PUBLIC FUNCTIONS

function OnlineSale(uint256 quantity)

Functionality

1. Facilitate payable online sales through web3 portals

2. Mint NFTs

3. Update Contract Balance

Inputs

1. Quantity - amount of NFTs for sale

Requirements

1. Mint quantity must be greater than zero

2. Sufficient Funds

3. Sufficient Inventory

ADMIN FUNCTIONS

function OfflineSale(uint256 quantity, address customer)

Functionality

1. Facilitate sales paid offline

2. Mint NFTs

3. Update Contract Balance

Inputs

1. Quantity - amount of NFTs for sale

2. Customer - Customer address to transfer NFTs

Requirements

1. Mint quantity must be greater than zero

2. Admins cannot make offline sales to themselves

3. Sufficient Inventory

function UpdateMetaDataReference(string memory uri)

Functionality

1. Update metadata IPFS reference

Inputs

1. URI - Metadata reference on IPFS

Requirements

1. New URI cannot be the same as the old URI

2. URI cannot be an empty string

function CreateAdditionalNFTSupply(uint256 quantity, string memory uri)

Functionality

1. Create additional supply for NFT contract that is available for sale

2. Update metadata IPFS reference

3. Increase inventory

Inputs

1. Quantity - amount of NFTs to add to supply

2. URI - Metadata reference on IPFS

Requirements

1. Supply quantity must be greater than zero

2. New URI cannot be the same as the old URI

3. URI cannot be an empty string

function SetMintFee(uint256 fee)

Functionality

1. Update Fee for minting NFTs

Inputs

1. Fee - Cost of NFTs for sale

Requirements

1. Fee must be greater than zero

function EthToWei(string memory eth) returns (uint256, bool )

Functionality

1. Convert eth string value to integer

Inputs

1. eth - value of eth

Outputs

1. Uint256 - 256 bit integer

2. Bool - Boolean indicating valid number to string conversion

OWNER ONLY FUNCTIONS

function OnboardAdminRole(address admin)

Functionality

1. Grant admin role permission

Inputs

1. Admin - Address to be given admin role

Requirements

1. Admin address cannot be address of owner

function OffboardAdminRole(address admin)

Functionality

1. Revoke admin role permission

Inputs

1. Admin - Address to be given admin role

Requirements

1. Admin address cannot be address of owner

function UpdateAdminName(address admin, string memory name)

Functionality

1. Updates the name of admin

Inputs

1. Admin - Address to be given admin role

2. Name - string to set name of admin

Requirements

1. Admin address cannot be address of owner

2. Name cannot be equal to reserved keyword “OWNER”

3. Name cannot be an empty string

function ViewContractAdmins() returns(CONTRACT\_ADMINS[] memory)

Functionality

1. List all admins as a tuple (name, address)

function WithdrawETHFromContract(uint256 eth)

Functionality

1. Withdraws ETH from contract to owners account

2. Update contract balance

Inputs

1. ETH - amount of ETH in WEI to withdraw from contract

Requirements

1. Withdraw amount must be greater than zero

2. Contract balance must be greater or equal to withdrawal amount

3. Withdrawal can be invoked by Admin but sent to Owner’s account

function PayWithContract(address payee, uint256 eth)

Functionality

1. Transfers ETH from contract to payees account

2. Update contract balance

Inputs

1. Payee - Address to transfer ETH from contract

2. ETH - amount of ETH in WEI to transfer from contract

Requirements

1. Transfer amount must be greater than zero

2. Contract balance must be greater or equal to transfer amount

3. Admins cannot transfer to themselves

function TransferContractOwnership(address newOwner)

Functionality

1. Grant role permissions for new owner

2. Revoke role permissions for old owner

3. Updates admins list with new owner

4. Removes old owner from admins list

Inputs

1. New Owner - Address to transfer contract ownership

Requirements

1. New owner cannot be the same as previous owner

function NewNFTSupply(uint256 quantity, string memory uri)

Functionality

1. Create new supply for NFT contract that is available for sale

2. Update metadata IPFS reference

3. reset inventory

4. Set token id to 1 after resetting inventory

Inputs

1. Quantity - amount of NFTs to set start Inventory

2. URI - Metadata reference on IPFS

Requirements

1. Supply quantity must be greater than zero

2. New URI cannot be the same as the old URI

3. URI cannot be an empty string

INTERNAL OWNER ONLY FUNCTIONS