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Q1) What is structure? Explain with example.

Ans 1. Structure or structs in solidity allow us to create more complicated data types that have multiple properties.

2. We define our own type by using "struct" keyword.

3. These are useful for grouping related data.

4. They can be declared out of a contract and be imported in another contract.

5. Syntax:-

```
struct <structure-name> {
    <data-type> variable1;
    <data-type> variable2;
    :
}
```

6. Example:-

```
struct Book {
    string name;
    string writer;
    bool available;
    uint id;
}
```

Q2) Explain use of Arrays with example.

Ans 1. Arrays are data structures that store fix collection of element of the same data types in which each and every element has a specific location called index.

2. In solidity arrays can be fixed or dynamic sized.
3. Syntax :-
`<data-type> <array_name>[size] = <initialization>`
4. Example :-
 - i) Fixed Size Arrays :-
`int[5] memory data = [int(50), -63, -1, -2, -3];`
 - ii) Dynamic size arrays :-
`int[] data1 = [int(-60), -3, -2, -5, -6, 140];`

Q3) What is the use of fallback function?

Ans 1. The solidity fallback function is executed if none of the other functions match the function identifier or no data was provided with the function call.

2. It is used when none of the functions match the intended function calls.

3. For example :-

```
pragma solidity >= 0.5.0;
contract FallbackHelloWorld {
    string greeting;
    function() external {
        greeting = 'Alternate message'
    }
}
```

4. It has the following features :-

- It has no name nor arguments.
- It can be defined one per contract.
- It cannot return anything.
- It is required to be marked external.
- It is called when any non-existent function is called.