

Bahria University,

Karachi Campus



LAB EXPERIMENT NO.

5

LIST OF TASKS

TASK NO	OBJECTIVE
1	While utilizing the Linux commands studied so far, provide an example (<i>other than the one shown in this Lab</i>) of a combination of several Linux commands in which pipes are used more than once. Also provide a snapshot of the generated output.
2	Write C program to print all alphabets from a to z using while loop
3	Write a shell script that records the full path of all the files present within a directory into a record.txt file. Along with full path name, the script should also record the number of words, characters and lines within each file
4	Write a C program that takes values of two matrices of size $(m \times 1)$ and $(1 \times n)$ as input from the user. Multiply the above two matrixes and store the resulting $(m \times n)$ matrix in a 2D array. Display the contents of the first and second matrices and also the resulting matrix. Achieve alignment in the displayed content as much possible.

Submitted On:

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(Date: DD/MM/YY)

Task# 01:- While utilizing the Linux commands studied so far, provide an example (*other than the one shown in this Lab*) of a combination of several Linux commands in which pipes are used more than once. Also provide a snapshot of the generated output.

Solution:-

```
cat file2.txt | sort | uniq
```

Output:-

```
Biology
physics
chemistry
mathematics
chemistry
English
Science
Social Studies
Physics
English
```

```
Biology
chemistry
English
mathematics
physics
Physics
Science
Social Studies
```

Task # 02: Write C program to print all alphabets from a to z using while loop

Solution:-

```
int main()
{
    int ch = 97;

    printf("Alphabets from a - z are: \n");
    while(ch<=122)
    {
        printf("%c\t", ch);
        ch++;
    }
    printf("\n");
    return 0;
}
```

Output:-

```
Alphabets from a - z are:
a      b      c      d      e      f      g      h      i      j      k
l      m      n      o      p      q      r      s      t      u      v
w      x      y      z
```

Task#03:- Write a shell script that records the full path of all the files present within a directory into a record.txt file. Along with full path name, the script should also record the number of words, characters and lines within each file

Solution:-

ls -d "\$PWD"/* > listOfFiles.list

Output:-

```
/home/mustufa/task1/listOfFiles.list
/home/mustufa/task1/one.txt
/home/mustufa/task1/task.sh
/home/mustufa/task1/three.txt
/home/mustufa/task1/two.txt
```

Task# 04:- Write a C program that asks the user to provide an integer input in the main() function. The program would call a function even_odd() from the main() function, where the function even_odd() accepts an integer as an argument, determine and display if the passed integer is either even or odd.

Solution:-

```
void even_odd(int a) {
    if ( a % 2 == 0 ) {
        printf("it is even number\n");
    }
    else {
        printf("it is odd number\n");
    }
}

int main() {
    int num;
    printf("Enter a number\n");
    scanf("%d",&num);
    even_odd(num);
}
```

Output:-

```
Enter a number
100
it is even number
```