**BCDV 1026 -- Blockchain Platforms**

**Summer 2023**

**Substrate Contract – Guess Game**

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| Student Name | Student ID |
| Rutuja Dalvi | 101423188 |
| Rushikesh Chavan | 101423193 |

**Summary:**

The Guess Game contract is a simple game where players can guess the sum of two numbers set by the contract owner. The purpose of the contract is to provide an interactive and fun experience for players who want to test their guessing skills. Players submit their guesses, and the contract verifies whether the guess is correct or not. The contract owner can set new numbers for players to guess and also view the current guess number.

**Players:**

Contract Owner : Player 1, sets the number to be guessed  
Player 2 : These are the users of the smart contract. They interact with the contract to participate in the guessing game. Players need to have an Ethereum-like account (AccountId) to interact with the smart contract.

**Scenario:**

Player: Accesses the guessing game using their Ethereum-like account wallet as the security key.

**Actions:**

1.Player sets their guess number:

* Action: The player calls the function set\_guess\_num(guess\_num: u32) and provides their guess number as an argument.
* Purpose: Allows the player to set their guess number in the contract.

2.Player checks their guess:

* Action: The player calls the function check\_answer().
* Purpose: The contract verifies the player's guess and returns a message indicating whether the guess is correct or not.

3.Contract owner sets new numbers:

* Action: The contract owner calls the function set\_two\_number\_to\_add(value1: u32, value2: u32) and provides two new numbers.
* Purpose: The contract owner can update the two numbers that the players need to guess.

4.Contract owner views current guess number:

* Action: The contract owner calls the function get\_guess\_num().
* Purpose: The contract owner can retrieve the current guess number set for the players to guess.

5.Player checks the sum of two numbers (Read-only):

* Action: The player calls the function add().
* Purpose: The contract returns the sum of the two numbers (value1 and value2) but does not affect the game progress.

6.Player views the current two numbers to guess (Read-only):

* Action: The player calls the function get\_two\_number\_to\_add().
* Purpose: The contract returns the current two numbers (value1 and value2) set for the players to guess but does not affect the game progress.

Attached is the working demo video of the game and the program in rust, smart contract.