**Tutorial 10**

**Exercise 01**

//IT21143236

/\*C program to read data from a text file\*/

#include<stdio.h>

//main function

int main(void)

{

int input, num;

FILE \*ch;

ch = fopen("number.dat", "a+");//file open

if(ch == NULL)

{

printf("File cannot be open");

return -1;

}

printf("Enter number: ");//prompt

scanf("%d", &input);//read the value

fscanf(ch, "%d ", &num);//read the value from the file

while(!feof(ch))

{

if(input == num)//condition to check the whether number already exists

{

printf("Number already exists in the file\n");//prompt

break;

}

fscanf(ch, "%d ", &num);

}

fprintf(ch, " %d ", input);

fclose(ch);//file close

ch = fopen("number.dat", "r");//reading mode

fscanf(ch, "%d", &num);

while(!feof(ch))

{

printf("%d ", num);

fscanf(ch, "%d", &num);

}

fclose(ch);//file close

}

**Exercise 02**

//IT21143236

/\*C program to store the appointment details of their patients in a medical center\*/

#include<stdio.h>

//main function

int main(void)

{

char name[10], type;

int i, c = 0, s = 0, t = 0;

FILE \*p;

p = fopen("appointment.dat", "w");//file open

if(p == NULL)//to check whether file cannot be open

{

printf("File cannot be open");

return -1;

}

for(i = 0; i < 5; i++)

{

printf("Enter patient name: ");//prompt

scanf("%s", name);//read the name

printf("Enter appointment type(C, S, T): ");//prompt

scanf(" %c", &type);//read the type

fprintf(p, "%s\t%c\n", name, type);

}

fclose(p);//file close

p = fopen("appointment.dat", "r");//reading mode

if(p == NULL)//to check whether file cannot be open

{

printf("File cannot be open");

return -1;

}

fscanf(p, "%s\t%c", name, &type);

while(!feof(p))//to read until end of the file

{

if(type == 'C')

{

c++;

}

else if(type == 'S')

{

s++;

}

else if(type == 'T')

{

t++;

}

fscanf(p, "%s\t%c", name, &type);

}

printf("\nAppointment type\tNumber of Patients\n");

printf("Consulting%15d\nScanning%17d\nTesting%18d\n", c, s, t);

}//end main function