**Assignment number: 9**

**Subject: Object Oriented Programming**

**File Handling**

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**Problem Statement:**

Write a C++ program that creates an output file, writes information to it, closes the file and open it again as an input file and read the information from the file.

# Objective :

## **Assume appropriate data members and member function to accept required data & print data .**

# CONCEPT:

Switch case and File Handling.

# THEORY:

**Switch-case**

A switch statement allows a variable to be tested for equality against a list of values. Each value is called a case, and the variable being switched on is checked for each case.

The default case isn't always required and isn't compulsory.

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**Syntax:**

The syntax for a switch statement in C++ is as follows:

switch(expression){

case constant-expression :

statement(s);

break;

case constant-expression :

statement(s);

break;

default :

statement(s);

}

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**Example:**

#include <iostream>

using namespace std;

int main ()

{

string week = “A”;

switch(week)

{

case 'A' :

cout << "Monday!" << endl;

break;

case 'B' :

cout << "Tuesday!" << endl;

break;

case 'C' :

cout << "Wednesday!" << endl;

break;

case 'D' :

cout << "Thursday!" << endl;

break;

case 'F' :

cout << "Friday!" << endl;

break;

case 'G' :

cout << "Saturday!" << endl;

break;

default:

cout<<”Invalid entry”;

}

**File Handling**

It is possible in c++ using stream classes like “fstream” which are specially made for file handling.

I/O system handles files more like input output with console.

They use file stream interface between program and file for data manipulation.

Stream which feeds data to program is known as input stream and stream which receives data is known as output stream.

Streams sre included in programs using syntax for header files-

# include<fstream>

#include<ifstream>

#include<ofstream>

Depending upon the need of the user.

If both input and output operations are to be done then “fstream” is included.

If only input operation is to be performed then “ifstream” is included.

If only output operation is to be performed then “ofstream” is included.

Major functions related to files ae:

**Open(),Close(),read(),write(),seekg(),tellg(),getline()**,etc.

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ALGORITHM

1. Start.

2. Initialize the variables name, roll in class cal.

3. Create a class file

4. Declare and define functions accept(), read().

5. Create object of class file in the main function.

6. Display menu.

7. Call the functions of class accordingly.

8. Stop.

1. Start.

2. Open file using open() & write it in using << operator.

3. Display contents of file using eof() function.

4. Stop.

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**\_\_\_STATE TRANSITION DIAGRAM\_\_\_**

# Q0=Start.

Q1=Open file by calling open().

Q2=Write into file.

Q3=Ask for re-writing into file and follow Q1 & Q2.

Q4=Display contents of file.

Qe=End.

# ---------------------------------------------------------------------

# PROGRAM:

#include<iostream>

#include<fstream>

using namespace std;

class file

{

char name[50];

int roll;

public :

void accept()

{

ofstream fout;

fout.open("new.txt");

cout<<"\nENTER NAME\n";

ws(cin);

cin.getline(name,50);

fout<<name<<endl;

cout<<"\nENTER ROLL NO.\n";

cin>>roll;

fout<<roll<<endl;

fout.close(); }

void read()

{

ifstream fin;

int r;

char nm[100];

fin.open("new.txt");

fin.get(nm,100);

fin>>r;

cout<<"\nThis is to certify that Ms./Mr."<<nm<<" Roll number "<<r<<" has succesfully completed\nall his/her assignments in OBJECT ORIENTED PROGRAMMING LANGUAGE lab\n\n";

fin.close();

}

};

int main()

{

file obj;

obj.accept();

obj.read();

return 0;

}

**OUTPUT:**

ENTER NAME

ABC DEF GHIJ

ENTER ROLL NO.

12345

This is to certify that Ms./Mr.ABC DEF GHIJ Roll number 12345 has succesfully completed

all his/her assignments in OBJECT ORIENTED PROGRAMMING LANGUAGE lab

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# CONCLUSION:

Through this program we understand the implementation of switch case and to create a output file.

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