

Lucky Unicorn: Basic sub-problems (aka components)

- Print game instructions
- Ask player how much they want to put on their account
- store this information

Generate a random token donkey, unicorn, horse or zebra.

This is a basic problem so let's leave until later.

Adding or deducting values from player balance depending on chosen token and giving feed back to the user.

First

More significant problems so focus on these.

Second

Lucky Unicorn Subproblem:

First

How to randomly select a token: "Unicorn", "Horse", "Zebra", "Donkey".

(TRIAL DIFFERENT WAYS TO SOLVE THE SAME SUB PROBLEM)

①

Put the tokens in a list ["unicorn", --,]

Use the random module to select the token.

```
token_list = ["Unicorn", "Zebra", "Horse", "Donkey"]
```

```
chosen_token = random.choice(token_list)  
print(chosen_token)
```

③ Use random.random()

This will give a number (decimal) between 0 and one.

```
chosen_token = ""  
random_num = random.random()  
if random_num < 0.25:  
    chosen_token = "unicorn"  
elif random_num < 0.5  
    chosen_token = "horse"  
elif random_num < 0.75  
    chosen_token = "zebra"  
else:  
    chosen_token = "donkey"
```

② Use a list and use randint

```
token_list = [---]  
random_index = random.randint(0, 3)  
chosen_token = token_list[random_index]  
print(chosen_token)
```

④ Use 2 and have
chosen_token = ""

```
if random_index == 0:  
    chosen_token = "unicorn"  
elif random_index == 1  
    - - - -  
    elif  
    - - - -  
    else:  
    - - - -
```

Subproblem.

Second

Check what the token is and add or subtract money from user.

Program needs:

total-money of user.

to deduct \$1 for each play.

to check the result and then add/subtract money.

① total-money = 10
chosen-token = "Unicorn"
total-money -= 1
if chosen-token == "Unicorn":
 total-money += 5
elif chosen-token == "Zebra":
 total-money += 0.5
elif chosen-token == "Horse":
 total-money += 0.5
else:
 total-money += 0

print("You have a {} ".format(chosen-token))
print("You now have {} ".format(total-money))

② We could use a parallel list.

token = ["Unic.", "Zeb", "Hor", "Dork"]

value = [5, 0.5, 0.5, 0]

token_index = random.randint(0, 3)

total-money -= 1

total-money += value[token_index]

print("You have --- ")

print("You now have ---").