Animal Fun Fact Project

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What the software does:

Once the program is compiled and running, the user should be met with a screen that displays a list of 10 different animals. Then there should be a line prompting the user to enter their choice of animal to learn about (1 to 10 only). The program should then output the appropriate fact about the user's selected animal. If the user enters invalid data, the program should output an error message and prompt them to enter it again. The list of animals continues to be displayed until the user enters -1 to terminate the program.

How I designed the software to meet the desired outcome:

◈ Expanding from the stubbing project, I altered the previous menu() function and turned it into an animals() function that displays the list of 10 different animals.

◈ Then utilizing the switch statement that was part of the stubbing component, I entered in each animal's respective fun fact and returned that fact that corresponded to the user's choice to the function.

◈ The fact is then displayed on the console.

How I designed the software to meet the desired outcome: (cont'd.)

◈ <u>**Full Details for Design:**</u>

◈ In the main() function, I created a variable called choice and called the getChoice() function to retrieve the user's choice of animal. The user's choice is stored in the choice variable.

◈ In the getChoice() function, I use a do-while loop to be able to display the list of animals for the user to choose from (call animals() function). Still inside the loop, the user is prompted to make their choice and enter it. Then I error-check the input that was entered to make sure it is 1-10 and not anything less, greater, (or zero) or something that is not a number using an if statement. The buffer gets cleared to prevent an infinite loop.

◈ Still inside the if statement, I made another if statement for if choice is -1 inputted by the user, we exit the loop because the user wanted to end the program. Otherwise, the program displays a message that the input was invalid and to enter again.

◈ A switch statement begins (stubbing portion) and displays all 10 animal facts, and depending on what the user's choice was, it will run that particular case # and display the fact using cout print statements. The do-while statement runs as long as the input != -1, and the function returns the choice.

◈ The function void animals() displays 10 different animal species in a list, and the function is called in the getChoice() function for the user to select from.

STATE DIAGRAM