

Random Number Games in Python

Rock, Paper, Scissors

Create a game of Rock, Paper, Scissors using the **random** module:

```
import random

options = ("rock", "paper", "scissors")
running = True

while running:

    player = None
    computer = random.choice(options)

    while player not in options:
        player = input("Enter a choice (rock, paper,
scissors): ")

    print(f"Player: {player}")
    print(f"Computer: {computer}")

    if player == computer:
        print("It's a tie!")
    elif player == "rock" and computer == "scissors":
        print("You win!")
    elif player == "paper" and computer == "rock":
        print("You win!")
    elif player == "scissors" and computer == "paper":
        print("You win!")
    else:
        print("You lose!")

    if not input("Play again? (y/n): ").lower() == "y":
        running = False

print("Thanks for playing!")
```

Dice Roll – A more advanced example

```
import random

# • ┌─┐ | └─┘ <-- These are the unicode shapes needed
dice_art = {
    1: (
        "      ",
        "      ",
        "      ",
        "      ",
        "      "
    ),
    2: (
        "      ",
        "      ",
        "      ",
        "      ",
        "      "
    ),
    3: (
        "      ",
        "      ",
        "      ",
        "      ",
        "      "
    ),
    4: (
        "      ",
        "      ",
        "      ",
        "      ",
        "      "
    ),
    5: (
        "      ",
        "      ",
        "      ",
        "      ",
        "      "
    ),
    6: (
        "      ",
        "      ",
        "      ",
        "      ",
        "      "
    )
}

dice = []
total = 0
num_of_dice = int(input("How many dice?: "))

for die in range(num_of_dice):
    dice.append(random.randint(1, 6))

for die in range(num_of_dice):
    for line in dice_art.get(dice[die]):
        print(line)

#for line in range(5): # <-- advanced - displays dice inline
```

```
#     for die in dice:
#         print(dice_art.get(die)[line], end="")
#     print()

for die in dice:
    total += die
print(f"total: {total}")
```