

Project Title:

"Dice".

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Group members:

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Role Distribution:

Research and documentation:
Kurbanova Ansari.

Code: Toktosunova Akbiike.

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Have a good
day!

Project goals:

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1

Acquire basic programming skills

2

Learn the basics of Python programming

3

The task of developing an application to run dice operations.

Description

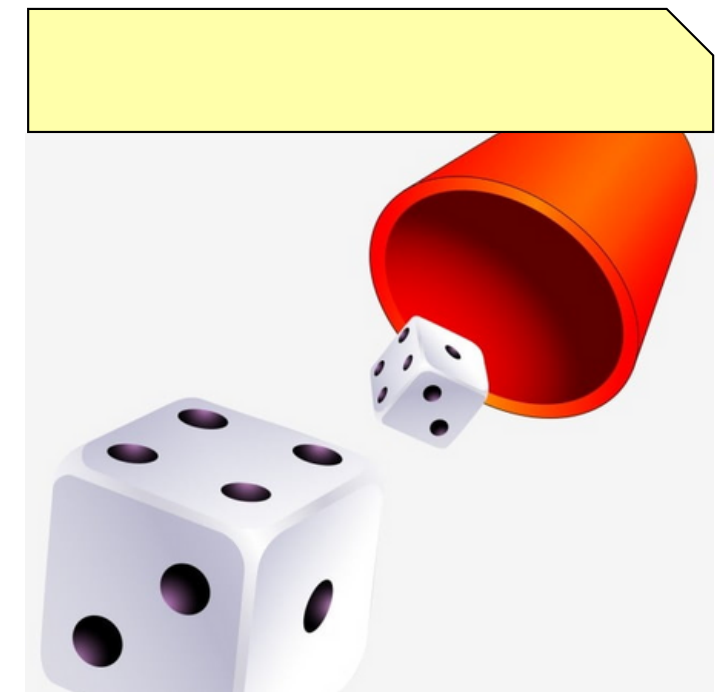


Dice—is one of the oldest games. The tools for the game are cubes (dice) in the amount of one to six.

The essence of the game consists in throwing dice and further counting points, the number of which determines the winner.



Image of dice



Planning

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We planned to develop a game in Python, which would include all the knowledge that we gained during this period.
Here's shown everything we used to write the code:

○ ○ ○ Action 1

- **import random**—using the import statement, we connected the module random. Random returns a random real number in the range from 0 to 1.

○ ○ ○ Action 2

- then we used **def** to define a function.
- **variables** – we used them to store some information in them.

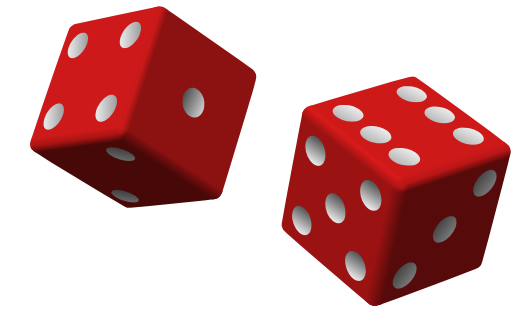
○ ○ ○ Action 3

- **while True**—the while statement takes an expression and executes the loop body while the expression evaluates to (boolean) "true".

○ ○ ○ Action 4

- We used **if** to make a condition.
- **elif**—the elif keyword is python's way of saying "if the previous conditions were not true, then try this condition".
- **else**—the else keyword catches anything which isn't caught by the preceding conditions.

Analysis



Dice Game.

If we consider a game with two players, Ann and Bob, in which each player has their own unbiased sixsided die. Ann has a red die, and Bob has a white die. They simultaneously roll their die, and note the number of the upper face, which we will consider their score.

If they both roll the same number, Bob wins the game. But if Ann scores higher than Bob, she wins, and if Bob scores higher than Ann, he wins.

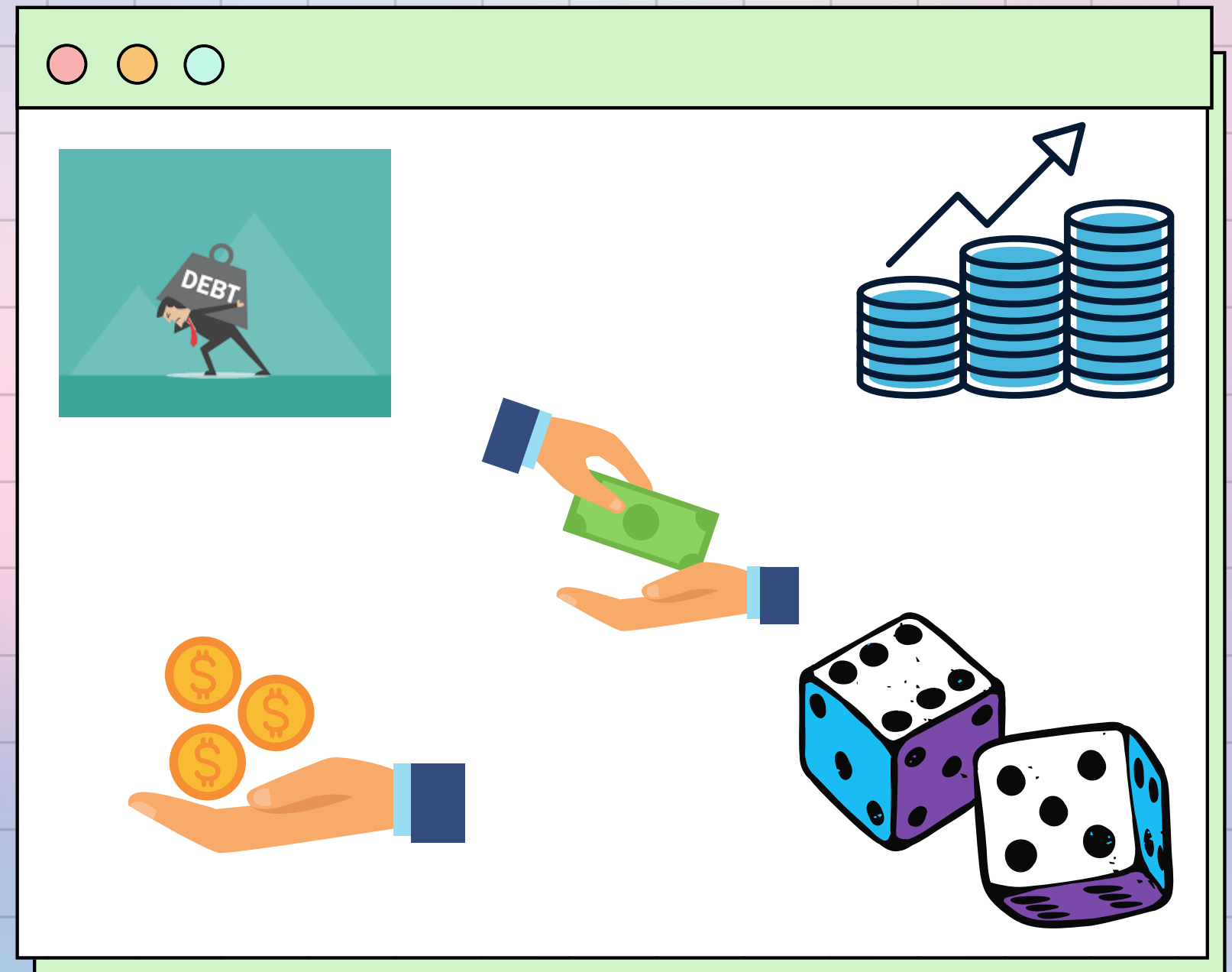
It is important to note that the probably of any unbiased six-sided dice landing on a given number . This is calculated by using the probability formula.

The dice it is six-sided($0 \leq n \leq 6$);therefore, the total of possibilities is six. Since there is only one instance of any given number, it follows that the probability of an unbiased dice landing on any given number is $P=1/6$.

Two Dice Total	Probability
2	2.78%
3	5.56%
4	8.33%
5	11.11%
6	13.89%
7	16.67%
8	13.89%
9	11.11%
10	8.33%
11	5.56%
12	2.78%
TOTAL	100.00%

Properties of cubes

- 1 Debt-take money on credit.
- 2 Cashbox-put money.
- 3 Rate-dice roll.



Code

```
1 import random
2
3 a = str(input(" player name:"))
4 b = ('computer')
5
6
7 def help():
8     print("\nCommand list")
9     print("z - Take dabt")
10    print("x - Put money ;")
11    print("c - dice roll;")
12    debt = 0
13    cashbox = 0
14    rate = int(0)
15
16    print("For a list of commands, enter w")
17
18 while True:
19     print("\nMoney: ", debt, "som")
20     print("rate: ", rate)
21     command = input("Enter command: ")
22     if command == 'w':
23         help()
24     elif command == 'z':
25         debt = input("Enter the loan amount: ")
26         debt = int(debt)
27         print("You have: ", debt, "som")
28     elif command == 'x':
29         rate = input("Put money: ")
30         rate = int(rate)
31         if rate > debt:
32             print("You don't have that much.")
33             rate = 0
34         else:
35             debt = debt - rate
36     elif command == 'c':
```

```
35         debt = debt - rate
36     elif command == 'c':
37         if rate == 0:
38             print("Put money.")
39         else:
40             val1 = random.randrange(1, 6)
41             val2 = random.randrange(1, 6)
42             sum1 = val1 + val2
43             print("\nDropped by", a, ': ', sum1)
44             val1 = random.randrange(1, 6)
45
46             val2 = random.randrange(1, 6)
47             sum2 = val1 + val2
48             print("Dropped by ", b, ': ', sum2)
49             if sum1 == sum2:
50                 print("Throw it again.")
51             elif sum1 > sum2:
52                 debt = debt + rate * 2
53                 rate = 0
54                 print("\nYou win!")
55             elif sum1 < sum2:
56                 rate = 0
57                 print("\nYou lose...")
58     else:
59         print("\nNot correct, Try again")
```


Testing

```
1 import random
2
3 a = str(input(" player name:"))
4 b = ('computer')
5
6
7 def help():
8     print("\nCommand list")
9     print("z - Take dabt")
10    print("x - Put money ;")
11    print("c - dice roll;")
12    debt = 0
13    cashbox = 0
14    rate = int(0)
15
16    print("For a list of commands, enter w")
17
18 while True:
19     print("\nMoney: ", debt, "som")
20     print("rate: ", rate)
21     command = input("Enter command: ")
22     if command == 'w':
23         help()
24     elif command == 'z':
25         debt = input("Enter the loan amount: ")
26         debt = int(debt)
27         print("You have: ", debt, "som")
28     elif command == 'x':
29         rate = input("Put money: ")
30         rate = int(rate)
31         if rate > debt:
32             print("You don't have that much.")
33         )
```

```
player name:Ansari
For a list of commands, enter w

Money:  0 som
rate:  0
Enter command: w

Command list
z - Take dabt
x - Put money ;
c - dice roll;

Money:  0 som
rate:  0
Enter command: z
Enter the loan amount: 15
You have:  15 som

Money:  15 som
rate:  0
Enter command: x
Put money: 12

Money:  3 som
rate:  12
Enter command: c

Dropped by Ansari : 7
Dropped by  computer : 6

You win!
```

How it was..

At first we thought about what project we should choose , we thought for a long time and finally decided to choose this game. Then we distributed the responsibilities. Everyone has chosen what they are good at. At first we did not succeed but we did not give up and finally finished this game. Thanks to this project, we have strengthened our knowledge in the field of programming and learned a lot of new things.



**THANK YOU FOR YOUR
ATTENTION!**