

Logic Report: Guess the Number Game

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Python Exercise : Guess the Number Game

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The program has **4 functions**: **game_play()**,
game_finish(win),
new_game(game_start) and
give_hint(chance).

Line no. 112. - 1. Ask the user input (Y) to start the game. **The user's response will be validated.**

Line no. 115. - 2. After the user enters Y, the game is started as the **game_play()** function is activated by the user input Y.

While the **game_play() function** is running,

Line no. 18. - 3. The **random number** to be guessed is **created** between **0 and 1500** by the computer. And, everytime the player starts a new game, the random number will be changed.

As long as the chance is greater than zero and until the user reaches the last chance, the user can still play the game which means

Line no. 25 - 28. - 4. The user will see **the chances left** to play the game.

Line no. 37. - 5. The user will be asked to enter their guess number. **The user's response will be validated.**

Line no. 45 - 59. - 6. **For the win/lose result**, the user's number will be identified if the user's number and the computer number are the same or not.

If the numbers are the same, the win result is assigned as true and will be reserved to process in the **game_finished(win)** function.

Line no. 61. - 7. **Until the chance becomes zero, one chance is deduced** after the user has entered the number and their guess number has been processed.

Line no. 62 - 64. - 8. **If the user uses up all the chances and the chance becomes zero**, the user has **lost the game** as the result will be assigned as false to be processed in the **game_finished(win)** function.

At the last chance of the game, the give_hint(chance) function will start running.

Line no. 33. - 9. **At the final chance of the game**, the user will be asked if they want a hint. **The user's response will be validated.** The hint will show if the computer number is **even or odd**. **Based on their response**, the hint will be given or not.

After the game_play() function runned successfully, the **game_finished(win) function** will start running.

While the **game_finished(win) function** is running,

Line no. 67 - 73. - 10. The win/lose result will be printed **according to the last assignment in the win variable.**

After that, the **new_game(game_start)** function will start running.

Line no. 77 - 82. - 11. It will ask the user if they want to **start a new game** or if they want to exit. **The user's response will be validated.**

Based on the user's response, a new game will be started or not. **And, if the user chose to start again,**

Line no. 82 - 85. - 12. **All the functions:** game_play(), give_hint(chance), game_finish(win) and new_game(game_start) will run **again and again if the user's decision is to start again. But, if the user decided not to start again,** the game **will be fully ended** by exiting the program and will print the game has been ended.

After this **new_game(game_start)** function is called,

Line no. 18. - 12. The game chance is reset to 10 in the **game_play()** function by validating both the user input to start a new game (Y) and the chance being zero carried from the previous game.