



ETHEREUM ARCHITECTURAL DESIGN PATTERNS – CONTRACT FACTORY WITH NAME REGISTRY

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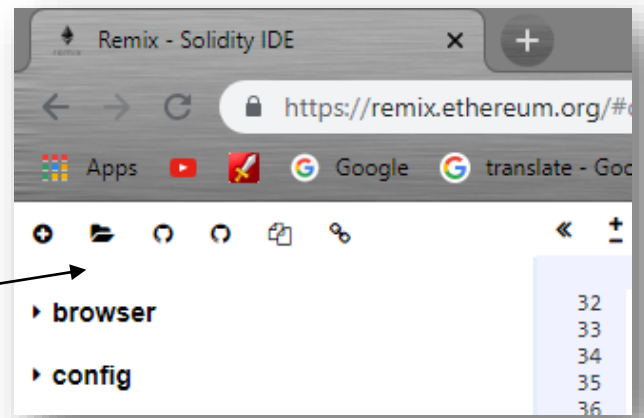
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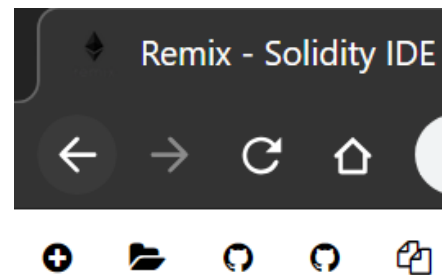
INSTRUCTIONS

Go to <https://remix.ethereum.org/>

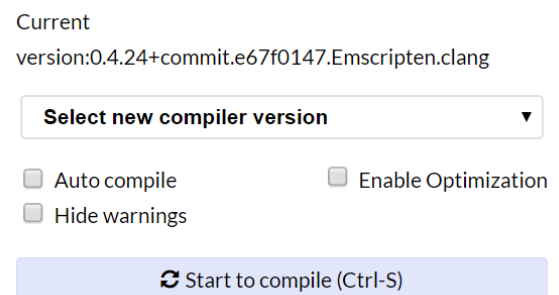
1. Click the icon and go to the folder
Directory of this document and select
LandFactory.sol and Registry.sol



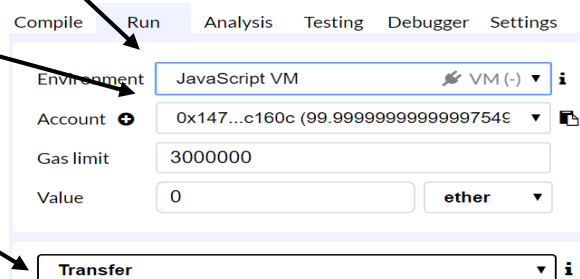
2. Click "browser" and it will collapse
find "LandFactory .sol" and select it.



3. Select new compiler version. Set it to 0.4.24+commit
version.
Then, select Run tab.



4. Select **Environment** change it to JavaScript VM.
5. Select **Account** from the drop down button. Remember you chosen account.
6. Click deploy.



Deploying the Contract

Make sure you select LandFactory then hit deploy.

LandFactory ▼

Deploy

Adding a Land

Find the addLand field and provide the inputs. First is the name of the land followed by its location then its coordinates then its area and finally the address of the landowner.

Ex. " "Uma", "Jaro", [2, 5], 3, 0xca35b7d915458ef540ade6068dfe2f44e8fa733c "

addLand

"Uma", "Jaro", [2, 5], 3, 0xca35b7d915458ef540ade6068dfe2f44e8fa733c" ▼

Getting a Land by Owner

Find the getBook field and put the address of the landowner. It will result to the address of the created land contract. Make sure to copy the result.

PS: Don't follow the examples of addresses here because you will have different addresses.

getLandByOwner

0xca35b7d915458ef540ade6068dfe2f44e8fa733c

▼

0: address:

0xCa1D01a9D304D38d5CB3b9382b5cc090330e7c4b

Getting the data of the Land Contract.

Go back to the deployment pane and switch it from LandFactory to Land. Paste the copied address in the field "At Address" and click it.

Land

▼

i

Deploy

string _location, uint256[] _coordinates, uint256

▼

or



At Address

0xCa1D01a9D304D38d5CB3b9382b5cc090330e7c4b

Go back to the deployed contracts and expand the newly added contract. It should look something like this.

▼

Land at 0xCa1...e7c4b (memory)



area

O: uint256: 3

coordinates

uint256

▼

O: uint256: 2

location

O: string: Jaro

owner

O: address:
0xCA35b7d915458EF540aDe6068dFe2F44E8fa733c

Getting the Contract from Name Registry

Find the `getContractFromRegistry` field and provide the name of the land. You will have the following results. First is the owner of the contract followed by the address of the contract.

getContractFromR
egistry

"Uma"

▼

O: address:
0xCA35b7d915458EF540aDe6068dFe2F44E8fa733c

1: address:
0xCa1D01a9D304D38d5CB3b9382b5cc090330e7c4b