Solidity API

Base64

[MIT License] Provides a function for encoding some bytes in base64

TABLE

bytes TABLE

encode

function encode(bytes data) public pure returns (string)

Encodes some bytes to the base64 representation

Parameters

Name	Type	Description
data	bytes	- Data to encode

Return Values

Name	Type	Description
[0]	string	encoded string

Cast

Provides a function for casting between uint and string

uint2str

function uint2str(uint256 _i) public pure returns (string _uintAsString) Converts uint to string

Parameters

Name	Type	Description
i	uint256	- Number to convert

str2uint

function str2uint(string numString) public pure returns (uint256)

Converts string to uint

Parameters

Name	Type	Description
numString	string	- String to convert

nftMarketplace

balance

mapping(address => uint256) balance

listing

mapping(address => mapping(string => struct Listing)) listing

sellerIds

mapping(address => string[]) sellerIds

sellerOffers

mapping(address => struct SellerOffer[]) sellerOffers

isOwner

 $\verb|modifier isOwner(address concertAddr, uint256 tokenId, uint256 amount)|\\$

Modifier checks if sender is owner of proper amount tokens

Parameters

Name	Type	Description
concertAddr tokenId amount	address uint256 uint256	Address of concertToken IDAmount of tokens

is Not Listed

modifier isNotListed(address concertAddr, uint256 tokenId)

Modifier checks if token is not yet listed

Parameters

Name	Type	Description
concertAddr	address	- Address of concert
tokenId	uint256	- Token ID

isListed

modifier isListed(address concertAddr, address owner, uint256 tokenId) Modifier checks if token is listed

Parameters

Name	Type	Description
concertAddr owner tokenId	address address uint256	Address of concertOwner of tokenToken ID

${\bf insert Offer}$

 $\label{thm:concertAddr} function insertOffer(address concertAddr, struct Listing params) external \\ Function adds offer on marketplace$

Parameters

Name	Type	Description
concertAddr	address	- Address of concert
params	struct Listing	- Offer details

${\bf update Offer}$

 $\label{thm:constraint} function \ update Offer (address \ concert Addr, \ struct \ Listing \ params) \ external \\ Function \ updates \ offer \ on \ marketplace$

Parameters

Name	Type	Description
concertAddr	address	- Address of concert
params	struct Listing	- Offer details

deleteOffer

function $deleteOffer(address\ concertAddr,\ uint256\ tokenId)$ external payable Function $deletes\ offer\ on\ marketplace$

Parameters

Name	Type	Description
concertAddr	address	- Address of concert
tokenId	uint256	- Token ID

${\bf buy Ticket}$

function buyTicket(address concertAddr, address owner, uint256 tokenId, uint256 amount) extermine for buying ticket (token) from marketplace

Parameters

Name	Type	Description
$\overline{\mathrm{concertAddr}}$	address	- Address of concert
owner	address	- Current owner of token
tokenId	uint256	- Token ID
amount	uint256	- Amount of tokens to buy

withdraw

function withdraw(address payable destAddr) public

Function withdraws organizator credits

Parameters

Name	Type	Description
$\operatorname{destAddr}$	address payable	- Addres to send money

${\bf getSellerIds}$

function getSellerIds(address concert) public view returns (string[])

${\bf getOffersBySeller}$

function getOffersBySeller(address seller) public view returns (struct SellerOffer[])

```
{\bf getListedTicket}
function getListedTicket(address concertAddr, string sellerId) external view returns (structure)
tickeD1155
\mathbf{orgAddress}
address orgAddress
name
string name
description
string description
date
uint256 date
image
string image
sectors
struct Sector[] sectors
{\bf soldTokenIds}
mapping(string => uint256[]) soldTokenIds
ticketAttr
mapping(uint256 => struct Ticket) ticketAttr
```

supportsInterface

function supportsInterface(bytes4 interfaceId) public view virtual returns (bool)

constructor

constructor(address _owner, string _name, string _desc, uint256 _date, string _image, string

• Constructor initialize basic properties and creates structure of sectors

${\bf create And Mint Tickets}$

function createAndMintTickets() public

Function for creating tickets attributes and minting if specified. This function publish tickets

buyTicket

function buyTicket(uint256 tokenId, uint256 amount) external payable Function for buying ticket (token) for concert

Parameters

Name	Type	Description
tokenId	uint256	- ID of token
amount	uint256	- Amount of tokens to buy

uri

function uri(uint256 tokenId) public view returns (string) Function for compatibility with openSea way of displaying SFT properties

Parameters

Name	Type	Description
tokenId	uint256	- ID of token

tokenURI

function tokenURI(uint256 tokenId) public view returns (string) Function for compatibility with openSea way of displaying NFT properties

Parameters

Name	Type	Description
tokenId	uint256	- ID of token

addSectors

function addSectors(string[] _sectors) external
Function adds new sectors to concert

Parameters

Name	Type	Description	
_sectors	string[]	- Structure of sectors at audience	

${\bf with draw Org Credits}$

 $\label{lem:condition} function with draw Org Credits (address payable destAddr) \ public \\ Function with draws organizator credits$

Parameters

Name	Type	Description
destAddr	address payable	- Addres to send money

addResellFee

function addResellFee(uint256 fee) external

Function adds fee for each sale on marketplace for organizer

Parameters

Name	Type	Description
fee	uint256	- Credits

setDate

function setDate(uint256 newDate) external

getSectors

function getSectors() public view returns (struct Sector[])

getSoldTokenIds

function getSoldTokenIds(string sectorName) public view returns (uint256[])

tickeDFactory

whitelist

mapping(address => bool) whitelist

deployedContracts

mapping(address => struct DepConcert[]) deployedContracts

organizers

address[] organizers

tickeD1155Created

event tickeD1155Created(address owner, address tokenContract)

setOrganizatorPermission

 ${\tt function\ setOrganizatorPermission(address\ addr,\ bool\ toggle)\ public}$

Function that toggles organizator permission of creating concerts

Parameters

Name	Type	Description
addr toggle		Address of organizatorGranted permissions true/false

createEvent

function createEvent(string _name, string _desc, uint256 _date, string _image, string[] _sec_ Function creates new smarcontract concert

Parameters

Name	Type	Description
_name	string	- Name of concert
$_\mathrm{desc}$	string	- Description of concert
$_$ date	uint256	- Date of concert
$_$ image	string	- Image of audience layout
$_$ sectors	string[]	- Structure of sectors at audience

${\tt getDepContracts}$

 $\verb|function| getDepContracts(address| org)| public view returns (struct DepConcert[])|$

Function that returns all concerts for given organizer

Parameters

Name	Type	Description
org	address	- Address of organizator

Return Values

Name	Type	Description
[0]	struct DepConcert[]	List of deployed concerts

${\bf getOrganizers}$

function getOrganizers() public view returns (address[])
Function that returns all organizers for displaying concerts

Return Values

Name	Type	Description
[0]	$\operatorname{address}[]$	List of organizers

Sector

```
struct Sector {
   string name;
   bool isNumerable;
   uint256 seatStart;
   uint256 seatStop;
   bool mintedByOrg;
   uint256 price;
   uint256[] availableTokenIds;
}

Ticket

struct Ticket {
   string sectorName;
   uint256 seatNumber;
```

bool minted;
uint256 price;
bool sold;

}

DepConcert

```
struct DepConcert {
  address contractAddress;
  string name;
}
Listing
struct Listing {
  uint256 tokenId;
  uint256 amount;
  uint256 price;
  address seller;
}
ListedTicket
struct ListedTicket {
  struct Listing listing;
  struct Ticket ticket;
}
SellerOffer
struct SellerOffer {
```

address concertAddr;
string sellerId;

}