# Authentication and Monitoring System: Zoo Monitor System Program

Poritosh Mridha

Southern New Hampshire University

# ALGORITHMS

I. Authentication System:

Prompts the user to enter a username.

Prompts the user to enter a password.

Hashes the password using the MD5 algorithm.

Validates the user's credentials against those in the credentials file.

Limits the number of incorrect password attempts to three, after which it notifies the user and exits the program.

Upon successful authentication, grants access to the appropriate role-specific dashboard.

Displays the information stored in the role file.

Provides an option for the user to log out.

Remains on the dashboard screen after a successful login, exits the program after three failed attempts, or allows the user to choose to exit.

II. Monitoring System:

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

Shows a list of animal or habitat options from the respective files.

Prompts the user to select an option.

Displays the relevant monitoring information by accessing the appropriate section in the file.

Organizes sections by category and selection (e.g., “Animal - Lion” or “Habitat - Penguin”).

Uses a dialog box to alert the user if any monitored conditions are abnormal (indicated by lines starting with \*\*\*\*\*; the asterisks are not shown in the dialog).

Allows the user to return to the main dashboard options.