

**Lab report of CSE 310**

**Course Title: Operating System Lab**

**Course Code: CSE 310**

**Section: PC DA**

**Lab Report No: 01**

**Submitted to   
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**Task 01**

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| *#! /bin/bash*  echo "Enter digit number:"  read number  *for* ((n = 1; n<= 7; n++)); *do*  a=$(echo $number | cut -c $n)  echo "$a"  n=$(expr $n + 1)  *done*  echo " " |

**Output**

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**Task 02**

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| *#!/bin/bash*    tr ' ' '\n' < file.txt| sort | uniq -c | *while* read cnt num;  *do*  printf 'The number %s appears %s times in the file\n' "$num" "$cnt";  *done* |

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**Task 03**

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| *#! /bin/bash*  array=(7 9 6 2 1)  *if* [ "${#array[@]}" -lt 2 ]; *then*  echo Incoming array is not large enough >&2  exit 1  *fi*  largest=${array[0]}  secondGreatest='unset'  thirdGreatest='unset'  *for* ((i = 1; i < ${#array[@]}; i++)); *do*  *if* [[ ${array[i]} > $largest ]]; *then*  secondGreatest=$largest  largest=${array[i]}  *elif* ((${array[i]} != $largest)) && { [[ "$secondGreatest" = "unset" ]] || [[ ${array[i]} > $secondGreatest ]]; }; *then*  secondGreatest=${array[i]}  *elif*  ((${array[i]} != $largest)) && { [[ "$thirdGreatest" = "unset" ]] || [[ ${array[i]} > $thirdGreatest ]]; }  *then*  thirdGreatest=${array[i]}  *fi*  *done*  echo "SecondGreatest value = $secondGreatest"  echo "ThirdGreatest value = $thirdGreatest"  echo "The sum of the values are : $secondGreatest + $thirdGreatest " |

**Output**

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**Task 04**

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| *#! /bin/bash*  factorial() {  f=1  *for* ((k = 1; k <= $1; ++k)); *do*  f=$((f \* k))  *done*  fac\_result=$f  }  sum\_two\_factorials() {  factorial $1  tmp=$fac\_result  factorial $2  sum\_result=$(($tmp + $fac\_result))  }  sum\_two\_factorials 5 7  echo "The sum of 5! and 7! are : $sum\_result" |

**Output**

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**Task 05**

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| *#! /bin/bash*  echo "Enter a String"  *# Taking input from user*  read text  *# Counting words*  sentanceCount=$(echo -n "$text" | wc -w)  *# Counting characters*  alphabetsCount=$(echo -n "$text" | wc -c)  numberCount=$(echo -n "$text" | grep -o '[0-9]')  *# Counting special characters*  special=$(expr length "${text//[^\~!@#$&\*()]/}")  echo "Number of Words = $sentanceCount"  echo "Number of Characters = $alphabetsCount"  echo "Number of Special symbols = $special"  echo "Result of numerical value = $numberCount" |

**Output**

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