IT1010 – Introduction to Programming   **Semester 1, 2021**

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.

```c
#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.