

Report for OS Assignment 1:

Question 3:

In this question, we must create an arithmetic calculator using bash script for three functions: xor, compare, and product. Basic terminal commands used in the bash script:

- touch command to create a bash script
- chmod +x <filename> to grant permission to execute the script.
- nano for modification of the script.
- bash command to run the given bash script.
- mkdir <dir_name> : for creating a directory

In bash script, we first iterate through the input.txt line by line using while IFS=' ' read -r line.

Use of -r: avoids the backslash on the end of the first line, interpreted as a line-continuation character, and the two lines were merged into one.

Use of IFS: preserves the leading and trailing whitespaces in the line.

The numbers and operations are extracted from the line and converted to the required type, i.e., numbers to integer format and operation to string format. Using switch cases to check and run the type of operation mentioned and storing the final value in the result variable.

The result is then written to an output file in the Result directory using echo "\$output-line" >> Result/output.txt.