College Management System

A Mini Project Report

Submitted for

19EC381 – Programming Using C++ and Python
(Lab Component)

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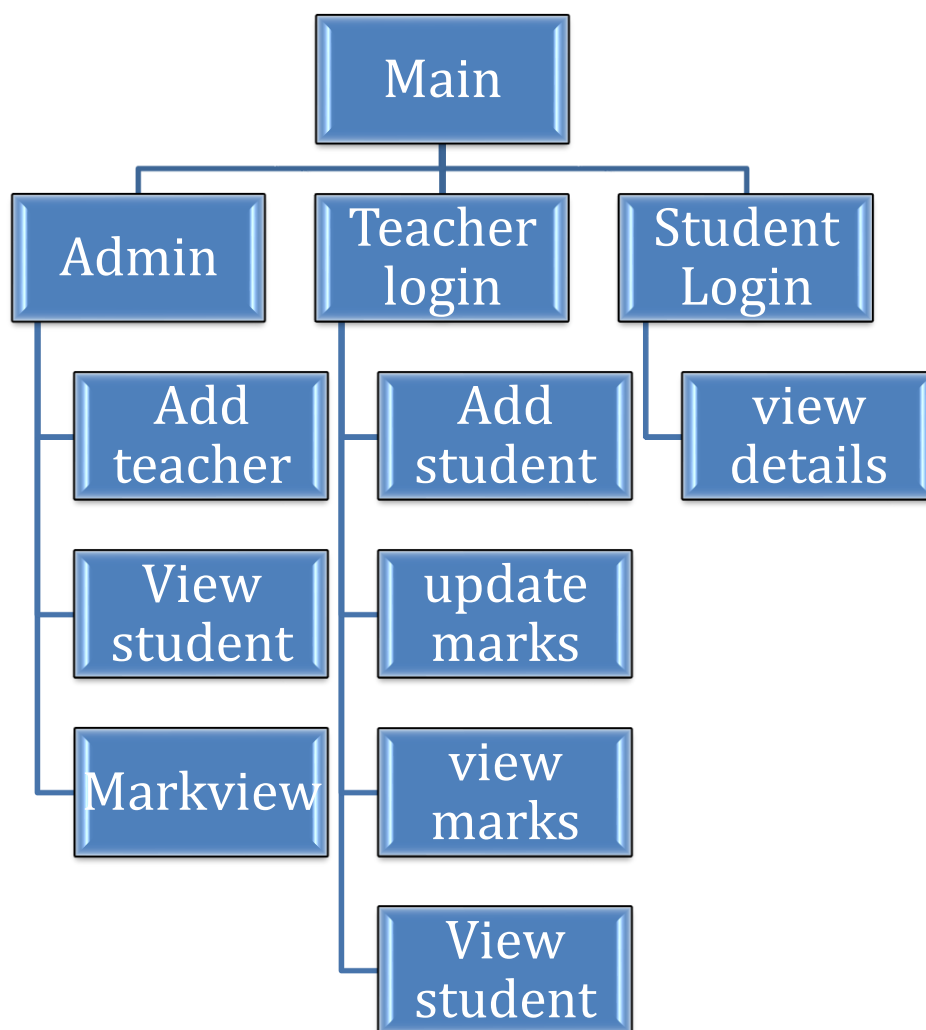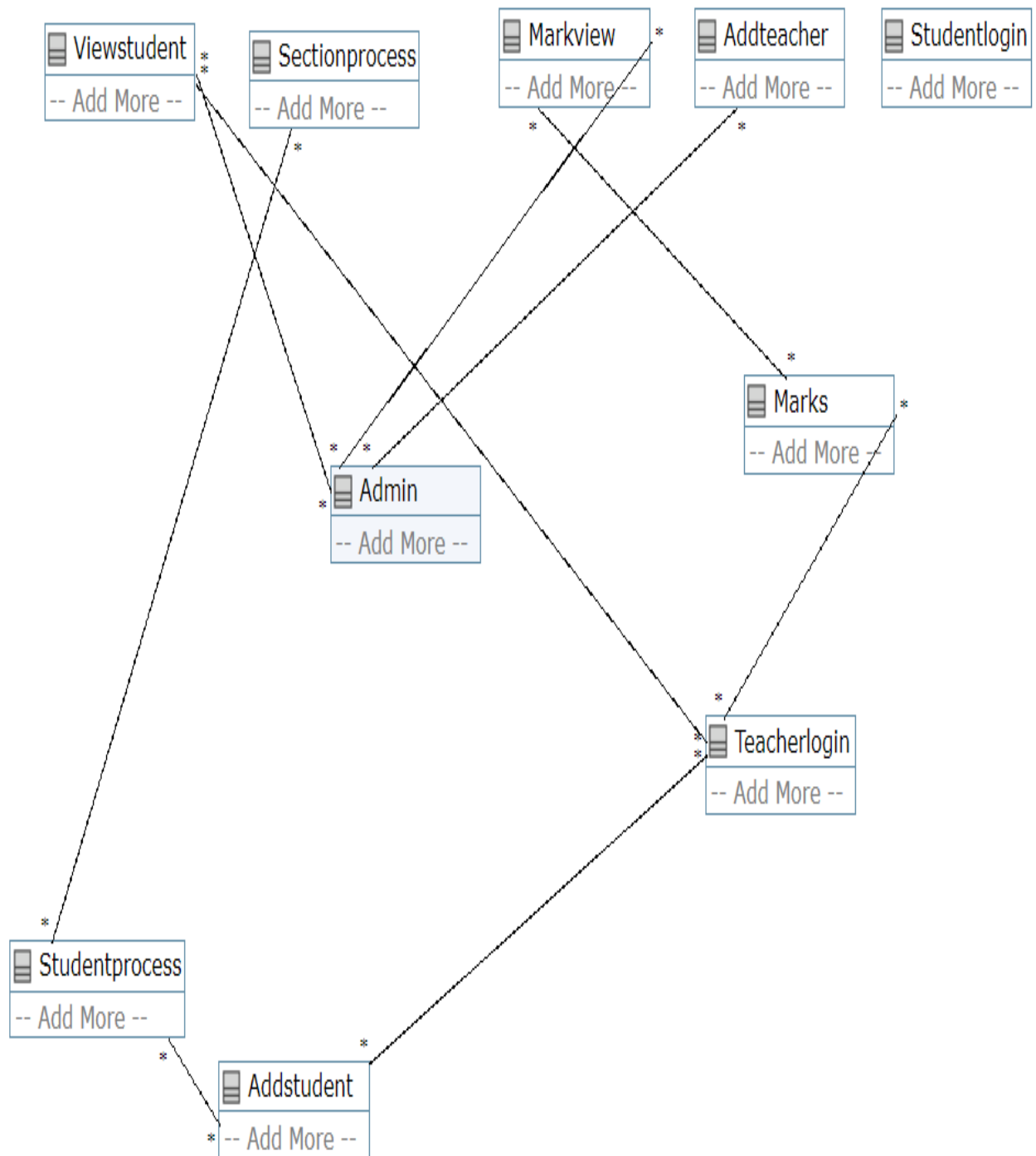
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Flow Diagram

Main

Admin — Teacher login — Student Login

Admin: Add teacher, View student, Markview

Teacher login: Add student, update marks, view marks, View student

Student Login: view details

Class Diagram:

Code:

```cpp
#include<iostream>
#include<fstream>
#include<string>
using namespace std;
class viewstudent{
        protected:
                char c[3000];
                string a,b,d;
        public:
                void detailss(){
                        stud:
                        cout<<"\nEnter the class name(IN CAPITAL LETTER):";
                        cin>>a;
                        cout<<"\nEnter the section(IN CAPITAL LETTER):";
                        cin>>b;
                        d=a+"-"+b+".txt";
                        ifstream f(d);
                        if(f.good()){
                        f.read((char*)&c,sizeof(c));
                        cout<<c;
                        f.close();
                        }
                        else
                        cout<<"\nClass not found try again";
                        goto stud;
                }
};
class markview {
protected:
    string a1, b, c1, d;
    char c[3000];
public:
    void viewmark() {
        markk:
        cout << "\nEnter the exam name:";
        cin >> c1;
        cout << "\nEnter the class:";
        cin >> a1;
        cout << "\nEnter the section:";
        cin >> b;
        d = a1 + b + c1 + ".txt";
        ifstream f(d);
                        if(f.good()){
                        f.read((char*)&c,sizeof(c));
                        cout<<c;
                        f.close();
                        }
                        else{
                        cout<<"\nClass not found try again";
                        goto markk;}
        }
};
class marks:public markview{
        protected:
                string f[3000];
```

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```cpp
        int n;
        string a,b,c,d;
        public:
        void mark2(){
                viewmark();
                }
        void mark(){
                cout<<"Enter the exam name:";
                cin>>c;
                cout<<"Enter the class:";
                cin>>a;
                cout<<"Enter the section:";
                cin>>b;
                d=a+b+c+".txt";
                if(a=="ece"||a=="ECE"){
                        if(b=="a"||b=="A"){
                            ifstream f1("ECE-A.txt");
                            ofstream f2(d);
                            int i=0;
                            while(!f1.eof()){
                                    f1>>f[i];
                                    i++;
                                    }
                            cout<<"Enter the number of subjects:";
                            cin>>n;
                            int m[n];
                            for(int j=0;j<i-1;j=j+5){
                                cout<<"Enter the marks for   "<<f[j];
                                f2<<f[j];
                                for(int k=0;k<n;k++){
                                    cout<<"\nEnter the marks for subject
"<<k+1<<":";

                                    cin>>m[k];
                                    f2<<"\t"<<m[k];
                                            }
                                    f2<<"\n";
                                    }
                            f1.close();
                            f2.close();
                            }
                        else if(b=="b"||b=="B"){
                            ifstream f1("ECE-B.txt");
                            ofstream f2(d);
                            int i=0;
                            while(!f1.eof()){
                                    f1>>f[i];
                                     i++;
                                     }
                                cout<<"Enter the number of subjects:";
                                cin>>n;
                                int m[n];
                                for(int j=0;j<i-1;j=j+5){
                                    cout<<"Enter the marks for   "<<f[j];
                                    f2<<f[j];
                                    for(int k=0;k<n;k++){
                                     cout<<"\nEnter the marks for subject
"<<k+1<<":";
```

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```cpp
                                cin>>m[k];
                                f2<<"\t"<<m[k];
                                            }
                                    f2<<"\n";
                                    }
                                    f1.close();
                                    f2.close();
                    }
                    else if(b=="c"||b=="C"){
                            ifstream f1("ECE-C.txt");
                            ofstream f2(d);
                            int i=0;
                            while(!f1.eof()){
                              f1>>f[i];
                              i++;
                      }
                cout<<"Enter the number of subjects:";
                cin>>n;
                int m[n];
                for(int j=0;j<i-1;j=j+5){
                 cout<<"Enter the marks for  "<<f[j];
                 f2<<f[j];
                 for(int k=0;k<n;k++){
                  cout<<"\nEnter the marks for subject
"<<k+1<<":";

                  cin>>m[k];
                            f2<<"\t"<<m[k];
                                    }
                                    f2<<"\n";
                        }
                        f1.close();
                        f2.close();
                    }
                    else{
                    cout<<"Invalid section";
                    cout<<"\nPlease try again";
                }
    }
}
else if(a=="eee"||a=="EEE"){
        if(b=="a"||b=="A"){
                ifstream f1("EEE-A.txt");
                ofstream f2(d);
                 int i=0;
                 while(!f1.eof()){
                   f1>>f[i];
                 i++;
                        }
                cout<<"Enter the number of subjects:";
                cin>>n;
                int m[n];
                for(int j=0;j<i-1;j=j+5){
                   cout<<"Enter the marks for  "<<f[j];
                   f2<<f[j];
                   for(int k=0;k<n;k++){
                          cout<<"\nEnter the marks for
subject "<<k+1<<":";
```

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```cpp
                                                cin>>m[k];
                                                f2<<"\t"<<m[k];
                                                        }
                                                        f2<<"\n";
                                                }
                                                f1.close();
                                                f2.close();
                                        }
                                else if(b=="b"||b=="B"){
                                        ifstream f1("EEE-B.txt");
                        ofstream f2(d);
                        int i=0;
                        while(!f1.eof()){
                                        f1>>f[i];
                                        i++;
                                }
                                cout<<"Enter the number of subjects:";
                                cin>>n;
                                int m[n];
                                for(int j=0;j<i-1;j=j+5){
                                    cout<<"Enter the marks for   "<<f[j];
                                    f2<<f[j];
                                    for(int k=0;k<n;k++){
                                                cout<<"\nEnter the marks for
subject "<<k+1<<":";

                                                cin>>m[k];
                                                f2<<"\t"<<m[k];
                                                        }
                                                        f2<<"\n";
                                                }
                                                f1.close();
                                                f2.close();
                                        }
                                        else{
                                        cout<<"Invalid section";
                                        cout<<"\nPlease try again";
                            }
}
else if(a=="mech"||a=="MECH"){
        if(b=="a"||b=="A"){
                                ifstream f1("MECH-A.txt");
                                ofstream f2(d);
                                int i=0;
                                while(!f1.eof()){
                                        f1>>f[i];
                                        i++;
                                }
                                cout<<"Enter the number of subjects:";
                                cin>>n;
                                int m[n];
                                for(int j=0;j<i-1;j=j+5){
                                    cout<<"Enter the marks for   "<<f[j];
                                    f2<<f[j];
                                    for(int k=0;k<n;k++){
                                                cout<<"\nEnter the marks for
subject "<<k+1<<":";

                                                cin>>m[k];
```

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```cpp
                                        f2<<"\t"<<m[k];
                                                }
                                                f2<<"\n";
                                        }
                                        f1.close();
                                        f2.close();
                                }
                            else if(b=="b"||b=="B"){
                                    ifstream f1("MECH-B.txt");
                ofstream f2(d);
                int i=0;
                while(!f1.eof()){
                            f1>>f[i];
                            i++;
                    }
                    cout<<"Enter the number of subjects:";
                    cin>>n;
                    int m[n];
                    for(int j=0;j<i-1;j=j+5){
                        cout<<"Enter the marks for  "<<f[j];
                        f2<<f[j];
                        for(int k=0;k<n;k++){
                                cout<<"\nEnter the marks for
subject "<<k+1<<":";
                                cin>>m[k];
                                f2<<"\t"<<m[k];
                                        }
                                        f2<<"\n";
                                }
                                f1.close();
                                f2.close();
                        }
                        else{
                        cout<<"Invalid section";
                        cout<<"\nPlease try again";
                    }
}
else if(a=="it"||a=="IT"){
        if(b=="a"||b=="A"){
                        ifstream f1("IT-A.txt");
                        ofstream f2(d);
                        int i=0;
                        while(!f1.eof()){
                                    f1>>f[i];
                                    i++;
                            }
                            cout<<"Enter the number of subjects:";
                            cin>>n;
                            int m[n];
                            for(int j=0;j<i-1;j=j+5){
                                cout<<"Enter the marks for  "<<f[j];
                                f2<<f[j];
                                for(int k=0;k<n;k++){
                                        cout<<"\nEnter the marks for
subject "<<k+1<<":";
                                        cin>>m[k];
                                        f2<<"\t"<<m[k];
```

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```cpp
                                                      }
                                                      f2<<"\n";
                                              }
                                              f1.close();
                                              f2.close();
                                      }
                                      else if(b=="b"||b=="B"){
                                              ifstream f1("IT.txt");
                    ofstream f2(d);
                    int i=0;
                    while(!f1.eof()){
                                      f1>>f[i];
                                      i++;
                            }
                            cout<<"Enter the number of subjects:";
                            cin>>n;
                            int m[n];
                            for(int j=0;j<i-1;j=j+5){
                                cout<<"Enter the marks for   "<<f[j];
                                f2<<f[j];
                                for(int k=0;k<n;k++){
                                              cout<<"\nEnter the marks for
subject "<<k+1<<":";

                                              cin>>m[k];
                                              f2<<"\t"<<m[k];
                                                      }
                                              f2<<"\n";
                                      }
                                      f1.close();
                                      f2.close();
                            }
                            else{
                            cout<<"Invalid section";
                            cout<<"\nPlease try again";
                      }
}
else if(a=="cse"||a=="CSE"){
                                      if(b=="a"||b=="A"){
                            ifstream f1("CSE-A.txt");
                            ofstream f2(d);
                            int i=0;
                            while(!f1.eof()){
                                      f1>>f[i];
                                      i++;
                            }
                            cout<<"Enter the number of subjects:";
                            cin>>n;
                            int m[n];
                            for(int j=0;j<i-1;j=j+5){
                                cout<<"Enter the marks for   "<<f[j];
                                f2<<f[j];
                                for(int k=0;k<n;k++){
                                              cout<<"\nEnter the marks for
subject "<<k+1<<":";

                                              cin>>m[k];
                                              f2<<"\t"<<m[k];
                                                      }
```

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```cpp
                                                   f2<<"\n";
                                           }
                                           f1.close();
                                           f2.close();
                                       }
                                   else if(b=="b"||b=="B"){
                                           ifstream f1("CSE-B.txt");
                        ofstream f2(d);
                        int i=0;
                        while(!f1.eof()){
                                   f1>>f[i];
                                   i++;
                               }
                           cout<<"Enter the number of subjects:";
                           cin>>n;
                           int m[n];
                           for(int j=0;j<i-1;j=j+5){
                               cout<<"Enter the marks for  "<<f[j];
                               f2<<f[j];
                               for(int k=0;k<n;k++){
                                       cout<<"\nEnter the marks for
subject "<<k+1<<":";
                                       cin>>m[k];
                                       f2<<"\t"<<m[k];
                                               }
                                               f2<<"\n";
                                       }
                                       f1.close();
                                       f2.close();
                                   }
                                   else if(b=="c"||b=="C"){
                                           ifstream f1("CSE-C.txt");
                        ofstream f2(d);
                        int i=0;
                        while(!f1.eof()){
                                   f1>>f[i];
                                   i++;
                               }
                           cout<<"Enter the number of subjects:";
                           cin>>n;
                           int m[n];
                           for(int j=0;j<i-1;j=j+5){
                               cout<<"Enter the marks for  "<<f[j];
                               f2<<f[j];
                               for(int k=0;k<n;k++){
                                       cout<<"\nEnter the marks for
subject "<<k+1<<":";
                                       cin>>m[k];
                                       f2<<"\t"<<m[k];
                                               }
                                               f2<<"\n";
                                       }
                                       f1.close();
                                       f2.close();
                                   }
                                   else{
                                   cout<<"Invalid section";
```

```cpp
                                        cout<<"\nPlease try again";
                            }

            }
            else{
                    cout<<"Invalid class";
                    cout<<"\nPlease try again";
            }
            }
            };
            class sectionprocess{
                    protected:
                            string f[30000];
                            public:
                                    void eee(){
                                            ofstream f1("EEE-A.txt",ios::app);
                                            ofstream f2("EEE-B.txt",ios::app);
                                            ifstream f3("EEE.txt",ios::app);
                                            int i=0;
                                        while(!f3.eof()){
                                             f3>>f[i];
                                              i++;
                                        }
                                        for(int j=0;j<i;j++){
                                                if(f[j]=="a"){
                                                        f1<<f[j-2];
                                                        f1<<"\t"<<f[j-1];
                                                        f1<<"\t"<<f[j];
                                                        f1<<"\t"<<f[j+1];
                                                        f1<<"\t"<<f[j+2];
                                                        f1<<"\n";
                                                }
                                                 if(f[j]=="b"){
                                                        f2<<f[j-2];
                                                        f2<<"\t"<<f[j-1];
                                                        f2<<"\t"<<f[j];
                                                        f2<<"\t"<<f[j+1];
                                                        f2<<"\t"<<f[j+2];
                                                        f2<<"\n";
                                                }
                                        }
                                        f1.close();
                                        f2.close();
                                        f3.close();
            }
            void ece(){
                                            ofstream f1("ECE-A.txt",ios::app);
                                            ofstream f2("ECE-B.txt",ios::app);
                                            ofstream f3("ECE-c.txt",ios::app);
                                            ifstream f4("ECE.txt",ios::app);
                                            int i=0;
                                        while(!f4.eof()){
                                             f4>>f[i];
                                              i++;
                                        }
                                        for(int j=0;j<i;j++){
                                                if(f[j]=="a"){
```

```cpp
                                f1<<f[j-2];
                                f1<<"\t"<<f[j-1];
                                f1<<"\t"<<f[j];
                                f1<<"\t"<<f[j+1];
                                f1<<"\t"<<f[j+2];
                                f1<<"\n";
                        }
                        if(f[j]=="b"){
                                f2<<f[j-2];
                                f2<<"\t"<<f[j-1];
                                f2<<"\t"<<f[j];
                                f2<<"\t"<<f[j+1];
                                f2<<"\t"<<f[j+2];
                                f2<<"\n";
                        }
                        if(f[j]=="c"){
                                f3<<f[j-2];
                                f3<<"\t"<<f[j-1];
                                f3<<"\t"<<f[j];
                                f3<<"\t"<<f[j+1];
                                f3<<"\t"<<f[j+2];
                                f3<<"\n";
                        }
                }
                f1.close();
                f2.close();
                f3.close();
                f4.close();
        }
        void cse(){
                        ofstream f1("CSE-A.txt",ios::app);
                        ofstream f2("CSE-B.txt",ios::app);
                        ofstream f3("CSE-c.txt",ios::app);
                        ifstream f4("CSE.txt",ios::app);
                        int i=0;
                    while(!f4.eof()){
                        f4>>f[i];
                          i++;
                }
                for(int j=0;j<i;j++){
                        if(f[j]=="a"){
                                f1<<f[j-2];
                                f1<<"\t"<<f[j-1];
                                f1<<"\t"<<f[j];
                                f1<<"\t"<<f[j+1];
                                f1<<"\t"<<f[j+2];
                                f1<<"\n";
                        }
                        if(f[j]=="b"){
                                f2<<f[j-2];
                                f2<<"\t"<<f[j-1];
                                f2<<"\t"<<f[j];
                                f2<<"\t"<<f[j+1];
                                f2<<"\t"<<f[j+2];
                                f2<<"\n";
                        }
                        if(f[j]=="c"){
```

```cpp
                                    f3<<f[j-2];
                                    f3<<"\t"<<f[j-1];
                                    f3<<"\t"<<f[j];
                                    f3<<"\t"<<f[j+1];
                                    f3<<"\t"<<f[j+2];
                                    f3<<"\n";
                                }
                        }
                        f1.close();
                        f2.close();
                        f3.close();
                        f4.close();
                }
                void mech(){
                                ofstream f1("MECH-A.txt",ios::app);
                                ofstream f2("MECH-B.txt",ios::app);
                                ifstream f3("MECH.txt",ios::app);
                                int i=0;
                            while(!f3.eof()){
                                f3>>f[i];
                                 i++;
                        }
                        for(int j=0;j<i;j++){
                                if(f[j]=="a"){
                                    f1<<f[j-2];
                                    f1<<"\t"<<f[j-1];
                                    f1<<"\t"<<f[j];
                                    f1<<"\t"<<f[j+1];
                                    f1<<"\t"<<f[j+2];
                                    f1<<"\n";
                                }
                                if(f[j]=="b"){
                                    f2<<f[j-2];
                                    f2<<"\t"<<f[j-1];
                                    f2<<"\t"<<f[j];
                                    f2<<"\t"<<f[j+1];
                                    f2<<"\t"<<f[j+2];
                                    f2<<"\n";
                                }
                        }
                        f1.close();
                        f2.close();
                        f3.close();
        }
        void itt(){
                                ofstream f1("IT-A.txt",ios::app);
                                ofstream f2("IT-B.txt",ios::app);
                                ifstream f3("IT.txt",ios::app);
                                int i=0;
                            while(!f3.eof()){
                                f3>>f[i];
                                 i++;
                        }
                        for(int j=0;j<i;j++){
                                if(f[j]=="a"||f[j]=="A"){
                                    f1<<f[j-2];
                                    f1<<"\t"<<f[j-1];
```

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```cpp
                                    f1<<"\t"<<f[j];
                                    f1<<"\t"<<f[j+1];
                                    f1<<"\t"<<f[j+2];
                                    f1<<"\n";
                            }
                            if(f[j]=="b"){
                                    f2<<f[j-2];
                                    f2<<"\t"<<f[j-1];
                                    f2<<"\t"<<f[j];
                                    f2<<"\t"<<f[j+1];
                                    f2<<"\t"<<f[j+2];
                                    f2<<"\n";
                            }
                    }
                    f1.close();
                    f2.close();
                    f3.close();
        }
};
class studentprocess:public sectionprocess{
        protected:
                string f[3000];
                public:
                        void processece(){
                                ifstream f1("student.txt");
                                ofstream f2("ECE.txt",ios::app);
                                int i=0;
                            while(!f1.eof()){
                                    f1>>f[i];
                                     i++;
                            }
                            for(int j=0;j<i;j++){
                                    if(f[j]=="ece"){
                                            f2<<f[j-1];
                                            f2<<"\t"<<f[j];
                                            f2<<"\t"<<f[j+1];
                                            f2<<"\t"<<f[j+2];
                                            f2<<"\t"<<f[j+3];
                                            f2<<"\n";
                                    }
                            }
                            f1.close();
                            f2.close();
                            ece();
                    }
                void processcse(){
                                ifstream f1("student.txt",ios::app);
                                ofstream f2("CSE.txt",ios::app);
                                int i=0;
                            while(!f1.eof()){
                                    f1>>f[i];
                                     i++;
                            }
                            for(int j=0;j<i;j++){
                                    if(f[j]=="cse"){
                                            f2<<f[j-1];
                                            f2<<"\t"<<f[j];
```

```cpp
                            f2<<"\t"<<f[j+1];
                            f2<<"\t"<<f[j+2];
                            f2<<"\t"<<f[j+3];
                            f2<<"\n";
                    }
            }
            f1.close();
            f2.close();
            cse();
}
void processeee(){
                    ifstream f1("student.txt",ios::app);
                    ofstream f2("EEE.txt",ios::app);
                    int i=0;
                while(!f1.eof()){
                        f1>>f[i];
                          i++;
                }
                for(int j=0;j<i;j++){
                        if(f[j]=="eee"){
                            f2<<f[j-1];
                            f2<<"\t"<<f[j];
                            f2<<"\t"<<f[j+1];
                            f2<<"\t"<<f[j+2];
                            f2<<"\t"<<f[j+3];
                            f2<<"\n";
                        }
                }
                f1.close();
                f2.close();
                eee();
        }
        void processmech(){
                    ifstream f1("student.txt",ios::app);
                    ofstream f2("MECH.txt",ios::app);
                    int i=0;
                while(!f1.eof()){
                        f1>>f[i];
                          i++;
                }
                for(int j=0;j<i;j++){
                        if(f[j]=="mech"){
                            f2<<f[j-1];
                            f2<<"\t"<<f[j];
                            f2<<"\t"<<f[j+1];
                            f2<<"\t"<<f[j+2];
                            f2<<"\t"<<f[j+3];
                            f2<<"\n";
                        }
                }
                f1.close();
                f2.close();
                mech();
        }
        void processit(){
                    ifstream f1("student.txt",ios::app);
                    ofstream f2("IT.txt",ios::app);
```

```cpp
                                int i=0;
                        while(!f1.eof()){
                                f1>>f[i];
                                 i++;
                        }
                        for(int j=0;j<i;j++){
                                if(f[j]=="it"){
                                        f2<<f[j-1];
                                        f2<<"\t"<<f[j];
                                        f2<<"\t"<<f[j+1];
                                        f2<<"\t"<<f[j+2];
                                        f2<<"\t"<<f[j+3];
                                        f2<<"\n";
                                }
                        }
                        f1.close();
                        f2.close();
                        itt();
                }
};
class addstudent:public studentprocess{
        protected:
                string nnn,dd,ss;
                long int aa;
                long long int mm;
            public:
                void adds(){
                        cout<<"\nEnter the name:";
                        cin>>nnn;
                        cout<<"\nEnter the department:";
                        cin>>dd;
                        cout<<"\nEnter the section:";
                        cin>>ss;
                        cout<<"\nEnter the admission number:";
                        cin>>aa;
                        cout<<"\nEnter the mobile number:";
                        cin>>mm;
                        ofstream f1("student.txt",ios::app);
                        ofstream f3("ECE.txt",ios::trunc);
                        ofstream f4("ECE-A.txt",ios::trunc);
                        ofstream f5("ECE-B.txt",ios::trunc);
                        ofstream f6("ECE-C.txt",ios::trunc);
                        ofstream f7("EEE.txt",ios::trunc);
                        ofstream f8("EEE-A.txt",ios::trunc);
                        ofstream f9("EEE-B.txt",ios::trunc);
                        ofstream f10("MECH.txt",ios::trunc);
                        ofstream f11("MECH-A.txt",ios::trunc);
                        ofstream f12("MECH-B.txt",ios::trunc);
                        ofstream f13("IT.txt",ios::trunc);
                        ofstream f14("IT-A.txt",ios::trunc);
                        ofstream f15("IT-B.txt",ios::trunc);
                        ofstream f16("CSE.txt",ios::trunc);
                        ofstream f17("CSE-A.txt",ios::trunc);
                        ofstream f18("CSE-B.txt",ios::trunc);
                        ofstream f19("CSE-C.txt",ios::trunc);
                                f1<<nnn;
                                f1<<"\t"<<dd;
```

```cpp
                                    f1<<"\t"<<ss;
                                    f1<<"\t"<<aa;
                                    f1<<"\t"<<mm;
                                    f1<<"\n";
                                    f1.close();
                                    f3.close();
                                    f4.close();
                                    f5.close();
                                    f6.close();
                                    f7.close();
                                    f8.close();
                                    f9.close();
                                    f10.close();
                                    f11.close();
                                    f12.close();
                                    f13.close();
                                    f14.close();
                                    f15.close();
                                    f16.close();
                                    f17.close();
                                    f18.close();
                                    f19.close();
                                    processece();
                                    processmech();
                                    processeee();
                                    processcse();
                                    processit();
                }
};
class addteacher{
        protected:
                    string c,d,f;
                    long long int e;
                    long int g;
                public:
                    void addt(){
                            cout<<"\nEnter the name:";
                            cin>>c;
                            cout<<"\nEnter the department:";
                            cin>>d;
                            cout<<"\nEnter the mobile number:";
                            cin>>e;
                            cout<<"\nEnter the designation:";
                            cin>>f;
                            cout<<"\nEnter the id number:";
                            cin>>g;
                            ofstream f1("Teacher.txt",ios::app);
                            ofstream f2("teacherusername.txt",ios::app);
                                f1<<c;
                                f1<<"\t"<<d;
                                f1<<"\t"<<e;
                                f1<<"\t"<<f;
                                f1<<"\t"<<g;
                                f1<<"\n";
                                f2<<g;
                                f2<<"\t"<<e;
                                f2<<"\n";
```

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```cpp
                                            f1.close();
                                            f2.close();
                        }
};
class studentlogin{
        protected:
                string abb[5000];
                string ab;
                string acc;
                string aa;
                string bb;
                string cc,dd,ee;
                int jj=1;
                public:
                        void login2(){
                                student:
                                cout<<"\nEnter user id:";
                                cin>>ab;
                                cout<<"\nEnter the password:";
                                cin>>acc;
                                ifstream f("student.txt");
                            int i=0;
                            while(!f.eof()){
                                f>>abb[i];
                                 i++;
                        }
                        f.close();
                        int k=0;
                        for(int j=0;j<i;j++){
                                if(abb[j]==ab&&abb[j+1]==acc)
                                {
                                cout<<"Login Successful";
                                cout<<"\nYou have login as "<<abb[j-3];
                                cc=abb[j-3];
                                aa=abb[j-2];
                                bb=abb[j-1];
                                dd=abb[j];
                                ee=abb[j+1];
                                k++;
                                int n;
                                student1:
                                cout<<"\n1.View your details\n2.exit";
                                cout<<"\nPlease select your option:";
                                cin>>n;
                                switch(n){
                                        case 1:
                                                cout<<"\nName:"<<cc;
                                                cout<<"\nDepartment:"<<aa;
                                                cout<<"\nSection:"<<bb;
                                                cout<<"\nAdmission
Number:"<<dd;

                                                cout<<"\nMobile number:"<<ee;
                                                goto student1;
                                        case 2:
                                                cout<<"\n^^^^Thanks for
login^^^^";

                                                cout<<"\n~~~~GOOD BYE~~~~";
```

```cpp
                                        break;
                                        default:
                                                cout<<"\n$$$$Invalid
choice$$$$";
                                        cout<<"\nPlease try again\n";
                                        goto student1;
                                }
                        }
                }
                if(k==0){
                        if(jj<3){
                                cout<<"Username or password is
wrong";
                                cout<<"\nPlease try again";
                                jj++;
                                goto student;
                                }
                                else{
                                        cout<<"You have reached the
limit of login attempts";
                                }
                }
        }
};
class teacherlogin:protected addstudent,marks,viewstudent{
        protected:
                string fg;
                string fgg;
                string abb[3000];
                int jj=1;
                public:
                        void login1(){
                                teacher:
                                cout<<"\nEnter user id:";
                                cin>>fgg;
                                cout<<"\nEnter the password:";
                                cin>>fg;
                                ifstream f("teacher.txt");
                        int ii=0;
                        while(!f.eof()){
                                f>>abb[ii];
                                 ii++;
                        }
                        f.close();
                int kkk=0;
                        for(int j=0;j<ii;j++){
                                if(abb[j]==fgg&&abb[j-2]==fg)
                                {
                                cout<<"Login Successful";
                                cout<<"\nYou have login as "<<abb[j-4];
                                kkk++;
                                teacher1:
                                int nn;
                                cout<<"\n1.Add student\n2.Update
Marks\n3.View marks\n4.view student details\n5.exit\n";
                                cout<<"\nPlease enter your choice";
                                cin>>nn;
```

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```cpp
                                 switch(nn){
                                     case 1:
                                             adds();
                                             cout<<"\nPlease select any
other option";
                                             goto teacher1;
                                     case 2:
                                             mark();
                                             cout<<"\nPlease select any
other option";
                                             goto teacher1;
                                     case 3:
                                             mark2();
                                             cout<<"\nPlease select any
other option";
                                             goto teacher1;
                                     case 4:
                                             detailss();
                                             cout<<"\nPlease select any
other option";
                                             goto teacher1;
                                     case 5:
                                     cout<<"\n^^^^Thanks for login^^^^";
                                     cout<<"\n~~~~GOOD BYE~~~~";
                                     break;
                                     default:
                                             cout<<"\n$$$$Invalid
choice$$$$";
                                         cout<<"\nPlease try again\n";
                                         goto teacher1;
                                 }
                             }
                         }
                         if(kkk==0){
                             if(jj<3){
                                     cout<<"Username or password is
wrong";
                                 cout<<"\nPlease try again";
                                 jj++;
                                     goto teacher;
                                     }
                                     else{
                                             cout<<"You have reached the
limit of login attempts";
                                     }
                         }
             }
};
class admin  : protected addteacher,viewstudent,markview{
        protected:
                string a[2],b[2];
                public:
                        void login(){
                            ifstream f("Admin.txt");
                            int i=0;
                            while(!f.eof()){
                                    f>>a[i];
```

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```cpp
                                                     i++;
                        }
                        f.close();
                        int j=1;
admin:
                        cout<<"\nEnter the username:";
                        cin>>b[0];
                        cout<<"\nEnter the password:";
                        cin>>b[1];
                        if(a[0]==b[0]&&b[1]==a[1]){
                                int n;
                                cout<<"Login Successful";
                                admin1:
                                cout<<"\n1.Add Teacher\n2.view student
details\n3.view mark\n4.exit";
                                cout<<"\nEnter your choice:";
                                cin>>n;
                                switch(n){
                                        case 1:
                                        addt();
                                        cout<<"\nSelect Other option:";
                                        goto admin1;
                                        case 2:
                                                detailss();
                                                cout<<"\nPlease select any
other option";

                                                goto admin1;
                                case 3:
                                        viewmark();
                                         cout<<"\nPlease select any other
option";

                                                goto admin1;
                                        case 4:
                                        cout<<"\n^^^^Thanks for login^^^^";
                                        cout<<"\n~~~~GOOD BYE~~~~";
                                        break;
                                        default:
                                        cout<<"\n$$$$Invalid choice$$$$";
                                cout<<"\nPlease try again\n";
                                goto admin1;
                                }
                                }
                                else{
                                if(j<3){
                                        cout<<"Username or password is
wrong";

                                    cout<<"\nPlease try again";
                                    j++;
                                        goto admin;
                                        }
                                        else{
                                                cout<<"You have reached the
limit of login attempts";
                                        }
                        }
                }
};
```

```cpp
int main(){
        int n;
        admin a;
        studentlogin s;
        teacherlogin t;
menu:
        cout<<"*******WELCOME TO JS COLLEGE********";
        cout<<"\n1.PRINCIPAL LOGIN\n2.TEACHER LOGIN\n3.STUDENT LOGIN";
        cout<<"\n\nPlease enter your choice: ";
        cin>>n;
        switch(n){
                case 1:
                        a.login();
                        break;
                case 2:
                        t.login1();
                        break;
                case 3:
                        s.login2();
                        break;
                default:
                        cout<<"\n$$$$Invalid choice$$$$";
                        cout<<"\nPlease try again\n";
                        goto menu;
        }
        }
```

```
■ F:\2nd year\C++ and Python\MINI\m.exe
Enter the password:Selvaraj
Login Successful
1.Add Teacher
2.view student details
3.view mark
4.exit
Enter your choice:1

Enter the name:Jey

Enter the department:ECE

Enter the mobile number:9976719167

Enter the designation:Teacher

Enter the id number:18387

Select Other option:
1.Add Teacher
2.view student details
3.view mark
4.exit
Enter your choice:4

^^^^Thanks for login^^^^
~~~~GOOD BYE~~~~
-------------------------------
Process exited after 32.8 seconds with return value 0
```

Principal login output

```
■ F:\2nd year\C++ and Python\MINI\m.exe
*******WELCOME TO JS COLLEGE********
1.PRINCIPAL LOGIN
2.TEACHER LOGIN
3.STUDENT LOGIN

Please enter your choice: 2

Enter user id:18387

Enter the password:9976719167
Login Successful
You have login as Jey
1.Add student
2.Update Marks
3.View marks
4.view student details
5.exit

Please enter your choice1

Enter the name:Selva

Enter the department:ece

Enter the section:a

Enter the admission number:18388

Enter the mobile number:9632587410

Please select any other option
1.Add student
2.Update Marks
3.View marks
4.view student details
5.exit

Please enter your choice2
Enter the exam name:cat
Enter the class:ece
Enter the section:a
Enter the number of subjects:4
Enter the marks for  Selva
Enter the marks for subject 1:36

Enter the marks for subject 2:96

Enter the marks for subject 3:45

Enter the marks for subject 4:78
```

Teacher login output

```
■ F:\2nd year\C++ and Python\MINI\m.exe
*******WELCOME TO JS COLLEGE********
1.PRINCIPAL LOGIN
2.TEACHER LOGIN
3.STUDENT LOGIN

Please enter your choice: 2

Enter user id:18387

Enter the password:9976719167
Login Successful
You have login as Jey
1.Add student
2.Update Marks
3.View marks
4.view student details
5.exit

Please enter your choice3

Enter the exam name:cat

Enter the class:ece

Enter the section:a
Selva    36     96     45     78

Please select any other option
1.Add student
2.Update Marks
3.View marks
4.view student details
5.exit

Please enter your choice5

^^^^Thanks for login^^^^
~~~~GOOD BYE~~~~
-------------------------------
Process exited after 25.11 seconds with return value 0
Press any key to continue . . .
```

```
F:\2nd year\C++ and Python\MINI\m.exe
Please enter your choice: 3

Enter user id:18389

Enter the password:9632587410
Username or password is wrong
Please try again
Enter user id:18883

Enter the password:9632587410
Login Successful
You have login as Selva
1.View your details
2.exit
Please select your option:1

Name:Selva
Department:ECE
Section:a
Admission Number:18883
Mobile number:9632587410
1.View your details
2.exit
Please select your option:2

^^^^Thanks for login^^^^
~~~~GOOD BYE~~~~
-------------------------------
Process exited after 44.06 seconds with return value 0
Press any key to continue . . .
```

STUDENT LOGIN OUTPUT