```python
boat_side = 'Right'
missionaries_on_right = 3
cannibals_on_right = 3
missionaries_on_left = 0
cannibals_on_left = 0

print('M=',missionaries_on_left, 'C=',cannibals_on_left, '|-----B|', 'M=',missionar

while True:

    missionaries = int(input('No of missionaries or enter 10 to quit : '))
    if missionaries == 10:
        print('You Quit. Game Over!')
        break
    cannibals = int(input('No of cannibals : '))

    if (missionaries + cannibals) != 1 and (missionaries + cannibals) != 2:
        print('Invalid Move')
        continue


    if boat_side == 'Right':
        if missionaries_on_right < missionaries or cannibals_on_right < cannibals :
            print('Invalid Move')

        missionaries_on_right = missionaries_on_right - missionaries
        cannibals_on_right = cannibals_on_right - cannibals

        missionaries_on_left += missionaries
        cannibals_on_left += cannibals

        print('M=' ,missionaries_on_left, 'C=',cannibals_on_left, '|B-----|', 'M=',

        boat_side = 'Left'

    else:
        if missionaries_on_left < missionaries or cannibals_on_left < cannibals:
            print('Invalid Move')

        missionaries_on_left = missionaries_on_left - missionaries
        cannibals_on_left = cannibals_on_left - cannibals

        missionaries_on_right += missionaries
        cannibals_on_right += cannibals

        print('M=',missionaries_on_left, 'C=',cannibals_on_left, '|-----B|', 'M=',m
        boat_side = 'Right'

    if (missionaries_on_right < cannibals_on_right and missionaries_on_right > 0) o
        print('You Loose')
        break

    if(missionaries_on_left == 3 and cannibals_on_left == 3):
        print('You win')
        break
```

```
M= 0 C= 0 |-----B| M= 3 C= 3
No of missionaries or enter 10 to quit : 1
No of cannibals : 1
M= 1 C= 1 |B-----| M= 2 C= 2
No of missionaries or enter 10 to quit : 1
No of cannibals : 0
M= 0 C= 1 |-----B| M= 3 C= 2
No of missionaries or enter 10 to quit : 0
No of cannibals : 2
M= 0 C= 3 |B-----| M= 3 C= 0
No of missionaries or enter 10 to quit : 0
No of cannibals : 1
M= 0 C= 2 |-----B| M= 3 C= 1
No of missionaries or enter 10 to quit : 2
No of cannibals : 0
M= 2 C= 2 |B-----| M= 1 C= 1
No of missionaries or enter 10 to quit : 1
No of cannibals : 1
M= 1 C= 1 |-----B| M= 2 C= 2
No of missionaries or enter 10 to quit : 2
No of cannibals : 0
M= 3 C= 1 |B-----| M= 0 C= 2
No of missionaries or enter 10 to quit : 0
No of cannibals : 1
M= 3 C= 0 |-----B| M= 0 C= 3
No of missionaries or enter 10 to quit : 0
No of cannibals : 2
M= 3 C= 2 |B-----| M= 0 C= 1
No of missionaries or enter 10 to quit : 0
No of cannibals : 1
M= 3 C= 1 |-----B| M= 0 C= 2
No of missionaries or enter 10 to quit : 0
No of cannibals : 2
M= 3 C= 3 |B-----| M= 0 C= 0
You win
```

In [ ]: