

```
1 # Python code to play 21 Number game
2 def nearestMultiple(num):
3     if num >= 4:
4         near = num + (4 - (num % 4))
5     else:
6         near = 4
7     return near
8
9
10 def lose1():
11     print("\n\nYOU LOSE !")
12     print("Better luck next time !")
13     exit(0)
14
15
16 def check(xyz):
17     i = 1
18     while i < len(xyz):
19         if (xyz[i] - xyz[i - 1]) != 1:
20             return False
21         i = i + 1
22     return True
23
24
25
26 def start1():
27     xyz = []
28     last = 0
29     while True:
30         print("Enter 'F' to take the first chance.")
31         print("Enter 'S' to take the second chance.")
32         chance = input('> ')
33
34         if chance == "F":
35             while True:
36                 if last == 20:
37                     lose1()
38                 else:
39                     print("\nYour Turn.")
40                     print("\nHow many numbers do you
wish to enter?")
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41         inp = int(input('> '))
42
43         if inp > 0 and inp <= 3:
44             comp = 4 - inp
45         else:
46             print("Wrong input. You are
disqualified from the game.")
47             lose1()
48
49             i, j = 1, 1
50
51             print("Now enter the values")
52             while i <= inp:
53                 a = input('> ')
54                 a = int(a)
55                 xyz.append(a)
56                 i = i + 1
57
58             last = xyz[-1]
59
60
61             if check(xyz) == True:
62                 if last == 21:
63                     lose1()
64
65                 else:
66                     # "Computer's turn."
67                     while j <= comp:
68                         xyz.append(last + j)
69                         j = j + 1
70                     print("Order of inputs
after computer's turn is: ")
71                     print(xyz)
72                     last = xyz[-1]
73                 else:
74                     print("\nYou did not input
consecutive integers.")
75                     lose1()
76
77             elif chance == "S":
78                 comp = 1

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79         last = 0
80         while last < 20:
81             j = 1
82             while j <= comp:
83                 xyz.append(last + j)
84                 j = j + 1
85             print("Order of inputs after
computer's turn is:")
86             print(xyz)
87             if xyz[-1] == 20:
88                 lose1()
89
90             else:
91                 print("\nYour turn.")
92                 print("\nHow many numbers do you
wish to enter?")
93                 inp = input('> ')
94                 inp = int(inp)
95                 if inp<0 or inp>3:
96                     print("Wrong input. You are
disqualified from the game.")
97                     lose1()
98                 i = 1
99                 print("Enter your values")
100                while i <= inp:
101                    xyz.append(int(input('> ')))
102                    i = i + 1
103                last = xyz[-1]
104                if check(xyz) == True:
105                    near = nearestMultiple(last)
106                    comp = near - last
107                    if comp == 4:
108                        comp = 3
109                    else:
110                        comp = comp
111                else:
112
113                    print("\nYou did not input
consecutive integers.")
114                    lose1()
115                print("\n\nCONGRATULATIONS !!!")

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```
116             print("YOU WON !")
117             exit(0)
118
119         else:
120             print("wrong choice")
121
122
123 print("WELCOME TO BAGRAM GAME")
124 print("*****")
125 print("\nPlayer 2 is Computer.")
126 print("Do you want to play the 21 BAGRAM game? (Yes
    / No)")
127 ans = input('> ')
128 if ans == 'Yes' or ans == 'yes':
129     start1()
130 else:
131     print("Do you want quit the game?(yes / no)")
132     nex = input('> ')
133     if nex == "yes":
134         print("You are quitting the game...")
135         exit(0)
136     elif nex == "no":
137         print("Continuing...")
138     else:
139         print("Wrong choice")
140
141
```