Guess the Number: A Thrilling Game of Wit and Chance

Welcome to the exciting world of "Guess the Number," a captivating game that challenges your intuition and problem-solving skills. In this classic pastime, you'll embark on a journey to uncover a hidden number, testing your wits against the unknown and experiencing the thrill of the chase.

Unveiling the Random Number

Seeding the Random Number Generator

The game begins by seeding the random number generator, ensuring that the computer selects a unique and unpredictable number to keep you on your toes. This process leverages the current time to generate a truly random starting point for the game.

Generating the Secret Number

With the random number generator primed, the computer selects a number between 1 and 100, keeping it hidden from your view. This secret number becomes the target for your guessing, challenging you to decipher the computer's choice.

Maintaining the Mystery

As the game progresses, the computer steadfastly keeps the chosen number a secret, refusing to reveal its identity until you successfully guess it. This element of mystery heightens the excitement and suspense, driving you to explore the possibilities with each new attempt.

1 2 3

The Guessing Game

Entering Your Guess

The game invites you to input your guess, testing your intuition and deductive reasoning. With each attempt, you'll hone your strategy, ref ning your approach to narrow down the possibilities and get closer to the elusive solution.

Receiving Feedback

The computer responds to your guess, providing valuable feedback to guide your next move. If your guess is too low, you'll be informed, and if it's too high, you'll receive that information as well. This feedback loop helps you adjust your strategy and inch closer to the correct answer.

Persistence and Learning

As you continue to play, the game encourages you to learn from your mistakes and ref ne your approach. Each failed attempt is an opportunity to gain new insights, sharpen your problem-solving skills, and ultimately triumph over the challenge.

Celebrating Your Victory

1 **Guessing the Correct Number**

When you finally guess the correct number, the game rewards your persistence and strategic thinking. The computer will congratulate you on your achievement, acknowledging your sharp instincts and keen problem-solving abilities.

2 **Displaying the Number of Tries**

The game will also reveal the number of attempts it took you to arrive at the correct answer. This information serves as a badge of honor, showcasing your ability to efficiently navigate the guessing game and reach the desired outcome.

3 **Savoring the Moment**

The sense of accomplishment and triumph that comes with guessing the correct number is truly exhilarating. Take a moment to bask in the satisfaction of your victory, knowing that you've demonstrated your mental acuity and problem-solving prowess.

Mastering the Art of Guessing

Developing Strategies

As you delve deeper into the game, you'll discover various strategies to improve your chances of guessing the correct number. Experiment with different approaches, such as binary search, educated guesses, or even keeping track of previous attempts to narrow down the possibilities.

Enhancing Observation Skills

Pay close attention to the feedback provided by the computer after each guess. Analyze the patterns, trends, and nuances in the responses to gain valuable insights that will help you make more informed decisions in the subsequent rounds.

Embracing Persistence

Successful "Guess the Number" players understand the importance of perseverance. Even if your initial guesses are off the mark, maintain a positive attitude and continue ref ining your approach. Each failed attempt is an opportunity to learn and improve your skills.

Enjoying the Journey

Remember to savor the experience as you engage with the game. The thrill of the hunt, the satisfaction of solving the puzzle, and the sense of accomplishment when you guess the correct number are all part of the joy of playing "Guess the Number."

Exploring the Deeper Meaning

1

Probability and Chance

At its core, "Guess the Number" is a game that explores the concepts of probability and chance. By understanding the underlying principles that govern the random number generation, players can gain deeper insights into the nature of uncertainty and the art of making informed decisions.

2

Problem-Solving Strategies

The game also serves as a platform to hone problem-solving skills. As players navigate the guessing process, they must employ critical thinking, logical reasoning, and adaptability to converge on the correct solution. These skills are not just applicable to the game but also have real-world applications.

3

Perseverance and Growth

Ultimately, "Guess the Number" is a metaphor for the journey of personal growth and self-discovery. The game's challenges encourage players to embrace persistence, learn from their mistakes, and continuously ref ne their strategies, mirroring the process of personal development and the pursuit of excellence.

Embracing the Spirit of "Guess the Number"

Cultivating Curiosity	The game fosters a sense of curiosity, encouraging players to explore the unknown and challenge their assumptions. This curiosity-driven approach can be applied to various aspects of life, from personal growth to professional development.
Fostering Collaboration	While "Guess the Number" is primarily a solo endeavor, the game can also be enjoyed in a group setting, where players can share strategies, offer insights, and engage in friendly competition. This collaborative spirit can strengthen bonds and foster a sense of community.
Embracing the Journey	The true essence of "Guess the Number" lies not just in the f ﬁnal outcome, but in the process of getting there. By embracing the journey, players can f ﬁnd joy in the challenge, celebrate their progress, and develop a growth mindset that can be applied to various aspects of their lives.

Program to Guess the number

```cpp
#include <cstdlib>
#include <ctime>
#include <iostream>
using namespace std;

int main()
{

    cout << "\n\t\t\tWelcome to GuessTheNumber game!"
         << endl;
    cout << "You have to guess a number between 1 and 100. "
            "You'll have limited choices based on the "
            "level you choose. Good Luck!"
         << endl;

    while (true) {
        cout << "\nEnter the difficulty level: \n";
        cout << "1 for easy!\t";
        cout << "2 for medium!\t";
        cout << "3 for difficult!\t";
        cout << "0 for ending the game!\n" << endl;

        // select the level of difficulty
        int difficultyChoice;
        cout << "Enter the number: ";
        cin >> difficultyChoice;

        // generating the secret number
        srand(time(0));
        int secretNumber = 1 + (rand() % 100);
        int playerChoice;

        // Difficulty Level:Easy
        if (difficultyChoice == 1) {
            cout << "\nYou have 10 choices for finding the "
                    "secret number between 1 and 100.";
            int choicesLeft = 10;
            for (int i = 1; i <= 10; i++) {

                // prompting the player to guess the secret
                // number
                cout << "\n\nEnter the number: ";
                cin >> playerChoice;

                // determining if the playerChoice matches
                // the secret number
                if (playerChoice == secretNumber) {
                    cout << "Well played! You won, "
                         << playerChoice
                         << " is the secret number" << endl;
                    cout << "\t\t\t Thanks for playing...."
                         << endl;
                    cout << "Play the game again with "
                            "us!!\n\n"
                         << endl;
                    break;
                }
                else {
                    cout << "Nope, " << playerChoice
                         << " is not the right number\n";
                    if (playerChoice > secretNumber) {
```

```cpp
                    if (playerChoice == secretNumber) {
                        cout << "Well played! You won, "
                             << playerChoice
                             << " is the secret number" << endl;
                        cout << "\t\t\t Thanks for playing...."
                             << endl;
                        cout << "Play the game again with "
                                "us!!\n\n"
                             << endl;
                        break;
                    }
                    else {
                        cout << "Nope, " << playerChoice
                             << " is not the right number\n";
                        if (playerChoice > secretNumber) {
                            cout << "The secret number is "
                                    "smaller than the number "
                                    "you have chosen"
                                 << endl;
                        }
                        else {
                            cout << "The secret number is "
                                    "greater than the number "
                                    "you have chosen"
                                 << endl;
                        }
                        choicesLeft--;
                        cout << choicesLeft << " choices left. "
                             << endl;
                        if (choicesLeft == 0) {
                            cout << "You couldn't find the "
                                    "secret number, it was "
                                 << secretNumber
                                 << ", You lose!!\n\n";
                            cout << "Play the game again to "
                                    "win!!!\n\n";
                        }
                    }
                }
            }

            // Difficulty level : Medium
            else if (difficultyChoice == 2) {
                cout << "\nYou have 7 choices for finding the "
                        "secret number between 1 and 100.";
                int choicesLeft = 7;
                for (int i = 1; i <= 7; i++) {

                    // prompting the player to guess the secret
                    // number
                    cout << "\n\nEnter the number: ";
                    cin >> playerChoice;

                    // determining if the playerChoice matches
                    // the secret number
                    if (playerChoice == secretNumber) {
                        cout << "Well played! You won, "
                             << playerChoice
                             << " is the secret number" << endl;
                        cout << "\t\t\t Thanks for playing...."
                             << endl;
                        cout << "Play the game again with "
                                "us!!\n\n"
                             << endl;
                        break;
                    }
                    else {
                        cout << "Nope, " << playerChoice
                             << " is not the right number\n";
                        if (playerChoice > secretNumber) {
                            cout << "The secret number is "
                                    "smaller than the number "
                                    "you have chosen"
                                 << endl;
                        }
                        else {
                            cout << "The secret number is "
                                    "greater than the number "
                                    "you have chosen"
                                 << endl;
                        }
                        choicesLeft--;
                        cout << choicesLeft << " choices left. "
                             << endl;
                        if (choicesLeft == 0) {
                            cout << "You couldn't find the "
                                    "secret number, it was "
                                 << secretNumber
                                 << ", You lose!!\n\n";
                            cout << "Play the game again to "
                                    "win!!!\n\n";
```

```
                                "secret number, it was "
                            << secretNumber
                            << ", You lose!!\n\n";
                        cout << "Play the game again to "
                                "win!!!\n\n";
                    }
                }
            }
        }
        // Difficulty level : Medium
        else if (difficultyChoice == 3) {
            cout << "\nYou have 5 choices for finding the "
                    "secret number between 1 and 100.";
            int choicesLeft = 5;
            for (int i = 1; i <= 5; i++) {

                // prompting the player to guess the secret
                // number
                cout << "\n\nEnter the number: ";
                cin >> playerChoice;

                // determining if the playerChoice matches
                // the secret number
                if (playerChoice == secretNumber) {
                    cout << "Well played! You won, "
                         << playerChoice
                         << " is the secret number" << endl;
                    cout << "\t\t\t Thanks for playing...."
                         << endl;
                    cout << "Play the game again with "
                            "us!!\n\n"
                         << endl;
                    break;
                }
                else {
                    cout << "Nope, " << playerChoice
                         << " is not the right number\n";
                    if (playerChoice > secretNumber) {
                        cout << "The secret number is "
                                "smaller than the number "
                                "you have chosen"
                             << endl;
                    }
                    else {
                        cout << "The secret number is "
                                "greater than the number "
                                "you have chosen"
                             << endl;
                    }
                    choicesLeft--;
                    cout << choicesLeft << " choices left. "
                         << endl;
                    if (choicesLeft == 0) {
                        cout << "You couldn't find the "
                                "secret number, it was "
                             << secretNumber
                             << ", You lose!!\n\n";
                        cout << "Play the game again to "
                                "win!!!\n\n";
                    }
                }
            }
        }
        // To end the game
        else if (difficultyChoice == 0) {
            exit(0);
        }
        else {
            cout << "Wrong choice, Enter valid choice to "
                    "play the game! (0,1,2,3)"
                 << endl;
        }
    }
    return 0;
}
```

Output of the Program

```
                        Welcome to GuessTheNumber game!
You have to guess a number between 1 and 100. You'll have limited choices based on the level you choose. Good Luck!

Enter the difficulty level:
1 for easy!     2 for medium!   3 for difficult!        0 for ending the game!

Enter the number: 2

You have 7 choices for finding the secret number between 1 and 100.

Enter the number: 34
Nope, 34 is not the right number
The secret number is greater than the number you have chosen
6 choices left.


Enter the number: 78
Nope, 78 is not the right number
The secret number is greater than the number you have chosen
5 choices left.


Enter the number: 89
Nope, 89 is not the right number
The secret number is smaller than the number you have chosen
4 choices left.


Enter the number: 85
Nope, 85 is not the right number
The secret number is greater than the number you have chosen
3 choices left.


Enter the number: 88
Nope, 88 is not the right number
The secret number is smaller than the number you have chosen
2 choices left.


Enter the number: 86
Nope, 86 is not the right number
The secret number is greater than the number you have chosen
1 choices left.


Enter the number: 87
Well played! You won, 87 is the secret number
                        Thanks for playing....
Play the game again with us!!
```