

# BSc (Hons) in Information Technology Year 1

Lab Sheet 9

### IT1010 – Introduction to Programming

Semester 1, 2022

### **Objectives:**

At the end of the class the students should be able to:

- Create a sequential access file to store and retrieve data.
- Store data into a sequential file.
- Retrieve data from a sequential file

#### **Exercise 1**

Following is a sample C program,

- To input five integer numbers from the keyboard
- Write them to a text file called numbers.txt
- Read the written numbers from the text file and display them
- i) Type the given C program in Dev C++.
- ii) Compile and run the C program.

```
#include <stdio.h>
int main (void)
{
     int i, no;
     FILE *cfPtr; //Create file pointer
     cfPtr = fopen("numbers.txt", "w"); //Create and open file for writing
     if ( cfPtr == NULL)
           printf("Fail to create file\n");
           return -1;
     for(i = 1; i <= 5; i++)
           printf("Enter integer number : ");
           scanf("%d", &no);
           fprintf(cfPtr, "%d\n", no);//write numbers to the file
     }
     fclose(cfPtr);
     cfPtr = fopen("numbers.txt", "r"); //Open file for reading
```



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```
fscanf(cfPtr, "%d", &no); //Read numbers from the file
while(!feof(cfPtr))
{
    printf("%d\t", no);
    fscanf(cfPtr, "%d", &no); //Read numbers from the file
}
fclose(cfPtr);
return 0;
```

#### **Exercise 2**

}

A supermarket needs to store the purchase details of each customer in a text file called *purchase.txt* . The purchase details consist of item ID, item name, quantity and unit price of the item. Write a C program to

i) Input the given purchase details from the keyboard and write the details to the text file.

Item ID	Name	Quantity (kg)	Price for 1kg
P001	Flour	5	100/=
P002	Dhal	2	180/=
P003	Sugar	4	140/=
P004	Rice	10	150/=

ii) Read the *purchase.txt* file to calculate and display the total bill payment in following format.

Item	Quantity	Unit Price	Price(Rs.)
Flour	5	100	500
Dhal	2	180	360
Sugar	4	140	560
Rice	10	150	1500
Total			2920



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### **Exercise 3**

Write a C program to do the following.

i) Create a text file called *transaction.txt* manually and type following transaction details of a customer excluding headings.

Here D – Deposit

W - Withdrawals

Transaction type	Transaction amount(Rs.)	
D	1000	
D	2000	
W	500	
D	1500	

- ii) The bank also needs to store account details of their customers in a text file called *account.txt*. The account details consist of account no., NIC no., customer name and account balance. Input the account details of four customers from the key board and write to the text file *account.txt*.
- iii) Ask customer to input account number from the keyboard and read the relevant account balance from **account.txt**
- iv) Read the transaction details from the *transaction.txt* file and perform them on the account mentioned in part (III)
- v) Display updated balance of the account.