

game.py X

Launch

game.py > play_game

```
6 import random
7
8 def play_game():
9
10     print("Welcome to the 'Guess the Number' game!")
11
12     #While loop to run through the guessing game itself
13     while True:
14         number_to_guess = random.randint(1, 1024) # Random number selection
15         guesses = [] # List to store all guesses
16         attempts = 0 # Number of attempts
17         print("\nI have picked a number between 1 and 1024. Try to guess it!")
18
19         while True:
20             try:
21                 guess = int(input("Enter your guess: "))
22             except ValueError:
23                 print("Invalid input. Please enter an integer between 1 and 1024.")
24                 continue
25
26             if guess < 1 or guess > 1024:
27                 print("Out of range! Please enter a number between 1 and 1024.")
28                 continue
29
30             if guess in guesses:
31                 print("You already guessed that number! It won't count as an extra attempt.")
32                 continue
33
34             guesses.append(guess)
35             attempts += 1
36
37             if guess == number_to_guess:
```

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```
def play_game():

    if guess < 1 or guess > 1024:
        print("Out of range! Please enter a number between 1 and 1024.")
        continue

    if guess in guesses:
        print("You already guessed that number! It won't count as an extra attempt.")
        continue

    guesses.append(guess)
    attempts += 1

    if guess < number_to_guess:
        print("Too low! Try again.")
    elif guess > number_to_guess:
        print("Too high! Try again.")
    else:
        print(f"Congratulations! You guessed the number in {attempts} attempts.")
        break

    # Display all incorrect guesses / tracker
    print("Your incorrect guesses were:", [g for g in guesses if g != number_to_guess])

    # Ask if the user wants to play again
    play_again = input("Do you want to play again? (yes/no): ").strip().lower()
    if play_again != 'yes':
        print("Thanks for playing! Goodbye!")
        break

if __name__ == "__main__":
```

```
def main():
    print('Welcome to the "Guess the Number" game!')
```

I have picked a number between 1 and 1024. Try to guess it!

Enter your guess: 9

Too low! Try again.

Enter your guess: 25

Too low! Try again.

Enter your guess: 48

Too low! Try again.

Enter your guess: 98

Too high! Try again.

Enter your guess: 333

Too high! Try again.

Enter your guess: 222

Too high! Try again.

Enter your guess: 111

Too high! Try again.

Enter your guess: 90

Too high! Try again.

Enter your guess: 30

Too low! Try again.

Enter your guess: 60

Enter your guess: 62

Congratulations! You guessed the number in 14 attempts.

Your incorrect guesses were: [9, 25, 48, 98, 333, 222, 111, 90, 30, 60, 70, 64, 63]

Do you want to play again? (yes/no): no

Enter your guess: 62