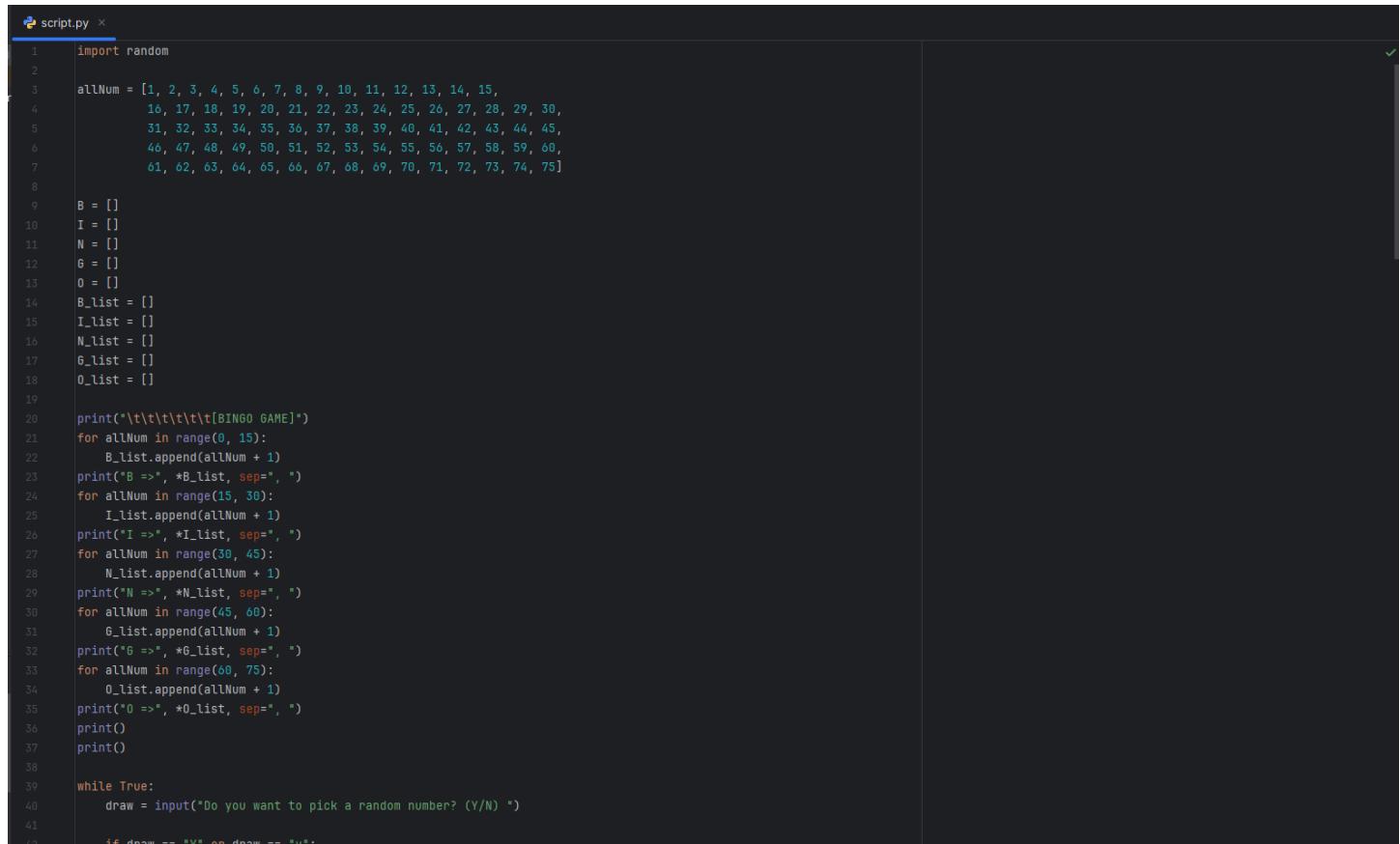


CASE STUDY 1 : BINGO GAME (LIST DATA TYPE)

PROGRAM SPECIFICATIONS: BINGO GAME

Make a Python Program that will emulate a BINGO game. This program will not show the Bingo pattern. The program will display all available numbers and the picked numbers per Letter randomly. The program will ask the user if more random numbers will be drawn. It will allow the user to draw random numbers from the available numbers. The drawing of numbers will be stopped when the user responds with “N” on the prompt **Do you want to pick another random number (Y/N)?**.

SOURCE CODE



```
script.py ×
1 import random
2
3 allNum = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15,
4           16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30,
5           31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45,
6           46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60,
7           61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75]
8
9 B = []
10 I = []
11 N = []
12 G = []
13 O = []
14 B_list = []
15 I_list = []
16 N_list = []
17 G_list = []
18 O_list = []
19
20 print("\t\t\t\t[BINGO GAME]")
21 for allNum in range(0, 15):
22     B_list.append(allNum + 1)
23 print(*B_list, sep=", ")
24 for allNum in range(15, 30):
25     I_list.append(allNum + 1)
26 print(*I_list, sep=", ")
27 for allNum in range(30, 45):
28     N_list.append(allNum + 1)
29 print(*N_list, sep=", ")
30 for allNum in range(45, 60):
31     G_list.append(allNum + 1)
32 print(*G_list, sep=", ")
33 for allNum in range(60, 75):
34     O_list.append(allNum + 1)
35 print(*O_list, sep=", ")
36 print()
37 print()
38
39 while True:
40     draw = input("Do you want to pick a random number? (Y/N) ")
41
42     if draw == "Y" or draw == "y":
```

```

script.py x
  ✓
  37 print()
  38
  39 while True:
  40     draw = input("Do you want to pick a random number? (Y/N) ")
  41
  42     if draw == "Y" or draw == "y":
  43         allNum = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15,
  44                 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30,
  45                 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45,
  46                 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60,
  47                 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75]
  48
  49     selectedNumber = random.choice(allNum)
  50     print()
  51     input("Press enter to continue...")
  52     print()
  53     if 0 <= selectedNumber <= 15:
  54         B.append(selectedNumber)
  55         if selectedNumber in B_list:
  56             B_list.remove(selectedNumber)
  57         else:
  58
  59             print("The same number has been picked. Please pick another number")
  60             draw = input("Do you want to pick a random number? (Y/N) ")
  61
  62             print("B = ", *B_list, "\nI = >", *I_list, "\nN = >", *N_list, "\nG = >", *G_list, "\nO = >", *O_list)
  63             print("\nSELECTED NUMBER: \nB = > " + str(B)[1:-1] + "\nI = > " + str(I)[1:-1] + "\nN = > " + str(N)[1:-1] + "\nG = > " + str(G)[1:-1] + "\nO = > " + str(O)[1:-1], sep=", ")
  64             print()
  65             print("RANDOM SELECTED NUMBER : B - " + str(selectedNumber))
  66
  67     if 16 <= selectedNumber <= 30:
  68         I.append(selectedNumber)
  69         if selectedNumber in I_list:
  70             I_list.remove(selectedNumber)
  71         else:
  72
  73             print("The same number has been picked. Please pick another number")
  74             draw = input("Do you want to pick a random number? (Y/N) ")
  75
  76             print("B = ", *B_list, "\nI = >", *I_list, "\nN = >", *N_list, "\nG = >", *G_list, "\nO = >", *O_list)
  77             print("\nSELECTED NUMBER: \nB = > " + str(B)[1:-1] + "\nI = > " + str(I)[1:-1] + "\nN = > " + str(N)[1:-1] + "\nG = > " + str(G)[1:-1] + "\nO = > " + str(O)[1:-1], sep=", ")
  78             print()
  79             print("RANDOM SELECTED NUMBER : I - " + str(selectedNumber))
  80
  81     if 31 <= selectedNumber <= 45:
  82         N.append(selectedNumber)
  83         if selectedNumber in N_list:
  84             N_list.remove(selectedNumber)
  85         else:
  86
  87             print("The same number has been picked. Please pick another number")
  88             draw = input("Do you want to pick a random number? (Y/N) ")
  89
  90             print("B = ", *B_list, "\nI = >", *I_list, "\nN = >", *N_list, "\nG = >", *G_list, "\nO = >", *O_list)
  91             print("\nSELECTED NUMBER: \nB = > " + str(B)[1:-1] + "\nI = > " + str(I)[1:-1] + "\nN = > " + str(N)[1:-1] + "\nG = > " + str(G)[1:-1] + "\nO = > " + str(O)[1:-1], sep=", ")
  92             print()
  93             print("RANDOM SELECTED NUMBER : N - " + str(selectedNumber))
  94
  95
  96     if 46 <= selectedNumber <= 60:
  97         G.append(selectedNumber)
  98         if selectedNumber in G_list:
  99             G_list.remove(selectedNumber)
  100        else:
  101
  102            print("The same number has been picked. Please pick another number")
  103            draw = input("Do you want to pick a random number? (Y/N) ")
  104
  105            print("B = ", *B_list, "\nI = >", *I_list, "\nN = >", *N_list, "\nG = >", *G_list, "\nO = >", *O_list)
  106            print("\nSELECTED NUMBER: \nB = > " + str(B)[1:-1] + "\nI = > " + str(I)[1:-1] + "\nN = > " + str(N)[1:-1] + "\nG = > " + str(G)[1:-1] + "\nO = > " + str(O)[1:-1], sep=", ")
  107            print()
  108            print("RANDOM SELECTED NUMBER : G - " + str(selectedNumber))
  109
  110     if 61 <= selectedNumber <= 75:
  111         O.append(selectedNumber)
  112         if selectedNumber in O_list:
  113             O_list.remove(selectedNumber)
  114         else:
  115
  116             print("The same number has been picked. Please pick another number")
  117             draw = input("Do you want to pick a random number? (Y/N) ")

```

```
script.py x
127
128     print()
129     print("This BINGO Game is Over")
130     draw2 = input("Do you want to play another BINGO Game? (Y/N) ")
131     if draw2 == "Y" or draw2 == "y":
132         print("\t\t\t\tSTART OF BINGO GAME")
133         B_list.clear()
134         I_list.clear()
135         N_list.clear()
136         G_list.clear()
137         O_list.clear()
138         B.clear()
139         I.clear()
140         N.clear()
141         G.clear()
142         O.clear()
143         print()
144         for allNum in range(0, 15):
145             B_list.append(allNum + 1)
146         print("B =>", *B_list, sep=", ")
147         for allNum in range(15, 30):
148             I_list.append(allNum + 1)
149         print("I =>", *I_list, sep=", ")
150         for allNum in range(30, 45):
151             N_list.append(allNum + 1)
152         print("N =>", *N_list, sep=", ")
153         for allNum in range(45, 60):
154             G_list.append(allNum + 1)
155         print("G =>", *G_list, sep=", ")
156         for allNum in range(60, 75):
157             O_list.append(allNum + 1)
158         print("O =>", *O_list, sep=", ")
159         print()
160         print()
161     else:
162         print()
163         print("Thank you for using the game!")
164         break
```

OUTPUT

Run  script 

  | 

C:\Users\Vincent\PyCharmMiscProject\.venv\Scripts\python.exe C:\Users\Vincent
[BINGO GAME]

B =>, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15

I =>, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30

N =>, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45

G =>, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60

O =>, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75

Do you want to pick a random number? (Y/N)

Run script ×

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```
C:\Users\Vincent\PyCharmMiscProject\.venv\Scripts\python.exe C:/Users/Vincent  
[BINGO GAME]  
B =>, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15  
I =>, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30  
N =>, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45  
G =>, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60  
O =>, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75
```

Do you want to pick a random number? (Y/N) Y

Press enter to continue...

```
B = > 1 2 3 4 5 7 8 9 10 11 12 13 14 15  
I = > 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30  
N = > 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45  
G = > 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60  
O = > 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75
```

SELECTED NUMBER:

```
B = > 6  
I = >  
N = >  
G = >  
O = >
```

RANDOM SELECTED NUMBER : B - 6

Do you want to pick a random number? (Y/N) |

Run script

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```
B = > 6, 11, 10, 13, 15  
I = >  
N = > 44, 34, 43, 40  
G = > 46, 49, 56  
O = > 71
```

```
RANDOM SELECTED NUMBER : G - 56  
Do you want to pick a random number? (Y/N) Y
```

Press enter to continue...

```
B = > 1 2 3 4 5 7 8 9 12 14  
I = > 16 17 18 19 20 21 22 23 25 26 27 28 29 30  
N = > 31 32 33 35 36 37 38 39 41 42 45  
G = > 47 48 50 51 52 53 54 55 57 58 59 60  
O = > 61 62 63 64 65 66 67 68 69 70 72 73 74 75
```

SELECTED NUMBER:

```
B = > 6, 11, 10, 13, 15  
I = > 24  
N = > 44, 34, 43, 40  
G = > 46, 49, 56  
O = > 71
```

```
RANDOM SELECTED NUMBER : I - 24  
BINGO!!!!!!
```

This BINGO Game is Over

```
Do you want to play another BINGO Game? (Y/N) Y  
START OF BINGO GAME
```

```
B =>, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15  
I =>, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30  
N =>, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45  
G =>, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60  
O =>, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75
```

```
Do you want to pick a random number? (Y/N)
```

Run  script ×

↶ | :

```
N = > 33 34 35 38 39 40 41 42 43 44  
G = > 46 47 48 49 50 51 52 53 54 55 56 57 59 60  
O = > 62 63 64 65 66 67 68 69 71 72 73 74
```

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⤷

SELECTED NUMBER:

⤶

⤸

B = >

⤶

I = > 29, 26

⤶

N = > 45, 31, 36, 32, 37

G = > 58

O = > 70, 75, 61

RANDOM SELECTED NUMBER : I - 26

Do you want to pick a random number? (Y/N) Y

Press enter to continue...

```
B = > 1 2 3 4 5 6 8 9 10 11 12 13 14 15  
I = > 16 17 18 19 20 21 22 23 24 25 27 28 30  
N = > 33 34 35 38 39 40 41 42 43 44  
G = > 46 47 48 49 50 51 52 53 54 55 56 57 59 60  
O = > 62 63 64 65 66 67 68 69 71 72 73 74
```

SELECTED NUMBER:

B = > 7

I = > 29, 26

N = > 45, 31, 36, 32, 37

G = > 58

O = > 70, 75, 61

RANDOM SELECTED NUMBER : B - 7

BINGO!!!!!!

This BINGO Game is Over

Do you want to play another BINGO Game? (Y/N) N

Thank you for using the game!

Process finished with exit code 0

VIDEO RECORDING EXPLAINING YOUR CASE STUDY!

- 1. In addition to the source code and sample run screenshots, you must provide a video recording explaining your source code.**
- 2. Create a video demonstration using your own voice for the narration. Avoid using AI-generated voices, such as 'Text-to-Speech' applications, as it is important to confirm that you are the one personally recording the video.**
- 3. The video duration is preferably from **10 to 20 minutes** only. If necessary, you can extend it by up to **30 minutes**.**
- 4. You need to explain your code and show the program output.**
- 5. Make sure to record your video in a quiet environment to minimize background noise and ensure clear audio quality.**
- 6. Do not use BACKGROUND MUSIC, as it may reduce the clarity of your narration.**
- 7. The video must be recorded in MP4 format.**
- 8. Save the video with the specified Filename format below. Replace X with your section number.**
Filename Format : Python_Case01_Bingo_DIT3X_Lastname_Firstname.mp4
Example Filename: Python_Case01_Bingo_DIT31_Andoy_Mastro.mp4
- 9. Upload your video to your Personal Google Drive and provide the shared link in the END PART of this Submission File (MS Word). Make sure to change the sharing settings to 'ANYONE WITH THE LINK' to ensure accessibility. Do not upload your video to YouTube.**

VIDEO LINK: https://drive.google.com/file/d/1SHt7PCyZQ_-O7OevUwB1JQ98tc-OYINR/view?usp=sharing