Programming for AI

BS(AI)-IV

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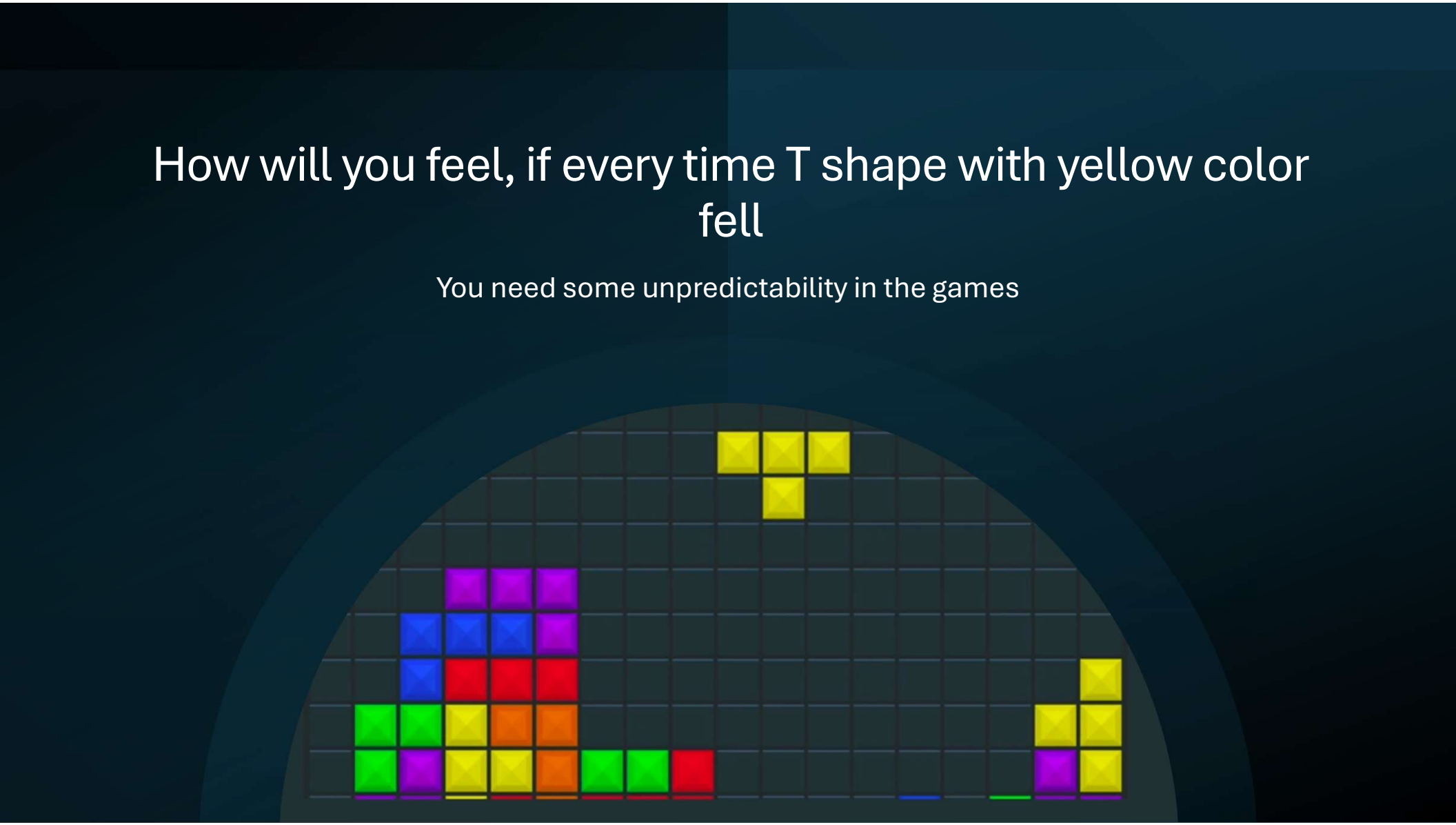
Useful Resource

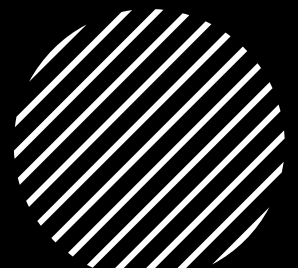
- askpython.com

How will you feel, if every time T shape with yellow color fell

You need some unpredictability in the games



Random Module



Allows to generate random numbers

import random

Random Integer

```
num=random.randint(10,20)
```

This will generate a random number between 10 and 20, including 10 and 20

Creating your own module

- Your can also create your own modules and use them

Random float

Random_float=random.random()

Always generates a floating number between 0 and 1

But how to expand the range, let's say I want a random float between 0 and 5

Solution

- Random_float=Random_float*5

Coin Toss

- Create a virtual coin toss program using Random Numbers
- 0 means head, 1 means tail

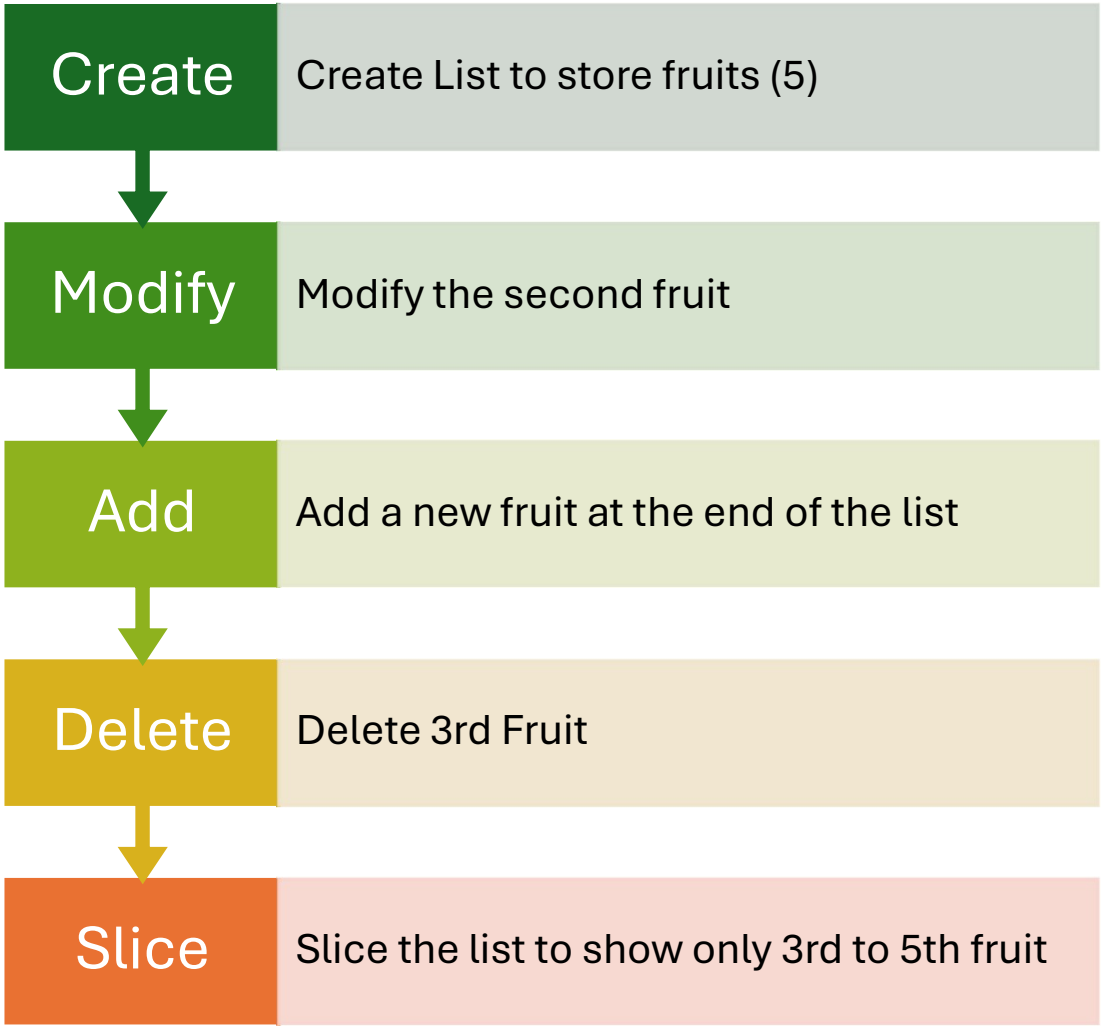
random.choice(list)

- Selects a random element from the sequence

List

- Data Structure
- Collection of Multiple Items (Heterogenous)
- Exp:
  - provinces_pakistan=[“Sindh” , ”Punjab”, “KPK”, “Balouchistan”]

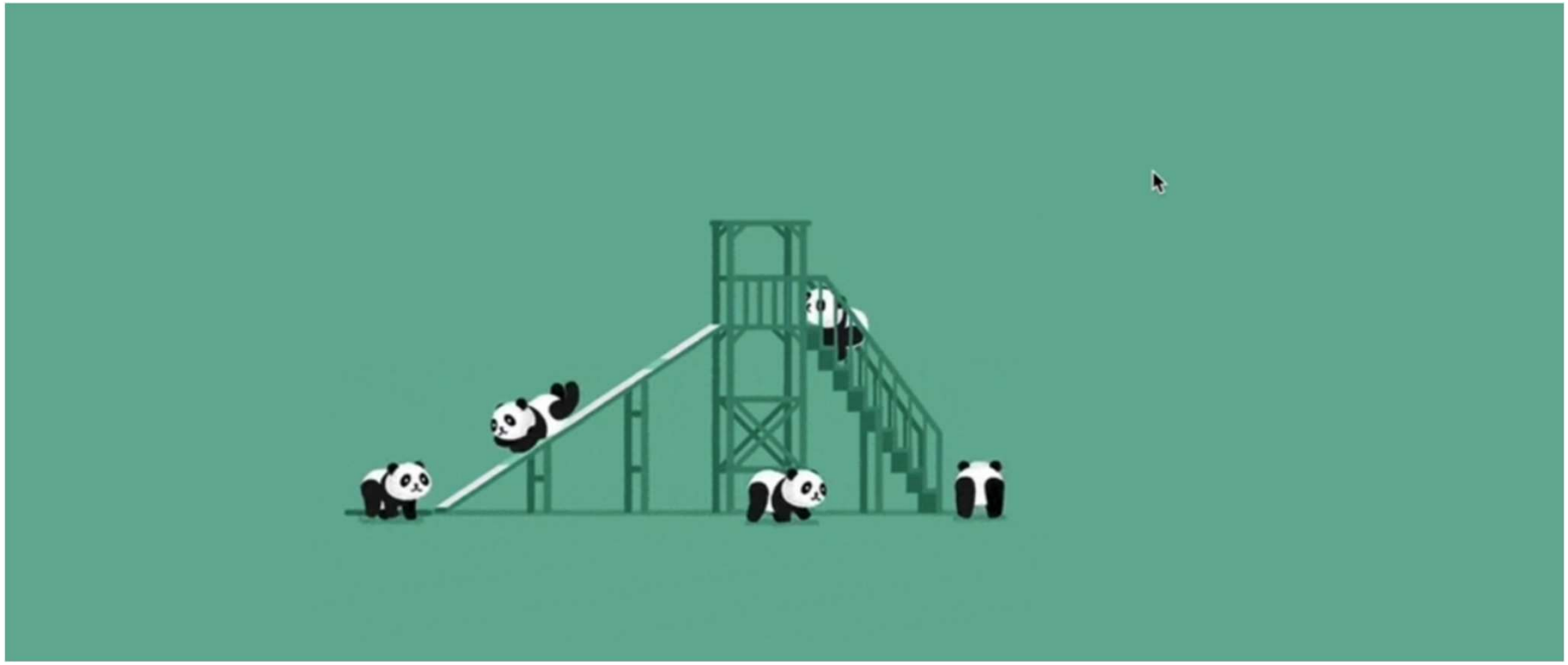
Let’s Recall the list operations



Operations on the list

- Adding items in the list
- Modifying the list items
- Accessing the items of the list
- Removing the items from the list
- Using different list functions
- Slicing the list

Loops-Introduction to Repetitions



For Loop

Example

```
fruits = ["Apple", "Peach", "Pear"]
for fruit in fruits:
  print(fruit)
  print(fruit + " Pie")
print(fruits)
```

range() function

Returns a range object

range(start,end,increment)