Authentication and Monitoring System: Zoo Monitor System Program

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ALGORITHMS

The working program should do the following:

I.   Authentication System:

- Asks the user for a username.

- Asks the user for a password.

- Digest the password using a referenced digest five (MD5) hash.

- Check user credentials against the valid credentials in the credentials file.

- Limits failed password attempts to three before notifying the user and exiting the program.

- After successful user authentication, it gives the user access to the correct role dashboard.

- The system information stored in the role file should be displayed.

- Allows a user to log out.

- It stays on the dashboard screen after either a successful attempt has been made, the program is terminated after three unsuccessful password attempts have been made, or the user chooses to exit the program.

II.   Monitoring System:

- Asks a user if they want to monitor an animal, monitor a habitat, manage users, or exit.

- Display a list of animal/habitat options from either the animals or habitats file.

    - Asks the user to enter one of the options.

- Displays the monitoring information by finding the appropriate section in the file.

- Separates sections by the category and selection (such as "Animal - Lion" or "Habitat -Penguin")

- Uses a dialog box to alert the user if the monitor detects something out of the normal range (These are denoted in the files by a new line starting with *****. Do not display the asterisks in the dialog.)

- Allows a user to return to the original options (Main Dashboard)