

BATCH-4:Guess The Number

Problem statement:

Implement a game where the user guesses a random number generated by the computer, with hints provided.

Explanation:

The Guess the Number game is designed to help users practice basic logical thinking and problem-solving. The program generates a random number between 1 and 100. The player selects a difficulty level:

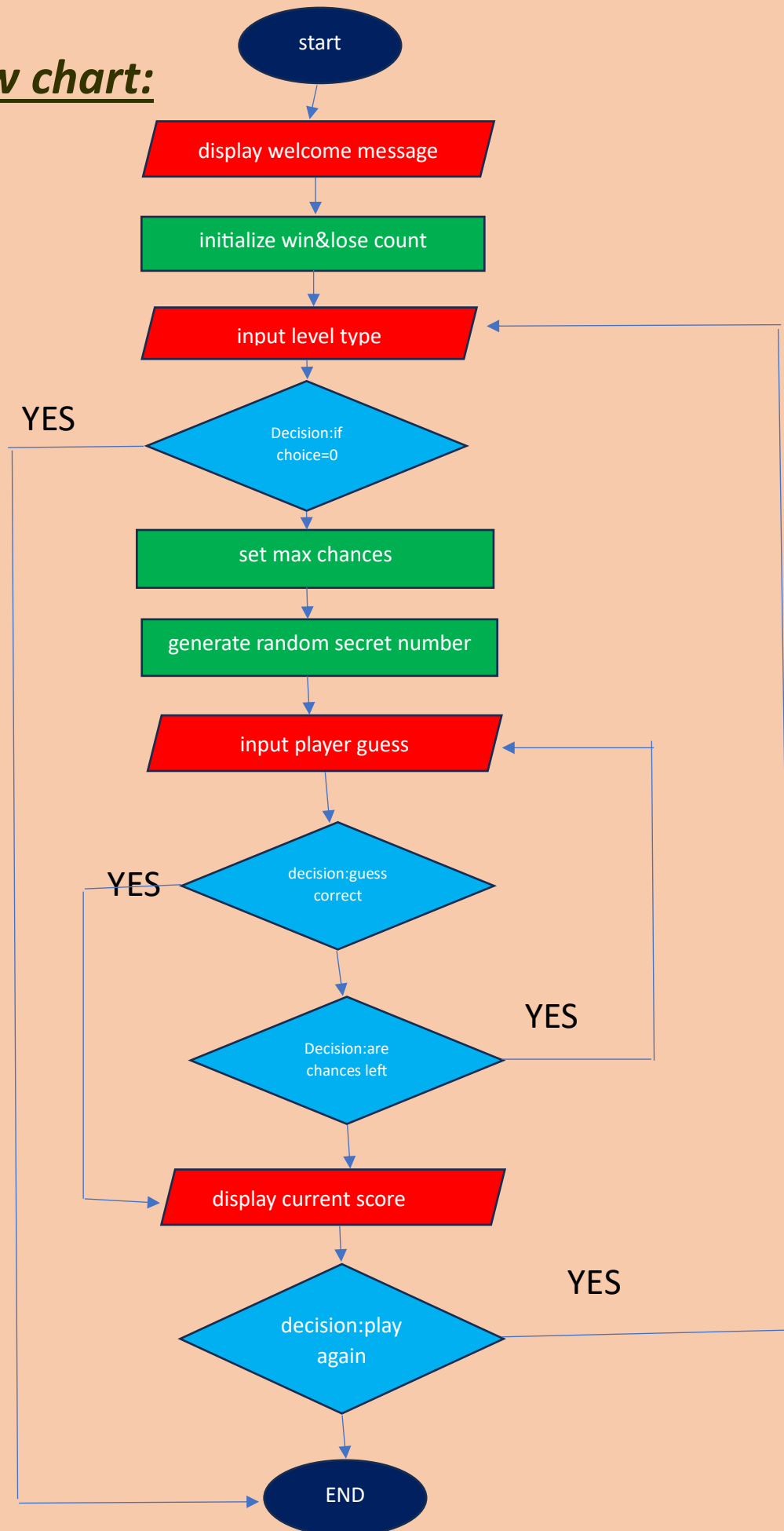
Easy: 7 chances

Medium: 5 chances

Hard: 3 chances

The game provides feedback after each incorrect guess, informing the player whether the correct number is higher or lower than the guessed number. The player's progress is tracked with counters for wins and losses. After each round, the user is given the option to play again or exit the game. The game ends if the player chooses to stop or when they lose all available attempts.

Flow chart:



output:

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WELCOME TO GUESSTHENUMBER GAME!

You have to guess a number between 1 to 100. Choices are given based on the level U choose.
Good Luck! 🍀

Enter the level which U want:
1 for easy 🍀
2 for medium 🍀
3 for difficult 🍀
0 for ending the game 🍀

Enter The Level: 1

You have 7 chances only

Enter the number: 50
Sorry 🍀 Try Again 50 is not the right number
The secret number is greater than the number you have chosen
6 chances left 💎

Enter the number: 70
Sorry 🍀 Try Again 70 is not the right number
The secret number is smaller than the number you have chosen
5 chances left 🍀

Enter the number: 60
Sorry 🍀 Try Again 60 is not the right number
The secret number is smaller than the number you have chosen
4 chances left 💎

Enter the number: 55
Sorry 🍀 Try Again 55 is not the right number
The secret number is greater than the number you have chosen
3 chances left 💎
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Enter the number: 57
Sorry 🍀 Try Again 57 is not the right number
The secret number is greater than the number you have chosen
2 chances left 💎

Enter the number: 59
Well played 🍀! You won 🍀! 59 is the secret number
Thanks for playing.... 🍀

Current Score:
Wins: 1
Losses: 0

Do you want to play again? (y/n): y

Enter the level which U want:
1 for easy 🍀
2 for medium 💎
3 for difficult 🍀
0 for ending the game 🍀

Enter The Level: 2

You have 5 chances only

Enter the number: 50
Sorry 🍀 Try Again 50 is not the right number
The secret number is smaller than the number you have chosen
4 chances left 🍀

Enter the number: 30
Sorry 🍀 Try Again 30 is not the right number
The secret number is greater than the number you have chosen
3 chances left 💎
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```
Enter the number: 45
Sorry 🍀 Try Again 45 is not the right number
The secret number is smaller than the number you have chosen
2 chances left 🍀

Enter the number: 35
Sorry 🍀 Try Again 35 is not the right number
The secret number is smaller than the number you have chosen
1 chances left 🍀

Enter the number: 33
Sorry 🍀 Try Again 33 is not the right number
The secret number is smaller than the number you have chosen
0 chances left 🍀
You couldn't find the secret number, it was 31. You lose 🍀!!

Current Score:
Wins: 1
Losses: 1

Do you want to play again? (y/n): y

Enter the level which U want:
1 for easy 🍀
2 for medium 🍀
3 for difficult 🍀
0 for ending the game 🍀

Enter The Level: 3

You have 3 chances only

Enter the number: 50
Sorry 🍀 Try Again 50 is not the right number
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```
Enter the number: 50
Sorry 🍀 Try Again 50 is not the right number
The secret number is greater than the number you have chosen
2 chances left 💎

Enter the number: 90
Sorry 🍀 Try Again 90 is not the right number
The secret number is smaller than the number you have chosen
1 chances left 🍀

Enter the number: 75
Sorry 🍀 Try Again 75 is not the right number
The secret number is greater than the number you have chosen
0 chances left 💎
You couldn't find the secret number, it was 88. You lose 🍀!!

Current Score:
Wins: 1
Losses: 2

Do you want to play again? (y/n): n

Final Score:
Wins: 1
Losses: 2
Thanks for playing! Goodbye!
```

conclusion:

The Guess the Number game demonstrates how simple interactive applications can be created using C++. By implementing different levels of difficulty and adding features such as score tracking and hints, the game becomes engaging and educational. This project showcases important programming concepts such as loops, conditionals, random number generation, and user input validation.

Reference:

- <https://www.ibm.com/docs/en/i/7.4?topic=functions-srand-set-seed-rand-function>
- <https://www.scaler.com/topics/number-guessing-game-cpp-project/>
- <https://www.geeksforgeeks.org/number-guessing-game-in-cpp-using-rand-function/>

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