

# day71-sol-for-while-dowhile

☰ 태그	
📅 날짜	@2023년 1월 9일

for, while, do-while

- 기본형태

```
for(초기값; 조건문; 증가문)
{
    반복 내용
}
```

for문

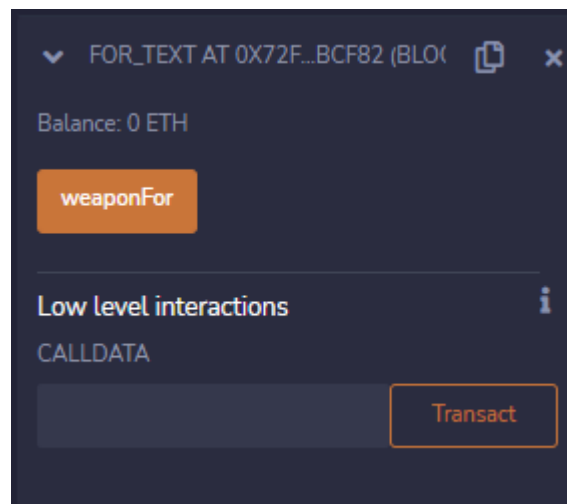
```
// SPDX-License-Identifier: GPL-3.0
pragma solidity >=0.8.0 <0.9.0;

//반복문
// for, while, do-while

//for
contract for_text{
    event Weapon(uint256 indexed _index, string _weapon);

    string[] private WeaponList = ["sword","magicstick","magicsword","katana","bow"];

    function weaponFor() public{
        for(uint256 i=0; i<WeaponList.length; i++){
            emit Weapon(i, WeaponList[i]);
        }
    }
}
```



```
logs
[
  {
    "from": "0x72f40A880A2fA7Ea7a8Aa88406184E82Fb7b0f82",
    "to": "0x859201a8928085dda8b1da25f9f0cb5084421f2d9f8d4098995c55420980e8d9",
    "event": "Weapon",
    "args": {
      "0": "0",
      "1": "sword",
      "_index": "0",
      "_weapon": "sword"
    }
  },
  {
    "from": "0x72f40A880A2fA7Ea7a8Aa88406184E82Fb7b0f82",
    "to": "0x859201a8928085dda8b1da25f9f0cb5084421f2d9f8d4098995c55420980e8d9",
    "event": "Weapon",
    "args": {
      "0": "1",
      "1": "magioetick",
      "_index": "1",
      "_weapon": "magioetick"
    }
  },
  {
    "from": "0x72f40A880A2fA7Ea7a8Aa88406184E82Fb7b0f82",
    "to": "0x859201a8928085dda8b1da25f9f0cb5084421f2d9f8d4098995c55420980e8d9",
    "event": "Weapon",
    "args": {
      "0": "2",
      "1": "magiosword",
      "_index": "2",
      "_weapon": "magiosword"
    }
  },
  {
    "from": "0x72f40A880A2fA7Ea7a8Aa88406184E82Fb7b0f82",
    "to": "0x859201a8928085dda8b1da25f9f0cb5084421f2d9f8d4098995c55420980e8d9",
    "event": "Weapon",
    "args": {
      "0": "3",
      "1": "katana",
      "_index": "3",
      "_weapon": "katana"
    }
  },
  {
    "from": "0x72f40A880A2fA7Ea7a8Aa88406184E82Fb7b0f82",
    "to": "0x859201a8928085dda8b1da25f9f0cb5084421f2d9f8d4098995c55420980e8d9",
    "event": "Weapon",
    "args": {
      "0": "4",
      "1": "bow",
      "_index": "4",
      "_weapon": "bow"
    }
  }
]
```

## 반복문

- 기본형태

```
초기값
while(조건문){
    반복할 내용
    증가값
}
```

```
// SPDX-License-Identifier: GPL-3.0
pragma solidity >=0.8.0 <0.9.0;

//while

contract while_test{
    event Weapon(uint256 indexed _index, string _weapon);

    string[] private WeaponList = ["sword","magicstick","magicsword","katana","bow"];

    function weaponWhile() public{
        uint256 i = 0;
        while(i<WeaponList.length)
        {
            emit Weapon(i, WeaponList[i]);
            i++;
        }
    }
}
```

```

logs
[
  {
    "from": "0xb5dd028A4008E818f0D75F4D12c6fa4c951Af28a",
    "topio": "0xb59201a8928083dda8b1da25f9f0cb5084421f2d9f8d4098395c55420980e6d9",
    "event": "Weapon",
    "args": {
      "0": "0",
      "1": "sword",
      "_index": "0",
      "_weapon": "sword"
    }
  },
  {
    "from": "0xb5dd028A4008E818f0D75F4D12c6fa4c951Af28a",
    "topio": "0xb59201a8928083dda8b1da25f9f0cb5084421f2d9f8d4098395c55420980e6d9",
    "event": "Weapon",
    "args": {
      "0": "1",
      "1": "magiostioik",
      "_index": "1",
      "_weapon": "magiostioik"
    }
  },
  {
    "from": "0xb5dd028A4008E818f0D75F4D12c6fa4c951Af28a",
    "topio": "0xb59201a8928083dda8b1da25f9f0cb5084421f2d9f8d4098395c55420980e6d9",
    "event": "Weapon",
    "args": {
      "0": "2",
      "1": "magiosword",
      "_index": "2",
      "_weapon": "magiosword"
    }
  },
  {
    "from": "0xb5dd028A4008E818f0D75F4D12c6fa4c951Af28a",
    "topio": "0xb59201a8928083dda8b1da25f9f0cb5084421f2d9f8d4098395c55420980e6d9",
    "event": "Weapon",
    "args": {
      "0": "3",
      "1": "katana",
      "_index": "3",
      "_weapon": "katana"
    }
  },
  {
    "from": "0xb5dd028A4008E818f0D75F4D12c6fa4c951Af28a",
    "topio": "0xb59201a8928083dda8b1da25f9f0cb5084421f2d9f8d4098395c55420980e6d9",
    "event": "Weapon",
    "args": {
      "0": "4",
      "1": "bow",
      "_index": "4",
      "_weapon": "bow"
    }
  }
]

```

## do-while

- 기본형태

초기값

do{

    처음 한번 실행 후

    반복할 내용

}while(조건문)

---

```
// SPDX-License-Identifier: GPL-3.0
pragma solidity >=0.8.0 <0.9.0;

contract do_while_text{
    event Weapon(uint256 indexed _index, string _weapon);

    string[] private WeaponList = ["sword","magicstick","magic sword","katana","bow"];
    function weaponDoWhile() public {
        uint256 i = 0;

        do{
            emit Weapon(i, WeaponList[i]);
            i++;
        }while(i < WeaponList.length);
    }
}
```