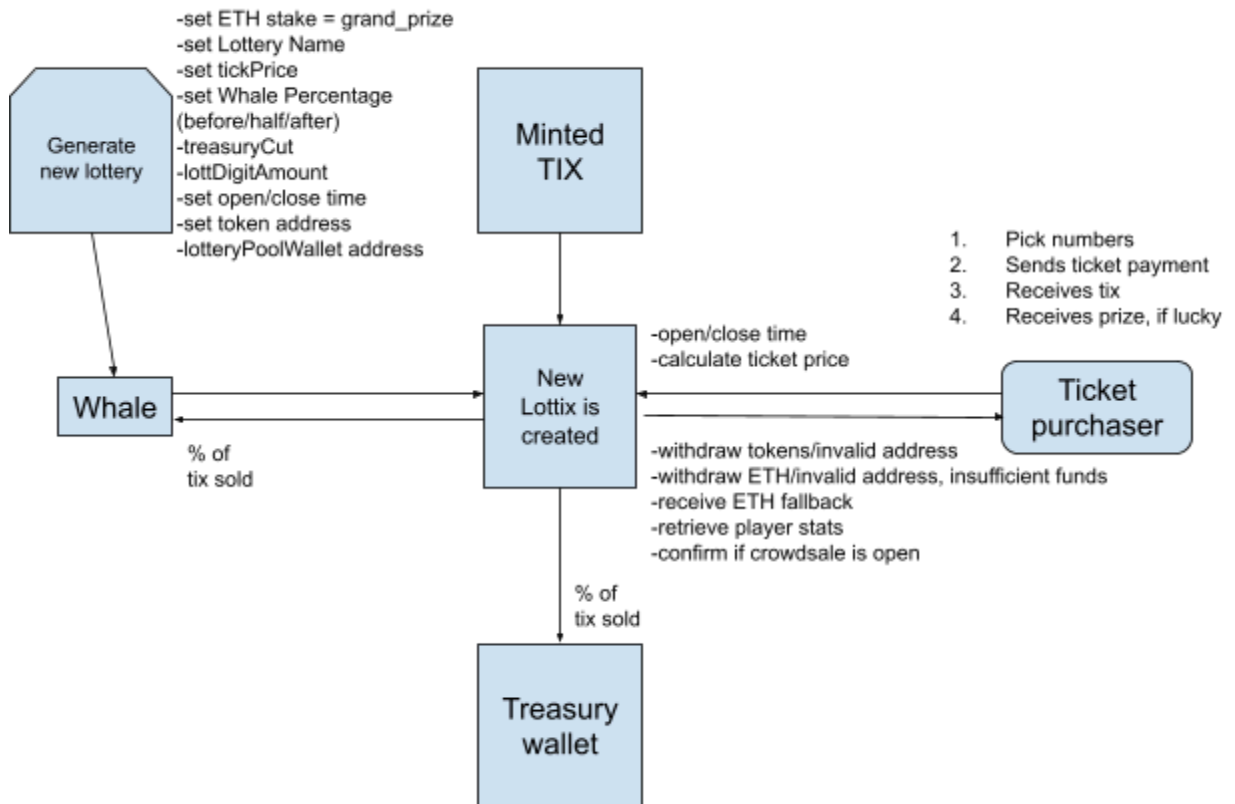


# LOTTIX - Initial Design Document and Brainstorm. February 2024

## Assumptions:

- ETH is the currency accepted and paid.
- We have to pay a gas fee for each of the transactions; which is budgeted as a fractional piece of the ticket price.



## Contracts

### 1. ILottoInterface

- React was used to create the Lottix **User Interface (UI)** and connect to the ILottoInterface contract.
- The UI presents potential whale investors with package options relative to the amount to invest in ETH.
- The package category names are Orca, Blue Whale, Grey Whale, Humpback, Whale Shark, Narwhal and Beluga.

- d. Solidity functions interact with the UI through the `ILotteryInterface.sol` contract.
- 2. **TIXMinter**
  - a. Issues tickets “TIX” (ERC-20 token). The approach to economize on gas is to mint tokens on demand, based on the creation of each lottery.
- 3. **Whales**
  - a. Investors stake funds at different levels. Getting a percentage back of the total ticket sales is their ROI.
  - b. If no jackpot is won, the whale\_wallet gets sent a % of the total pool\_wallet amount.
- 4. **Generate New Lottery**
- 5. **Lottix\_Byte**
  - a. This contract runs a draw and checks for winning numbers based on results of external lotteries.
  - b. How are winning numbers selected - Piggy backing on OLG (Daniel), Oracle (Daniel), or number generator (Anna)?
- 6. **Lottix**
  - a. Players buy TIX by paying a predetermined price in ETH. The amount is deposited into the Lottix wallet address.
  - b. Players pick their lucky number guesses. The number range depends on the type of lottery, which mimic others like EuroJack, Lotto 649, US Powerball, Mega Millions, AU Powerball, Super Enalotto, LottoMax and OZ Lotto.
  - c. The LOTTIX solution is scalable to link number picking to the React UI.

#### **Variable names**

- c. Some variables are shared across various contracts, values such as token addresses and contract names need to be inherited to deploy certain integration functions.

#### **Wallets:**

- d. Whale\_wallet
- e. Winner\_wallet
- f. Ticket\_buyer\_wallet
- g. Pool\_wallet (lotto jackpot)
- h. Treasury\_wallet (profits) - assuming distribution into other wallets

#### **ROADMAP**

- 1. Create contract to mint “TIX”.
  - a. NFT Token named TIX
  - b. Generated as a function that receives 7 numbers from the buyer and the wallet address of the purchaser

2. Lotto\_Byte contract
  - a. How to store the TIX numbers of the tickets purchased