Gas fees of the NFT marketplace contract

* Estimated gas cost for deploying this contract: 1,500,000 to 2,000,000 gas units. On the test net*
* Deploying the same contract on the Polygon Main net may cost approximately 3,000,000 to 4,000,000 gas units due to the higher gas prices and network usage on the main net compared to the test net. *

1. `mintToken` function:
   - Gas cost depends on the number of storage operations and the complexity of the function.
   - ●   Approximate gas cost on Polygon Mumbai TestNet: 150,000 - 200,000 gas units.
   - ●   Approximate gas cost on Polygon Main net: 300,000 - 400,000 gas units.

   - Reasons:
     - Incrementing the token counter (`_tokenIds.increment()`).
     - Minting an ERC-721 token (`_safeMint`).
     - Setting token metadata, price, owner, URI, title, and description.
     - Transferring MATIC (Ether) from the buyer to the contract.
     - Transferring royalty fee to the contract owner.
     - Refunding any excess MATIC back to the buyer.

2. `buyToken` function:
   - Gas cost depends on the number of storage operations and the complexity of the function.
   - ●   - Approximate gas cost on Polygon Mumbai TestNet: 150,000 - 200,000 gas units.
   - ●   Approximate gas cost on Polygon Main net: 300,000 - 400,000 gas units.

   - Reasons:
     - Checking if the token exists and has a valid owner (`_exists`).
     - Checking if the sender is not the token owner.
     - Checking if the sender has enough MATIC to buy the token.
     - Calculating and deducting royalty fee from the payment.
     - Transferring token ownership from the current owner to the buyer (`_transfer`).
     - Transferring MATIC to the token owner as payment.
     - Refunding any excess MATIC back to the buyer.

3. `getOwnerOfToken` function:
   - Gas cost depends on the number of storage operations and the complexity of the function.
   - ●   Approximate gas cost on Polygon Mumbai TestNet: 40,000 - 60,000 gas units.
   - ●   Approximate gas cost on Polygon Main net: 60,000 - 80,000 gas units.

   - Reasons:
     - Fetching the owner's address from `_tokenOwners` mapping.

4. `updateTokenPrice` function:
   - Gas cost depends on the number of storage operations and the complexity of the function.
   - Approximate gas cost on Polygon Mumbai TestNet: 100,000 - 150,000 gas units.
   - Approximate gas cost on Polygon Main net: 150,000 - 200,000 gas units.

   - Reasons:
      - Updating the token price in the `_tokenPrices` mapping.

5. `getNFTData` function:
   - Gas cost depends on the number of storage operations and the complexity of the function.
   - Approximate gas cost on Polygon Mumbai TestNet: 40,000 - 60,000 gas units.
   - Approximate gas cost on Polygon Main net: 60,000 - 80,000 gas units.

   - Reasons:
      - Fetching token data from `_tokenOwners`, `_tokenPrices`, `_tokenURI`, `_tokenTitle`, and `_tokenDescription` mappings.

6. `getTokenIds` function:
   - Gas cost depends on the number of storage operations and the complexity of the function.

   - Approximate gas cost on Polygon Mumbai TestNet: 40,000 - 60,000 gas units.
   - Approximate gas cost on Polygon Mainnet: 60,000 - 80,000 gas units.

   - Reasons:
      - Returning the `_tokenIds` counter.

7. `getTransactions` function:
   - Gas cost depends on the number of storage operations and the complexity of the function.
   - Approximate gas cost on Polygon Mumbai Testnet: 40,000 - 60,000 gas units.
   - Approximate gas cost on Polygon Mainnet: 60,000 - 80,000 gas units.

   - Reasons:
      - Returning the list of `TransactionStruct` data stored in the `transactions` array.

The actual gas fees will vary based on various factors such as the complexity of the contract, input data, gas prices at the time of execution, and the specific actions taken by the users interacting with the contract.

   - Optimized contract is also ready, which can save 100's of thousands of gas units in the mint, buy, update functions.