■ Important Functions in Python's random Module

random.randint(a, b)

Used to generate a random integer within a specified range, inclusive of both the lower bound a and the upper bound b.

■ Use Case: Dice simulation, random ID generation, password creation

random.random()

Returns a random float number between 0.0 and 1.0.

■ Use Case: Simulations, generating probabilities, scaling random numbers

random.uniform(a, b)

Returns a random floating-point number N such that a <= N <= b.

■■ Use Case: Temperature simulators, financial modeling

random.choice(seq)

Returns a randomly selected element from a non-empty sequence like a list or string.

■ Use Case: Random selection in games, chatbot responses

random.choices(seq, k=n)

Returns a list of k elements selected from the sequence with replacement.

■ Use Case: Lottery numbers, weighted simulations

random.sample(seq, k)

Returns a list of k unique elements from the sequence without replacement.

■ Use Case: Quiz questions, raffle draw without repetition

random.shuffle(lst)

Shuffles the elements of the list in place.

■ Use Case: Card game shuffling, randomizing user order

random.seed(n)

Initializes the random number generator with a seed value, making results reproducible.

■ Use Case: Debugging, repeatable simulations