

JAVA MINI PROJECT

TITLE : CHOPSTICKS GAME

TEAM MEMBERS :

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Problem Statement:

To create an application in Java as a basic version of game "Chopsticks" using the functions provided by the GCC.

- The game starts with each player having one finger in both hands.
- When player 1 touches pplayer2 hands the number of finger in player 2 hands gets added up with the number of fingers in player 1's hands.
- This can happen in 4 ways
 1. Left with Left
 2. Left with Right
 3. Right with Right
 4. Right with Left
- When the number of fingers in a hand becomes 5 the player loses that hand. When a player loses both hands the other player wins.
- There's an option called divide where you can divide the number of fingers in both hands in any order you wish. For example 3-3 can be split as 2-4 (left hand-right hand).

Modules Involved:

1. **Initializing Names** : To store the names of the players
Input : Names of two players
Output: The names of two players are initiated
2. **GetP1**: Gives the current status of the player 1 i.e., the number of fingers in each left and right hand.
Output : Return the current status of player 1
3. **GetP2**: Gives the current status of the player 1 i.e., the number of fingers in each left and right hand.
Output : Return the current status of player 2
4. **UpdateP1**: Updates player 1's hands with the new number of fingers.
Input : New number of fingers in both hands
Output: The number of fingers of player1 is updated
5. **UpdateP2**: Updates player 2's hands with the new number of fingers.
Input : New number of fingers in Player 2 hands
Output: The number of fingers of player1 is updated
6. **Divide** : Divides the number of fingers in the way that the player wants.
Input : New number of fingers in both hands
Output: The number of fingers is updated if conditions are satisfied

Features of Java Used :

- Packages
- Exception handling

- Constructors

Design of the program:

```
Enter player 1 name: Thejas
Enter player 2 name: Vignesh

*****
Thejas's turn
*****

***** Vignesh's hand *****
Left: 1 Right: 1

***** Thejas's hand *****
Left: 1 Right: 1

-----
touch
[1]left with left
[2]left with right
[3]right with left
[4]right with right
[5]divide
your choice: |
```

When player 1 chooses option 2

```
*****
Vignesh's turn
*****

***** Thejas's hand *****
Left: 1 Right: 1

***** Vignesh's hand *****
Left: 2 Right: 1

-----
touch
[1]left with left
[2]left with right
[3]right with left
[4]right with right
[5]divide
your choice: |
```

When divide option is chosen

```
*****
Vignesh's turn
*****

***** Thejas's hand *****
Left: 1 Right: 1

***** Vignesh's hand *****
Left: 2 Right: 1

-----
touch
[1]left with left
[2]left with right
[3]right with left
[4]right with right
[5]divide
your choice: 5
Enter New Left: 3
Enter New Right: 0
```

```
***** Thejas's hand *****
Left: 1 Right: 1

***** Vignesh's hand *****
Left: 3 Right: 0

-----
touch
[1]left with left
[2]left with right
[3]right with left
[4]right with right
[5]divide
your choice: █
```