**Shell Script Assignment**

1. Write a shell script that prompts the user to enter their name and age, then prints a greeting message with their name and a message indicating if they are a minor or an adult based on their age.
2. Create a script that takes a filename as input and checks if the file exists. If it does, it should display the file size and permissions; if not, it should create the file.
3. Write a script that prompts the user to enter a number and then prints whether the number is positive, negative, or zero. Repeat this process until the user enters 'q' to quit.
4. Develop a script that accepts a sentence as input and prints the number of words in it, along with the number of vowels and consonants.
5. Create a script that displays basic system information such as the operating system, kernel version, CPU information, and total memory.
6. Write a script that takes a directory as input and creates a compressed backup of that directory using tar and gzip.
7. Develop a script that adds a new user to the system by taking username, password, and home directory as input. Ensure the script checks for existing usernames and handles errors appropriately.
8. Create a script that displays the current IP address, subnet mask, and default gateway of the system.
9. Write a script that acts as a simple calculator. It should prompt the user to enter two numbers and an arithmetic operation (+, -, \*, /), then display the result.
10. Develop a script that logs the current date and time along with a custom message to a specified log file. Ensure the script handles log rotation and prevents the log file from growing too large.
11. Write a script that takes two filenames as input arguments and checks if the first file exists. If it does, the script should copy the contents of the first file to the second file; if not, it should display an error message.
12. Develop a script that prompts the user to enter a number between 1 and 10. If the number is within this range, the script should print a message indicating whether it's an even or odd number. If the number is outside this range, it should ask the user to try again.
13. Create a script that reads a sentence from the user and then prints each word of the sentence in reverse order.
14. Write a script that displays the current date and time, the logged-in users, and the system uptime.
15. Develop a script that takes a directory name as input and lists all files and subdirectories within that directory, along with their permissions.
16. Create a script that takes a directory as input and creates a timestamped backup of that directory by compressing it into a tarball.
17. Write a script that prompts the user to enter a username and password, then creates a new user account with the provided credentials.
18. Develop a script that displays the current IP address, hostname, and network interfaces of the system.
19. Create a script that prompts the user to enter two numbers and performs addition, subtraction, multiplication, and division on them, displaying the results.
20. Write a script that monitors a specified log file for any occurrences of a given keyword and sends an email notification if found.