

ABI 명세서


서론

블록홈즈에서 활용되는 스마트 컨트랙트 코드 설명 및 ABI를 작성한 문서입니다.

용어 설명

1. DID (Decentralized IDentifier) : 개체마다 고유한 값을 가지고 있는 분산 식별자
2. DID Document : DID의 공개 키들, 인증에 사용할 방식, 사용 서비스 등의 정보를 집약한 데이터
2. VC (Verifiable Credential) : 어떠한 사실을 증명하는 효력이 있는 자격 증명 데이터
3. SC (Smart Contract) : 계약 정보가 구현된, 특정 조건이 성립되면 실행되는 코드

1. ConsortiumSC

 기관들의 DID를 발급해주는 컨소시엄 SC

transaction hash :

0x0f7c46b1baf83fcfa1d5544298a33c9f170ad579dc3e4fcef6b1a8fb9ffd7f9e

Blocks: 0 Seconds: 0

contract address: 0xcf6e9786683E77A81acac0866aFdEbaBFc415ff2

block number: 153985692

block timestamp: 1715566909

balance: 51.654819475

gas used: 1924099 (0x1d5c03)

gas price: 25 gwei

value sent: 0 ETH

▼ ABI

```
[
  {
    "inputs": [],
    "stateMutability": "nonpayable",
    "type": "constructor"
  },
  {
    "inputs": [
      {
        "internalType": "address",
        "name": "owner",
        "type": "address"
      }
    ],
    "name": "OwnableInvalidOwner",
    "type": "error"
  },
  {
    "inputs": [
```

```

        {
            "internalType": "address",
            "name": "account",
            "type": "address"
        }
    ],
    "name": "OwnableUnauthorizedAccount",
    "type": "error"
},
{
    "anonymous": false,
    "inputs": [
        {
            "indexed": false,
            "internalType": "string",
            "name": "did",
            "type": "string"
        }
    ],
    "name": "DIDCreated",
    "type": "event"
},
{
    "anonymous": false,
    "inputs": [
        {
            "indexed": false,
            "internalType": "string",
            "name": "did",
            "type": "string"
        }
    ],
    "name": "DIDDeleted",
    "type": "event"
},
{
    "anonymous": false,
    "inputs": [
        {
            "indexed": true,
            "internalType": "address",
            "name": "previousOwner",
            "type": "address"
        },
        {
            "indexed": true,
            "internalType": "address",
            "name": "newOwner",
            "type": "address"
        }
    ],
    "name": "OwnershipTransferred",
    "type": "event"
},
{
    "inputs": [],
    "name": "owner",
    "outputs": [

```

```

    {
      "internalType": "address",
      "name": "",
      "type": "address"
    }
  ],
  "stateMutability": "view",
  "type": "function",
  "constant": true
},
{
  "inputs": [],
  "name": "renounceOwnership",
  "outputs": [],
  "stateMutability": "nonpayable",
  "type": "function"
},
{
  "inputs": [
    {
      "internalType": "address",
      "name": "newOwner",
      "type": "address"
    }
  ],
  "name": "transferOwnership",
  "outputs": [],
  "stateMutability": "nonpayable",
  "type": "function"
},
{
  "inputs": [
    {
      "internalType": "uint256",
      "name": "value",
      "type": "uint256"
    },
    {
      "internalType": "uint256",
      "name": "length",
      "type": "uint256"
    }
  ],
  "name": "toHexString",
  "outputs": [
    {
      "internalType": "string",
      "name": "",
      "type": "string"
    }
  ],
  "stateMutability": "pure",
  "type": "function",
  "constant": true
},
{
  "inputs": [
    {

```

```

        "internalType": "string",
        "name": "_publicKey",
        "type": "string"
    }
],
"name": "createdIDDDocument",
"outputs": [],
"stateMutability": "nonpayable",
"type": "function"
},
{
    "inputs": [
        {
            "internalType": "string",
            "name": "did",
            "type": "string"
        }
    ],
    "name": "getIDDDocument",
    "outputs": [
        {
            "components": [
                {
                    "internalType": "string",
                    "name": "context",
                    "type": "string"
                },
                {
                    "internalType": "string",
                    "name": "id",
                    "type": "string"
                }
            ],
            "type": "string"
        },
        {
            "components": [
                {
                    "internalType": "string",
                    "name": "id",
                    "type": "string"
                },
                {
                    "internalType": "string",
                    "name": "keyType",
                    "type": "string"
                },
                {
                    "internalType": "string",
                    "name": "controller",
                    "type": "string"
                },
                {
                    "internalType": "string",
                    "name": "publicKeyHex",
                    "type": "string"
                }
            ],
            "type": "string"
        }
    ],
    "internalType": "struct MinistryDIDRegistry.PublicKey",
    "name": "publicKey",
    "type": "tuple"
}

```

```

    },
    {
      "internalType": "string",
      "name": "authentication",
      "type": "string"
    }
  ],
  "internalType": "struct MinistryDIDRegistry.DIDDocument",
  "name": "",
  "type": "tuple"
}
],
"stateMutability": "view",
"type": "function",
"constant": true
},
{
  "inputs": [
    {
      "internalType": "string",
      "name": "did",
      "type": "string"
    }
  ],
  "name": "deleteDIDDocument",
  "outputs": [],
  "stateMutability": "nonpayable",
  "type": "function"
}
]

```

2. UserDIDRegistry



사용자의 DID Document 관리 SC

0x92e56Bbc4f4e05B6cC62d44c320E3BD020FDFAda

▼ ABI

```

[
  {
    "inputs": [],
    "stateMutability": "nonpayable",
    "type": "constructor"
  },
  {
    "inputs": [
      {
        "internalType": "address",
        "name": "owner",
        "type": "address"
      }
    ],
    "name": "OwnableInvalidOwner",

```

```

    "type": "error"
  },
  {
    "inputs": [
      {
        "internalType": "address",
        "name": "account",
        "type": "address"
      }
    ],
    "name": "OwnableUnauthorizedAccount",
    "type": "error"
  },
  {
    "anonymous": false,
    "inputs": [
      {
        "indexed": false,
        "internalType": "string",
        "name": "did",
        "type": "string"
      }
    ],
    "name": "DIDCreated",
    "type": "event"
  },
  {
    "anonymous": false,
    "inputs": [
      {
        "indexed": false,
        "internalType": "string",
        "name": "did",
        "type": "string"
      }
    ],
    "name": "DIDDeleted",
    "type": "event"
  },
  {
    "anonymous": false,
    "inputs": [
      {
        "indexed": true,
        "internalType": "address",
        "name": "previousOwner",
        "type": "address"
      },
      {
        "indexed": true,
        "internalType": "address",
        "name": "newOwner",
        "type": "address"
      }
    ],
    "name": "OwnershipTransferred",
    "type": "event"
  },

```

```

{
  "inputs": [
    {
      "internalType": "string",
      "name": "_publicKey",
      "type": "string"
    }
  ],
  "name": "createDIDDDocument",
  "outputs": [],
  "stateMutability": "nonpayable",
  "type": "function"
},
{
  "inputs": [
    {
      "internalType": "string",
      "name": "did",
      "type": "string"
    }
  ],
  "name": "deletedDIDDDocument",
  "outputs": [],
  "stateMutability": "nonpayable",
  "type": "function"
},
{
  "inputs": [
    {
      "internalType": "string",
      "name": "did",
      "type": "string"
    }
  ],
  "name": "getDIDDDocument",
  "outputs": [
    {
      "components": [
        {
          "internalType": "string",
          "name": "context",
          "type": "string"
        },
        {
          "internalType": "string",
          "name": "id",
          "type": "string"
        }
      ],
      "components": [
        {
          "internalType": "string",
          "name": "id",
          "type": "string"
        },
        {
          "internalType": "string",
          "name": "keyType",

```

```

        "type": "string"
    },
    {
        "internalType": "string",
        "name": "controller",
        "type": "string"
    },
    {
        "internalType": "string",
        "name": "publicKeyHex",
        "type": "string"
    }
],
"internalType": "struct DIDStruct.PublicKey",
"name": "publicKey",
"type": "tuple"
},
{
    "internalType": "string",
    "name": "authentication",
    "type": "string"
},
{
    "components": [
        {
            "internalType": "string",
            "name": "id",
            "type": "string"
        },
        {
            "internalType": "string",
            "name": "serviceType",
            "type": "string"
        },
        {
            "internalType": "string",
            "name": "serviceEndPoint",
            "type": "string"
        }
    ],
    "internalType": "struct DIDStruct.Service",
    "name": "service",
    "type": "tuple"
}
],
"internalType": "struct DIDStruct.DIDDocument",
"name": "",
"type": "tuple"
}
],
"stateMutability": "view",
"type": "function"
},
{
    "inputs": [
        {
            "internalType": "string",
            "name": "did",

```



```

        "type": "string"
      }
    ],
    "name": "getTaxContractAddress",
    "outputs": [
      {
        "internalType": "address",
        "name": "",
        "type": "address"
      }
    ],
    "stateMutability": "view",
    "type": "function"
  },
  {
    "inputs": [],
    "name": "owner",
    "outputs": [
      {
        "internalType": "address",
        "name": "",
        "type": "address"
      }
    ],
    "stateMutability": "view",
    "type": "function"
  },
  {
    "inputs": [],
    "name": "renounceOwnership",
    "outputs": [],
    "stateMutability": "nonpayable",
    "type": "function"
  },
  {
    "inputs": [
      {
        "internalType": "address",
        "name": "newOwner",
        "type": "address"
      }
    ],
    "name": "transferOwnership",
    "outputs": [],
    "stateMutability": "nonpayable",
    "type": "function"
  }
]

```

3. CitizenshipRegistry



신원 VC 관련 SC

0x9329387107fBb6b933778eC2c136FB112B5134c3

claimCredential(

subject : "did:klay:0x..사용자지갑주소" → 전부 소문자로

issuanceDate : 넣던 대로

)

getMessageHash(vc.subject, vc.issuanceDate, vc.value);

▼ ABI

```
[
  {
    "inputs": [],
    "stateMutability": "nonpayable",
    "type": "constructor"
  },
  {
    "inputs": [
      {
        "internalType": "address",
        "name": "owner",
        "type": "address"
      }
    ],
    "name": "OwnableInvalidOwner",
    "type": "error"
  },
  {
    "inputs": [
      {
        "internalType": "address",
        "name": "account",
        "type": "address"
      }
    ],
    "name": "OwnableUnauthorizedAccount",
    "type": "error"
  },
  {
    "anonymous": false,
    "inputs": [
      {
        "indexed": true,
        "internalType": "address",
        "name": "previousOwner",
        "type": "address"
      },
      {
        "indexed": true,
        "internalType": "address",
        "name": "newOwner",
        "type": "address"
      }
    ],
  },
]
```

```

        "name": "OwnershipTransferred",
        "type": "event"
    },
    {
        "anonymous": false,
        "inputs": [
            {
                "indexed": false,
                "internalType": "string",
                "name": "id",
                "type": "string"
            }
        ],
        "name": "VCcreated",
        "type": "event"
    },
    {
        "anonymous": false,
        "inputs": [
            {
                "indexed": false,
                "internalType": "string",
                "name": "id",
                "type": "string"
            }
        ],
        "name": "VCdeleted",
        "type": "event"
    },
    {
        "inputs": [
            {
                "internalType": "string",
                "name": "_subject",
                "type": "string"
            },
            {
                "internalType": "uint256",
                "name": "_issuanceDate",
                "type": "uint256"
            },
            {
                "internalType": "bytes32",
                "name": "_r",
                "type": "bytes32"
            },
            {
                "internalType": "bytes32",
                "name": "_s",
                "type": "bytes32"
            },
            {
                "internalType": "uint8",
                "name": "_v",
                "type": "uint8"
            }
        ],
        "name": "claimCredential",

```

```

        "outputs": [],
        "stateMutability": "nonpayable",
        "type": "function"
    },
    {
        "inputs": [
            {
                "internalType": "string",
                "name": "id",
                "type": "string"
            }
        ],
        "name": "deleteVC",
        "outputs": [],
        "stateMutability": "nonpayable",
        "type": "function"
    },
    {
        "inputs": [
            {
                "internalType": "string",
                "name": "id",
                "type": "string"
            }
        ],
        "name": "getVC",
        "outputs": [
            {
                "components": [
                    {
                        "internalType": "string",
                        "name": "issuer",
                        "type": "string"
                    },
                    {
                        "internalType": "string",
                        "name": "subject",
                        "type": "string"
                    },
                    {
                        "internalType": "uint256",
                        "name": "issuanceDate",
                        "type": "uint256"
                    },
                    {
                        "internalType": "string",
                        "name": "value",
                        "type": "string"
                    }
                ],
                "components": [
                    {
                        "internalType": "bytes32",
                        "name": "r",
                        "type": "bytes32"
                    },
                    {
                        "internalType": "bytes32",

```

```

        "name": "s",
        "type": "bytes32"
    },
    {
        "internalType": "uint8",
        "name": "v",
        "type": "uint8"
    }
],
"internalType": "struct CitizenshipVCRegistry.Proof",
"name": "proof",
"type": "tuple"
}
],
"internalType": "struct CitizenshipVCRegistry.Credential",
"name": "",
"type": "tuple"
}
],
"stateMutability": "view",
"type": "function"
},
{
    "inputs": [],
    "name": "owner",
    "outputs": [
        {
            "internalType": "address",
            "name": "",
            "type": "address"
        }
    ],
    "stateMutability": "view",
    "type": "function"
},
{
    "inputs": [],
    "name": "renounceOwnership",
    "outputs": [],
    "stateMutability": "nonpayable",
    "type": "function"
},
{
    "inputs": [
        {
            "internalType": "address",
            "name": "newOwner",
            "type": "address"
        }
    ],
    "name": "transferOwnership",
    "outputs": [],
    "stateMutability": "nonpayable",
    "type": "function"
},
{
    "inputs": [
        {

```

```

        "internalType": "string",
        "name": "_id",
        "type": "string"
      }
    ],
    "name": "verifyCredential",
    "outputs": [
      {
        "internalType": "bool",
        "name": "",
        "type": "bool"
      }
    ],
    "stateMutability": "view",
    "type": "function"
  }
]

```

4. RealEstateDIDRegistry



부동산 DID 관련 SC

부동산 DID contract 주소:

0xF52f87387272E75c372c193aB0d598cD44324b88

부동산 소유권 contract 주소:

0x9AAD87B5D7b5C64CFE694F48E2B1652442117294

▼ ABI

```

[
  {
    "inputs": [],
    "stateMutability": "nonpayable",
    "type": "constructor"
  },
  {
    "inputs": [
      {
        "internalType": "address",
        "name": "owner",
        "type": "address"
      }
    ],
    "name": "OwnableInvalidOwner",
    "type": "error"
  },
  {
    "inputs": [
      {
        "internalType": "address",
        "name": "account",
        "type": "address"
      }
    ]
  }
]

```

```

    ],
    "name": "OwnableUnauthorizedAccount",
    "type": "error"
  },
  {
    "anonymous": false,
    "inputs": [
      {
        "indexed": false,
        "internalType": "string",
        "name": "did",
        "type": "string"
      }
    ],
    "name": "DIDCreated",
    "type": "event"
  },
  {
    "anonymous": false,
    "inputs": [
      {
        "indexed": false,
        "internalType": "string",
        "name": "did",
        "type": "string"
      }
    ],
    "name": "DIDDeleted",
    "type": "event"
  },
  {
    "anonymous": false,
    "inputs": [
      {
        "indexed": true,
        "internalType": "address",
        "name": "previousOwner",
        "type": "address"
      },
      {
        "indexed": true,
        "internalType": "address",
        "name": "newOwner",
        "type": "address"
      }
    ],
    "name": "OwnershipTransferred",
    "type": "event"
  },
  {
    "inputs": [],
    "name": "owner",
    "outputs": [
      {
        "internalType": "address",
        "name": "",
        "type": "address"
      }
    ]
  }

```

```

    ],
    "stateMutability": "view",
    "type": "function",
    "constant": true
  },
  {
    "inputs": [],
    "name": "renounceOwnership",
    "outputs": [],
    "stateMutability": "nonpayable",
    "type": "function"
  },
  {
    "inputs": [
      {
        "internalType": "address",
        "name": "newOwner",
        "type": "address"
      }
    ],
    "name": "transferOwnership",
    "outputs": [],
    "stateMutability": "nonpayable",
    "type": "function"
  },
  {
    "inputs": [
      {
        "internalType": "uint256",
        "name": "value",
        "type": "uint256"
      },
      {
        "internalType": "uint256",
        "name": "length",
        "type": "uint256"
      }
    ],
    "name": "toHexString",
    "outputs": [
      {
        "internalType": "string",
        "name": "",
        "type": "string"
      }
    ],
    "stateMutability": "pure",
    "type": "function",
    "constant": true
  },
  {
    "inputs": [
      {
        "internalType": "string",
        "name": "_roadNameAddress",
        "type": "string"
      }
    ],
    {

```



```

        "internalType": "string",
        "name": "_buildingName",
        "type": "string"
    },
    {
        "internalType": "uint16",
        "name": "_buildingNumber",
        "type": "uint16"
    },
    {
        "internalType": "uint16",
        "name": "_roomNumber",
        "type": "uint16"
    },
    {
        "internalType": "bool",
        "name": "_isViolated",
        "type": "bool"
    },
    {
        "internalType": "bool",
        "name": "_isNotPermitted",
        "type": "bool"
    },
    {
        "internalType": "uint8",
        "name": "_estateType",
        "type": "uint8"
    },
    {
        "internalType": "string",
        "name": "_area",
        "type": "string"
    },
    {
        "internalType": "uint256",
        "name": "_date",
        "type": "uint256"
    },
    {
        "internalType": "string",
        "name": "_purpose",
        "type": "string"
    }
    ],
    "name": "createDIDDDocument",
    "outputs": [],
    "stateMutability": "nonpayable",
    "type": "function"
},
{
    "inputs": [
        {
            "internalType": "string",
            "name": "did",
            "type": "string"
        }
    ]
},
],

```

```

"name": "getDIDDocument",
"outputs": [
  {
    "components": [
      {
        "internalType": "string",
        "name": "context",
        "type": "string"
      },
      {
        "internalType": "string",
        "name": "id",
        "type": "string"
      },
      {
        "components": [
          {
            "internalType": "string",
            "name": "id",
            "type": "string"
          },
          {
            "internalType": "string",
            "name": "keyType",
            "type": "string"
          },
          {
            "internalType": "string",
            "name": "controller",
            "type": "string"
          }
        ],
        "internalType": "struct RealEstateDIDRegistry.PublicKey",
        "name": "publicKey",
        "type": "tuple"
      },
      {
        "internalType": "string",
        "name": "authentication",
        "type": "string"
      }
    ],
    "internalType": "struct RealEstateDIDRegistry.DIDDocument",
    "name": "",
    "type": "tuple"
  }
],
"stateMutability": "view",
"type": "function",
"constant": true
},
{
  "inputs": [
    {
      "internalType": "string",
      "name": "did",
      "type": "string"
    }
  ]
}

```

```

    ],
    "name": "deleteDIDDocument",
    "outputs": [],
    "stateMutability": "nonpayable",
    "type": "function"
  }
]

```

5. RealEstateInfo



부동산 DID에 해당하는 기본 정보 관련 Contract

▼ ABI

```

[
  {
    "inputs": [
      {
        "internalType": "string",
        "name": "_roadNameAddress",
        "type": "string"
      },
      {
        "internalType": "string",
        "name": "_buildingName",
        "type": "string"
      },
      {
        "internalType": "uint16",
        "name": "_buildingNumber",
        "type": "uint16"
      },
      {
        "internalType": "uint16",
        "name": "_roomNumber",
        "type": "uint16"
      },
      {
        "internalType": "bool",
        "name": "_isViolated",
        "type": "bool"
      },
      {
        "internalType": "bool",
        "name": "_isNotPermitted",
        "type": "bool"
      },
      {
        "internalType": "uint8",
        "name": "_estateType",
        "type": "uint8"
      },
      {
        "internalType": "string",
        "name": "_area",
        "type": "string"
      }
    ]
  }
]

```

```

    },
    {
      "internalType": "uint256",
      "name": "_date",
      "type": "uint256"
    },
    {
      "internalType": "string",
      "name": "_purpose",
      "type": "string"
    }
  ],
  "stateMutability": "nonpayable",
  "type": "constructor"
},
{
  "inputs": [
    {
      "internalType": "address",
      "name": "owner",
      "type": "address"
    }
  ],
  "name": "OwnableInvalidOwner",
  "type": "error"
},
{
  "inputs": [
    {
      "internalType": "address",
      "name": "account",
      "type": "address"
    }
  ],
  "name": "OwnableUnauthorizedAccount",
  "type": "error"
},
{
  "anonymous": false,
  "inputs": [
    {
      "indexed": true,
      "internalType": "address",
      "name": "previousOwner",
      "type": "address"
    },
    {
      "indexed": true,
      "internalType": "address",
      "name": "newOwner",
      "type": "address"
    }
  ],
  "name": "OwnershipTransferred",
  "type": "event"
},
{
  "inputs": [],

```

```

"name": "getRealEstateInfo",
"outputs": [
  {
    "components": [
      {
        "internalType": "string",
        "name": "roadNameAddress",
        "type": "string"
      },
      {
        "internalType": "string",
        "name": "buildingName",
        "type": "string"
      },
      {
        "internalType": "uint16",
        "name": "buildingNumber",
        "type": "uint16"
      },
      {
        "internalType": "uint16",
        "name": "roomNumber",
        "type": "uint16"
      },
      {
        "internalType": "bool",
        "name": "isViolated",
        "type": "bool"
      },
      {
        "internalType": "bool",
        "name": "isNotPermitted",
        "type": "bool"
      },
      {
        "internalType": "uint8",
        "name": "estateType",
        "type": "uint8"
      },
      {
        "internalType": "string",
        "name": "area",
        "type": "string"
      },
      {
        "internalType": "uint256",
        "name": "date",
        "type": "uint256"
      },
      {
        "internalType": "string",
        "name": "purpose",
        "type": "string"
      }
    ],
    "internalType": "struct RealEstateInfo.BasicInfo",
    "name": "",
    "type": "tuple"
  }
]

```

```

    }
  ],
  "stateMutability": "view",
  "type": "function"
},
{
  "inputs": [],
  "name": "owner",
  "outputs": [
    {
      "internalType": "address",
      "name": "",
      "type": "address"
    }
  ],
  "stateMutability": "view",
  "type": "function"
},
{
  "inputs": [],
  "name": "renounceOwnership",
  "outputs": [],
  "stateMutability": "nonpayable",
  "type": "function"
},
{
  "inputs": [
    {
      "internalType": "address",
      "name": "newOwner",
      "type": "address"
    }
  ],
  "name": "transferOwnership",
  "outputs": [],
  "stateMutability": "nonpayable",
  "type": "function"
}
]

```

6. OwnershipVCRegistry



부동산 소유권 VC 관련 SC

▼ ABI

```

[
  {
    "inputs": [],
    "stateMutability": "nonpayable",
    "type": "constructor"
  },
  {

```

```

    "inputs": [
      {
        "internalType": "address",
        "name": "owner",
        "type": "address"
      }
    ],
    "name": "OwnableInvalidOwner",
    "type": "error"
  },
  {
    "inputs": [
      {
        "internalType": "address",
        "name": "account",
        "type": "address"
      }
    ],
    "name": "OwnableUnauthorizedAccount",
    "type": "error"
  },
  {
    "anonymous": false,
    "inputs": [
      {
        "indexed": true,
        "internalType": "address",
        "name": "previousOwner",
        "type": "address"
      },
      {
        "indexed": true,
        "internalType": "address",
        "name": "newOwner",
        "type": "address"
      }
    ],
    "name": "OwnershipTransferred",
    "type": "event"
  },
  {
    "anonymous": false,
    "inputs": [
      {
        "indexed": false,
        "internalType": "string",
        "name": "id",
        "type": "string"
      }
    ],
    "name": "VCcreated",
    "type": "event"
  },
  {
    "anonymous": false,
    "inputs": [
      {
        "indexed": false,

```

```

        "internalType": "string",
        "name": "id",
        "type": "string"
    },
],
"name": "VCdeleted",
"type": "event"
},
{
    "inputs": [
        {
            "internalType": "string",
            "name": "_subject",
            "type": "string"
        },
        {
            "internalType": "uint256",
            "name": "_issuanceDate",
            "type": "uint256"
        },
        {
            "internalType": "bytes32",
            "name": "_r",
            "type": "bytes32"
        },
        {
            "internalType": "bytes32",
            "name": "_s",
            "type": "bytes32"
        },
        {
            "internalType": "uint8",
            "name": "_v",
            "type": "uint8"
        },
        {
            "internalType": "string",
            "name": "_value",
            "type": "string"
        }
    ],
    "name": "claimCredential",
    "outputs": [],
    "stateMutability": "nonpayable",
    "type": "function"
},
{
    "inputs": [
        {
            "internalType": "string",
            "name": "id",
            "type": "string"
        }
    ],
    "name": "deleteVC",
    "outputs": [],
    "stateMutability": "nonpayable",
    "type": "function"
}

```



```

},
{
  "inputs": [
    {
      "internalType": "string",
      "name": "_userDID",
      "type": "string"
    }
  ],
  "name": "getAllVCofUser",
  "outputs": [
    {
      "internalType": "string[]",
      "name": "",
      "type": "string[]"
    }
  ],
  "stateMutability": "view",
  "type": "function"
},
{
  "inputs": [
    {
      "internalType": "string",
      "name": "id",
      "type": "string"
    }
  ],
  "name": "getVC",
  "outputs": [
    {
      "components": [
        {
          "internalType": "string",
          "name": "issuer",
          "type": "string"
        },
        {
          "internalType": "string",
          "name": "subject",
          "type": "string"
        },
        {
          "internalType": "uint256",
          "name": "issuanceDate",
          "type": "uint256"
        },
        {
          "internalType": "string",
          "name": "value",
          "type": "string"
        }
      ],
      "components": [
        {
          "internalType": "bytes32",
          "name": "r",
          "type": "bytes32"
        }
      ]
    }
  ]
}

```

```

        },
        {
            "internalType": "bytes32",
            "name": "s",
            "type": "bytes32"
        },
        {
            "internalType": "uint8",
            "name": "v",
            "type": "uint8"
        }
    ],
    "internalType": "struct OwnershipVRegistry.Proof",
    "name": "proof",
    "type": "tuple"
}

],
"internalType": "struct OwnershipVRegistry.Credential",
"name": "",
"type": "tuple"
}
],
"stateMutability": "view",
"type": "function"
},
{
    "inputs": [],
    "name": "owner",
    "outputs": [
        {
            "internalType": "address",
            "name": "",
            "type": "address"
        }
    ],
    "stateMutability": "view",
    "type": "function"
},
{
    "inputs": [],
    "name": "renounceOwnership",
    "outputs": [],
    "stateMutability": "nonpayable",
    "type": "function"
},
{
    "inputs": [
        {
            "internalType": "address",
            "name": "newOwner",
            "type": "address"
        }
    ],
    "name": "transferOwnership",
    "outputs": [],
    "stateMutability": "nonpayable",
    "type": "function"
},

```

```

{
  "inputs": [
    {
      "internalType": "string",
      "name": "_id",
      "type": "string"
    }
  ],
  "name": "verifyCredential",
  "outputs": [
    {
      "internalType": "bool",
      "name": "",
      "type": "bool"
    }
  ],
  "stateMutability": "view",
  "type": "function"
}
]

```

7. 전세 계약서



전세 계약 contract 관련 SC (계약 시점에 당사자가 직접 Byte 코드를 체인에 배포)

▼ Byte Code

608060405234801561000f575f80fd5b506040516123dc3803806123dc8339818101604052810190610031919061066

▼ ABI

```

[
  {
    "inputs": [
      {
        "internalType": "address",
        "name": "_landlordAddress",
        "type": "address"
      },
      {
        "internalType": "address",
        "name": "_tenantAddress",
        "type": "address"
      },
      {
        "internalType": "uint16",
        "name": "_leasePeriod",
        "type": "uint16"
      },
      {
        "internalType": "uint256",
        "name": "_deposit",
        "type": "uint256"
      },
      {
        "internalType": "string",
        "name": "_propertyDID",

```

```

        "type": "string"
    },
    {
        "internalType": "string",
        "name": "_contractDate",
        "type": "string"
    },
    {
        "internalType": "string",
        "name": "_terms",
        "type": "string"
    },
    {
        "internalType": "bytes32",
        "name": "_r",
        "type": "bytes32"
    },
    {
        "internalType": "bytes32",
        "name": "_s",
        "type": "bytes32"
    },
    {
        "internalType": "uint8",
        "name": "_v",
        "type": "uint8"
    }
],
"stateMutability": "nonpayable",
"type": "constructor"
},
{
    "inputs": [],
    "name": "rentalContract",
    "outputs": [
        {
            "components": [
                {
                    "internalType": "string",
                    "name": "landlordDID",
                    "type": "string"
                },
                {
                    "internalType": "string",
                    "name": "tenantDID",
                    "type": "string"
                },
                {
                    "internalType": "uint16",
                    "name": "leasePeriod",
                    "type": "uint16"
                },
                {
                    "internalType": "uint256",
                    "name": "deposit",
                    "type": "uint256"
                }
            ]
        }
    ]
}

```

```

        "internalType": "string",
        "name": "propertyDID",
        "type": "string"
    },
    {
        "internalType": "string",
        "name": "contractDate",
        "type": "string"
    },
    {
        "internalType": "string",
        "name": "terms",
        "type": "string"
    }
],
"internalType": "struct LongTermRent.ContractInfo",
"name": "contractInfo",
"type": "tuple"
},
{
    "components": [
        {
            "internalType": "bytes32",
            "name": "r",
            "type": "bytes32"
        },
        {
            "internalType": "bytes32",
            "name": "s",
            "type": "bytes32"
        },
        {
            "internalType": "uint8",
            "name": "v",
            "type": "uint8"
        }
    ],
    "internalType": "struct LongTermRent.Signature",
    "name": "tenantSignature",
    "type": "tuple"
},
{
    "components": [
        {
            "internalType": "bytes32",
            "name": "r",
            "type": "bytes32"
        },
        {
            "internalType": "bytes32",
            "name": "s",
            "type": "bytes32"
        },
        {
            "internalType": "uint8",
            "name": "v",
            "type": "uint8"
        }
    ]
}

```

```

        ],
        "internalType": "struct LongTermRent.Signature",
        "name": "landlordSignature",
        "type": "tuple"
    }
],
"stateMutability": "view",
"type": "function"
},
{
    "inputs": [],
    "name": "returnDeposit",
    "outputs": [],
    "stateMutability": "payable",
    "type": "function"
},
{
    "inputs": [
        {
            "internalType": "bytes32",
            "name": "_r",
            "type": "bytes32"
        },
        {
            "internalType": "bytes32",
            "name": "_s",
            "type": "bytes32"
        },
        {
            "internalType": "uint8",
            "name": "_v",
            "type": "uint8"
        }
    ],
    "name": "tenantSign",
    "outputs": [],
    "stateMutability": "payable",
    "type": "function"
},
{
    "inputs": [],
    "name": "verifyLandlordSignature",
    "outputs": [
        {
            "internalType": "bool",
            "name": "",
            "type": "bool"
        }
    ],
    "stateMutability": "view",
    "type": "function"
},
{
    "inputs": [],
    "name": "verifyTenantSignature",
    "outputs": [
        {
            "internalType": "bool",

```

```
        "name": "",
        "type": "bool"
      }
    ],
    "stateMutability": "view",
    "type": "function"
  },
  {
    "inputs": [],
    "name": "withdrawDeposit",
    "outputs": [],
    "stateMutability": "nonpayable",
    "type": "function"
  }
]
```