Section : B:

Name : Muhammad usama

Roll no: 17f-8195.

Assignment # 3.

Task 1:

#include<iostream>

#include<string>

using namespace std;

class person

{

private:

string name;

int age;

char gender;

string occupation;

char cooking;

public:

person():name("a"),age(0),gender('m'),occupation("student"),cooking('n')

{}

void setname(string);

void setage(int);

void setoccupation(string);

void setgender(char);

void setcook(char);

string getname();

int getage();

string ismale();

string isfemale();

string getoccupation();

int cancook();

~person()

{

cout<<"i am destructor "<<endl;

}

}p1;

void person::setname(string n)

{

name=n;

}

void person::setage(int a)

{

age=a;

}

string person::getname()

{

return name;

}

int person::getage()

{

return age;

}

string person::ismale()

{

if(gender=='m'||gender=='M')

{

return "male";

}

else

{

return "femal";

}

}

void person::setgender(char gend)

{

gender=gend;

}

string person::isfemale()

{

if(gender=='f'||gender=='F')

{

return "female";

}

else

{

return "male";

}

}

void person::setcook(char coo)

{

cooking=coo;

}

string person::getoccupation()

{

return occupation;

}

int person::cancook()

{

if(cooking=='y'||cooking=='Y')

{

return true;

}

else

{

return false;

}

}

void person::setoccupation(string ocup)

{

occupation=ocup;

}

int main()

{

int age;

string occupation,name;

char gender;

char cook;

cout<<"enetr your age : ";

cin>>age;

cout<<"eneter you name : ";

cin>>name;

cout<<"eneter your occupation : ";

cin>>occupation;

cout<<"enter your gender : ";

cin>>gender;

cout<<"if you cancook press y else n : ";

cin>>cook;

p1.setage(age);

p1.setname(name);

p1.setoccupation(occupation);

p1.setgender(gender);

p1.setcook(cook);

cout<<"my age is : ";

cout<<p1.getage()<<endl;

cout<<"my name is : ";

cout<<p1.getname()<<endl;

cout<<"gender status : ";

cout<<p1.isfemale()<<endl;

cout<<p1.isfemale()<<endl;

cout<<"my occupation : ";

cout<<p1.getoccupation()<<endl;

cout<<"cooking status : ";

cout<<p1.cancook()<<endl;

/\*p1.setname("USAMA");

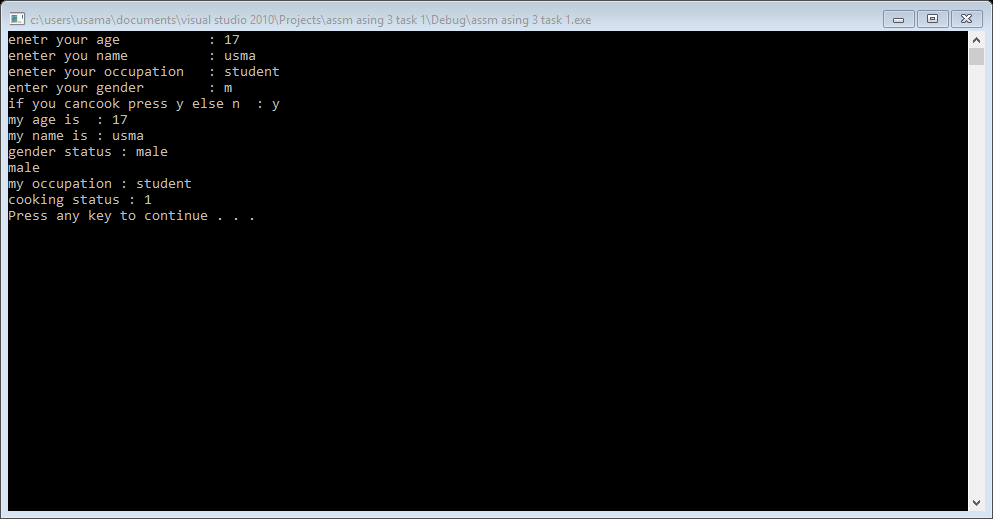
cout<<p1.getname()<<endl;\*/

system("pause");

return 0;

}

Result:



Task 2:

#include<iostream>

#include<string>

#include<iomanip>

using namespace std;

class employee

{

private:

string name;

int idnumber;

string department;

string position;

public:

employee() :name(""),idnumber(0),department(""),position("")

{}

employee(string N,string dep,string posi,int id) :name(N),idnumber(id),department(dep),position(posi)

{}

void setname(string);

void setid(int);

void setdep(string);

void setpos(string);

string getname();

int getid();

string getdep();

string getpos();

~employee()

{

cout<<"i am destructor "<<endl;

}

};

void employee::setname(string n)

{

name=n;

}

void employee::setid(int id)

{

idnumber=id;

}

void employee::setdep(string dp)

{

department=dp;

}

void employee::setpos(string po)

{

position=po;

}

string employee::getname()

{

return name;

}

int employee::getid()

{

return idnumber;

}

string employee::getpos()

{

return position;

}

string employee::getdep()

{

return department;

}

int main()

{

employee emp[3];

string name,position,department;

int id=0;

/\*cout<<"enter name to enter : ";

cin>>name;

cout<<"enter position : ";

cin>>position;

cout<<"enter department : ";

cin>>department;

cout<<"enter id number : ";

cin>>id;

employee(name,department,position,id);\*/ //assing value to private variable by using parametric constructor.

for(int i=0; i<3; i++)

{

cout<<"eneter name for "<<i+1<<" employee : ";

cin>>name;

emp[i].setname(name);

cout<<"eneter id for "<<i+1<<" employee : ";

cin>>id;

emp[i].setid(id);

cout<<"eneter department for "<<i+1<<" employee : ";

cin>>department;

emp[i].setdep(department);

cout<<"eneter your position "<<i+1<<" employee : ";

cin>>position;

emp[i].setpos(position);

cout<<endl;

}

cout<<endl;

cout<<"NAMES"<<setw(20)<<"idNumber"<<setw(25)<<"Department"<<setw(25)<<"Position"<<endl;

for(int i=0; i<3; i++)

{

cout<<emp[i].getname()<<setw(20);

cout<<emp[i].getid()<<setw(25);

cout<<emp[i].getdep()<<setw(25);

cout<<emp[i].getpos()<<endl;

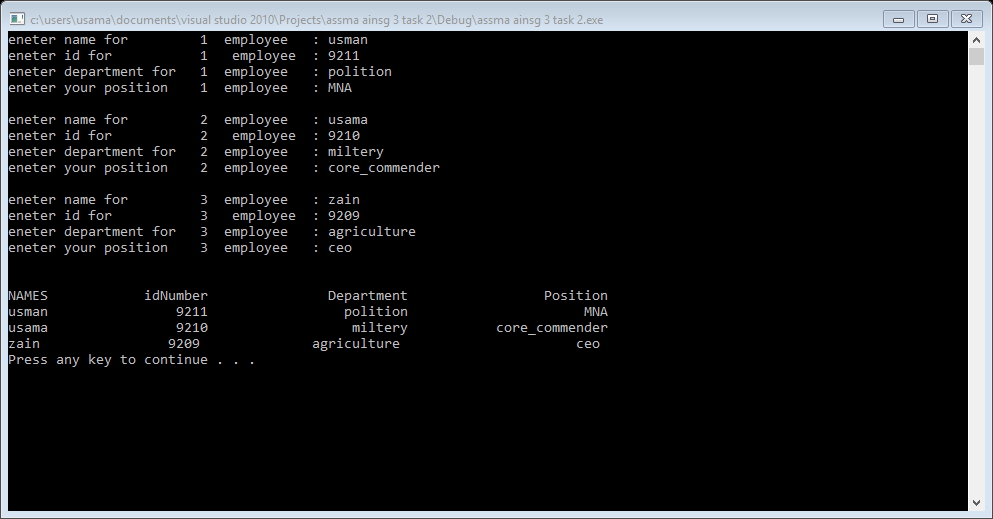
}

system("pause");

return 0;

}

Result:



Task 4:

#include<iostream>

using namespace std;

int gcd(int i,int j);

int main()

{

int i=0,j=0;

cout<<"enetr 1 number : ";

cin>>i;

cout<<"enetr 1 number : ";

cin>>j;

cout<<"higest common deviser : "<<gcd(i,j)<<endl;

system("pause");

return 0;

}

int gcd(int i,int j)

{

if(i!=j)

{

if(i<j)

{

gcd(i,j-i);

}

else

{

gcd(i-j,j);

}

}

else

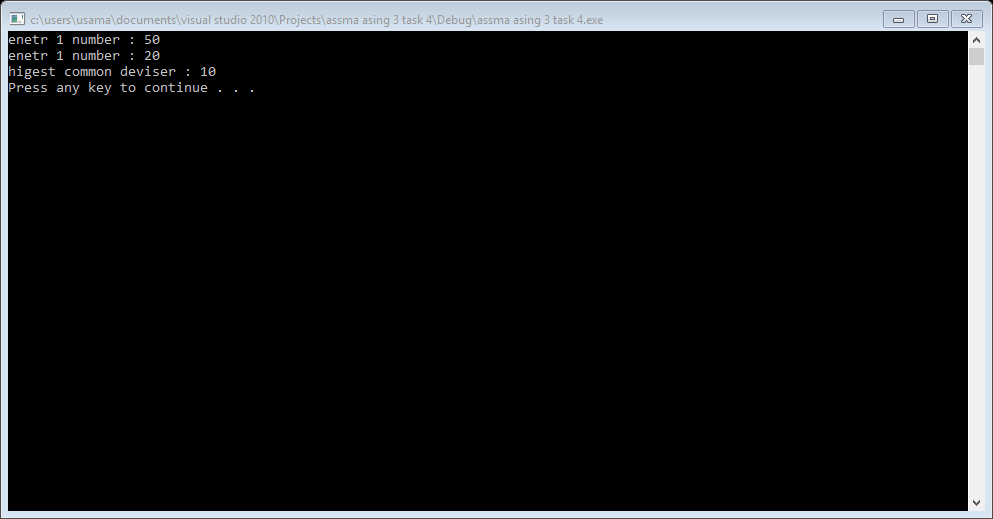
{

return i;

}

}

Result:



Task 5:

#include<iostream>

using namespace std;

int Rbubble(int list[],int l);

int main()

{

const int j=9;

int l=0;

l=j;

int list[j]={1,9,7,8,6,5,4,3,2};

Rbubble(list,l);

for(int i=0; i<l; i++)

{

cout<<list[i]<<" ";

}

cout<<endl;

system("pause");

return 0;

}

int Rbubble(int list[],int l)

{

for(int i=0; i<l-1; i++)

{

if(list[i]>list[i+1])

{

swap(list[i],list[i+1]);

}

}

if(l==1)

{

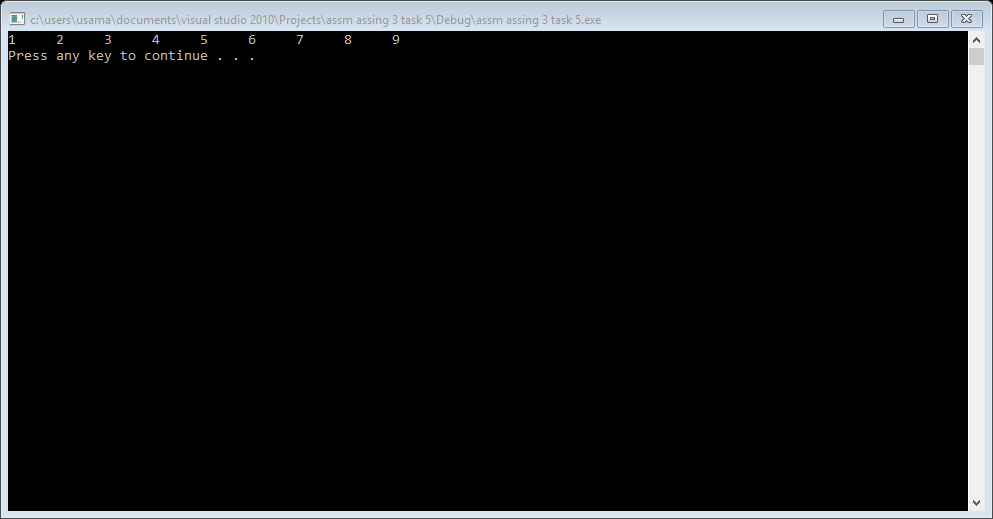
return 0;

}

Rbubble(list,l-1);

}

Result:



Task 6:

#include<iostream>

#include<string>

using namespace std;

int palindrome(string s,int a,int l);

int main()

{

int l=0;

int a=0;

string s="abbbbbbbbbbbbbbbbba";

l=s.length();

if(palindrome(s,a,l-1)==1)

{

cout<<"its a palindrome string"<<endl;

}

else

{

cout<<"not a palindrome string"<<endl;

}

system("pause");

return 0;

}

int palindrome(string s,int a, int l)

{

if(l==a)

{

return true;

}

if(s[a]=!s[l])

{

return false;

}

if(l>a)

{

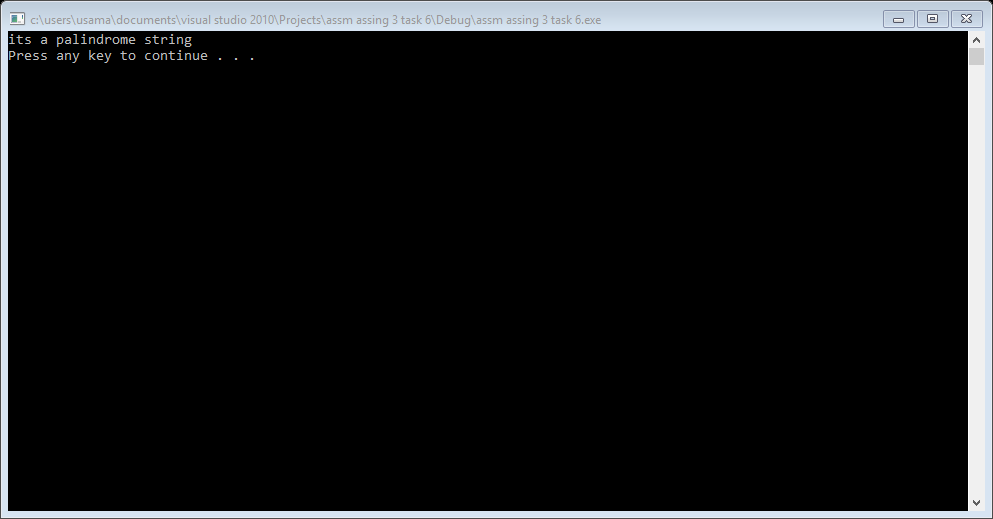
palindrome(s,a+1,l-1);

}

return true;

}

Result:



Task 7:

#include<iostream>

#include<fstream>

#include<string>

using namespace std;

class teacher /////////////class teacher//////////

{

private:

string name;

char rank;

string \*sub;

string \*classes;

public:

teacher():name(""),rank('0')

{

sub=new string[5];

classes=new string[9];

}

void setname(string);

void setrank(char);

void setsub(string\*);

void setclasses(string\*);

string getname();

char getrank();

string\* getsub();

string\* getclasses();

~teacher()

{

delete []sub;

sub=NULL;

delete []classes;

classes=NULL;

}

};

/////////////set function of teacher//////////////

void teacher::setname(string n)

{

name=n;

}

void teacher::setrank(char r)

{

rank=r;

}

void teacher::setsub(string\* s)

{

sub=s;

}

void teacher::setclasses(string\* c)

{

classes=c;

}

////////////get functions of teacher//////////////

string teacher::getname()

{

return name;

}

char teacher::getrank()

{

return rank;

}

string\* teacher::getsub()

{

return sub;

}

string\* teacher::getclasses()

{

return classes;

}

class student /////////////class student/////////////

{

private:

string name;

int RollNumber;

int age;

string level;

string location;

public:

student():name(""),RollNumber(0),age(0),level("")

{}

void setname(string);

void setRollNumber(int);

void setage(int);

void setlevel(string);

void setlocation(string);

string getname();

int getRollNumber();

int getage();

string getlevel();

string getlocation();

};

///////////set functions of student////////////

void student::setname(string n)

{

name=n;

}

void student::setage(int a)

{

age=a;

}

void student::setRollNumber(int r)

{

RollNumber=r;

}

void student::setlevel(string l)

{

level=l;

}

void student::setlocation(string l)

{

location=l;

}

///////////get functions of student////////////

string student::getname()

{

return name;

}

int student::getRollNumber()

{

return RollNumber;

}

int student::getage()

{

return age;

}

string student::getlevel()

{

return level;

}

string student::getlocation()

{

return location;

}

int main()

{

ifstream read;

ofstream write;

string \*name;

name=new string[10000];

teacher \*t;

t=new teacher[10];

student \*s;

s=new student[10];

char c;

bool flage=true;

char another;

string sname;

cout<<"SCHOOL ::: DAR\_E\_ARQAM"<<endl<<endl<<endl;

cout<<"principal : USAMA "<<endl;

///////////display teacher names/////////////

read.open("Tnames.txt");

if(read)

{

for(int i=0; i<4; i++)

{

read>>name[i];

t[i].setname(name[i]);

}

}

else

{

cout<<"file not open "<<endl;

}

read.close();

cout<<"following teachers in our school"<<endl;

for(int i=0; i<4; i++)

{

cout<<i+1<<" "<<t[i].getname()<<endl;

}

cout<<endl;

//////////display student names//////////

read.open("Snames.txt");

if(read)

{

for(int i=0; i<7; i++)

{

read>>name[i];

s[i].setname(name[i]);

}

}

else

{

cout<<"file not open "<<endl;

}

read.close();

cout<<"following students in our school"<<endl;

for(int i=0; i<7; i++)

{

cout<<i+1<<" "<<s[i].getname()<<endl;

}

/////////////////write on file/////////////////

while(flage==true)

{

cout<<"press S for enrollment of student "<<endl;

cout<<"press R recruitment of teacher"<<endl;

cout<<"press T for find teachers"<<endl;

cout<<"press E for exit "<<endl;

cin>>c;

if(c=='E'||c=='e')

{

system("pause");

return 0;

}

if(c=='R'||c=='r')

{

write.open("Tnames.txt",ios::app);

if(write)

{

for(int i=0; i<1; i++)

{

cout<<"enter name of teacher : ";

cin>>name[i];

write<<" "<<name[i];

t[i].setname(name[i]);

}

}

else

{

cout<<"file not open "<<endl;

}

write.close();

}

else if(c=='S'||c=='s')

{

write.open("Snames.txt",ios::app);

if(write)

{

for(int i=0; i<1; i++)

{

cout<<"enter name of student : ";

cin>>name[i];

write<<" "<<name[i];

s[i].setname(name[i]);

}

}

else

{

cout<<"file not open "<<endl;

}

write.close();

}

else if(c=='T'||c=='t')

{

do

{

cout<<"for mam\_assma type man\_assma"<<endl;

cout<<"for mam\_arosa type man\_arosa. in other case your seach key fail"<<endl;

cin>>sname;

if(sname=="mam\_arosa")

{

////////////sub mam\_arrosa//////////////

read.open("asub.txt");

if(read)

{

for(int i=0; i<100; i++)

{

read>>name[i];

}

}

else

{

cout<<"file not open "<<endl;

}

read.close();

t[0].setsub(name);

for(int i=0; i<100; i++)

{

cout<<name[i]<<" ";

}

//cout<<"subject of mam\_arosa : "<<\*(t[0].getsub())<<endl;

}

else if(sname=="mam\_assma")

{

////////////sub mam\_assma//////////////

read.open("ssub.txt");

if(read)

{

for(int i=0; i<100; i++)

{

read>>name[i];

}

}

else

{

cout<<"file not open "<<endl;

}

read.close();

t[0].setsub(name);

for(int i=0; i<100; i++)

{

cout<<name[i]<<" ";

}

// cout<<"subject of mam\_assma : "<<\*(t[0].getsub())<<endl;

}

else

{

cout<<"you type wrong speling please type same spaling for again search press 1 else 0"<<endl;

cin>>sname;

}

}

while(sname=="1");

}

else

{

cout<<"YOU PRESS invalid key"<<endl;

}

cout<<"if you want another enrolment or recruitment prees 1 elae 0"<<endl;

cin>>another;

if(another=='1')

{

system("cls");

flage==true;

}

else

{

flage==false;

}

cout<<endl;

}

delete []name;

name=NULL;

delete []t;

t=NULL;

delete []s;

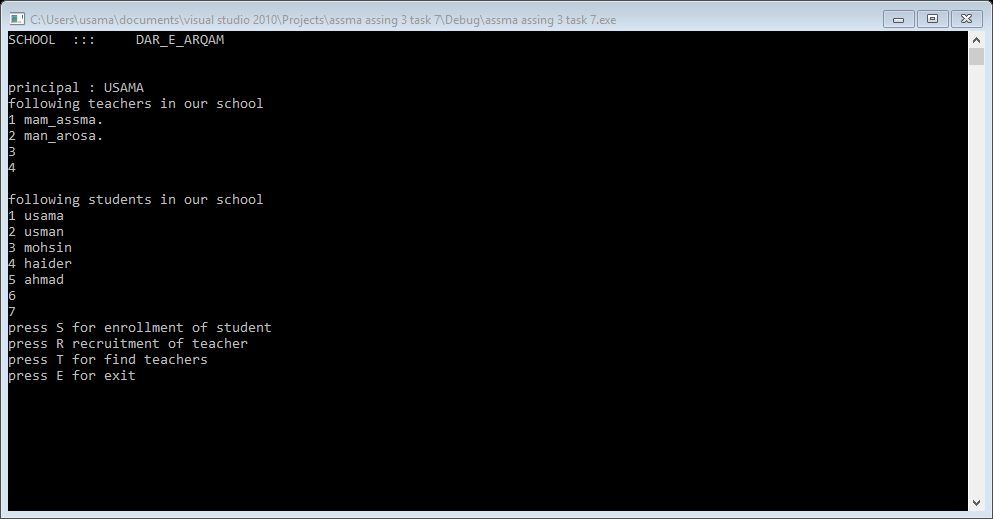
s=NULL;

system("pause");

return 0;

}

Result:



Task 10:

#include<iostream>

#include<string>

using namespace std;

class tollbooth

{

private:

int tcars;

int npcars;

float totalm;

public:

tollbooth():tcars(0),npcars(0),totalm(0)

{}

void payingcar();

void npayingcar();

int gettcars();

int getnpcars();

float gettotalm();

};

void tollbooth::payingcar()

{

tcars++;

totalm=totalm+0.50;

}

void tollbooth::npayingcar()

{

tcars++;

npcars++;

}

int tollbooth::gettcars()

{

return tcars;

}

int tollbooth::getnpcars()

{

return npcars;

}

float tollbooth::gettotalm()

{

return totalm;

}

int main()

{

tollbooth obj;

int choice=0;

int achoice=0;

int count=0;

do

{

do

{

cout<<"car pass \n1: pay toll txt\n2: not pay toll txt\n3: total car passed and toll collected "<<endl;

cout<<"car passed : "<<count<<endl;

cin>>choice;

if(choice==1)

{

obj.payingcar();

count++;

}

else if(choice==2)

{

obj.npayingcar();

count++;

}

else if(choice==3)

{

cout<<"total car passed : "<<obj.gettcars()<<endl;

cout<<"total toll collected : "<<obj.gettotalm()<<endl;

cout<<"not paying toll tax cars : "<<obj.getnpcars()<<endl;

cout<<"1 : for continue programe "<<endl;

cout<<"2 : for derminate programe"<<endl;

cin>>achoice;

system("cls");

}

}

while(achoice==1);

system("cls");

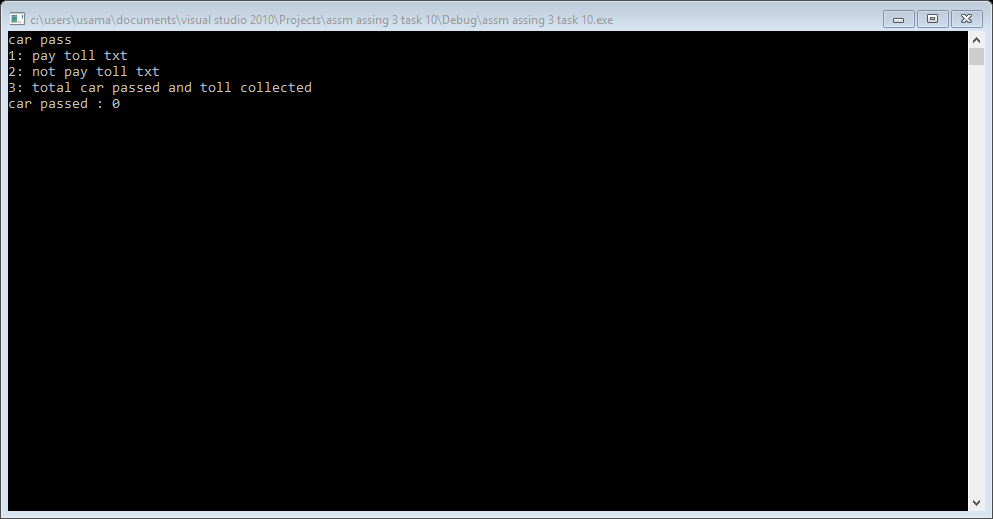
}

while(choice !=3);

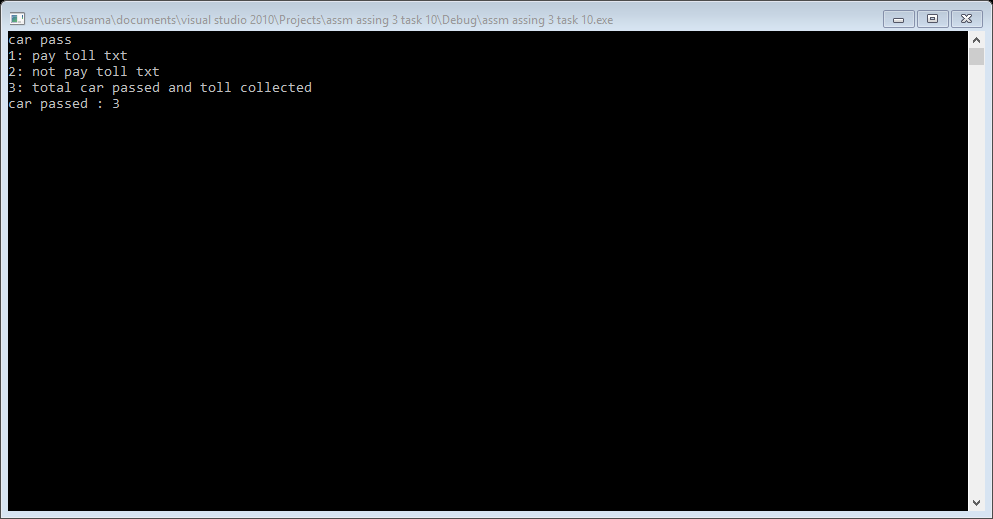
system("pause");

return 0;}

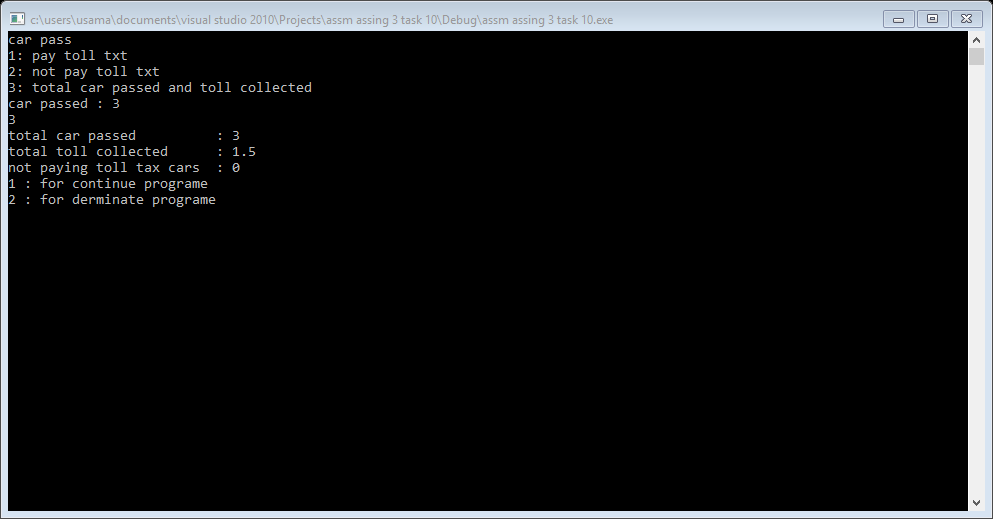
Result: 1



Result: 2



Result: 3



Task 9:

#include<iostream>

using namespace std;

class rational

{

private:

float numerator;

float denumerator;

public:

void setnumerator(float);

void setdenumerator(float);

float getnumerator();

float getdenumerator();

float getpq(float,float);

};

void rational::setnumerator(float n)

{

numerator=n;

}

void rational::setdenumerator(float d)

{

denumerator=d;

}

float rational::getpq(float n, float d)

{

n/d;

return n/d;

}

float rational::getnumerator()

{

return numerator;

}

float rational::getdenumerator()

{

return denumerator;

}

int main()

{

float addition=0;

float subtraction=0;

float multiplication=0;

float division=0;

float n1=0;

float d1=0;

float n2=0;

float d2=0;

float pq1=0;

float pq2=0;

int choice=0;

int wchoice=0;

rational ob1;

rational ob2;

cout<<"enter numerator for 1st value : ";

cin>>n1;

cout<<"enter denumerator for 1st value : ";

cin>>d1;

cout<<"enter numerator for 2nd value : ";

cin>>n2;

cout<<"enter denumerator for 2nd value : ";

cin>>d2;

ob1.setnumerator(n1);

ob1.setdenumerator(d1);

ob2.setnumerator(n2);

ob2.setdenumerator(d2);

n1=ob1.getnumerator();

d1=ob1.getdenumerator();

n2=ob2.getnumerator();

d2=ob2.getdenumerator();

pq1=ob1.getpq(n1,d1);

pq2=ob2.getpq(n2,d2);

do

{

cout<<"1 :for addition : "<<endl;

cout<<"2 :for multiplication : "<<endl;

cout<<"3 :for subtraction : "<<endl;

cout<<"4 :for division : "<<endl;

cin>>choice;

switch(choice)

{

case 1:

cout<<"addition :";

cout<<pq1+pq2<<endl;

break;

case 2:

cout<<"multiplication :";

cout<<pq1\*pq2<<endl;

break;

case 3:

cout<<"subtraction :";

cout<<pq1-pq2<<endl;

break;

case 4:

cout<<"devision :";

cout<<pq1/pq2<<endl;

break;

}

cout<<"1: for applying another operation "<<endl;

cout<<"2: for terminate programe "<<endl;

cin>>wchoice;

system("cls");

}

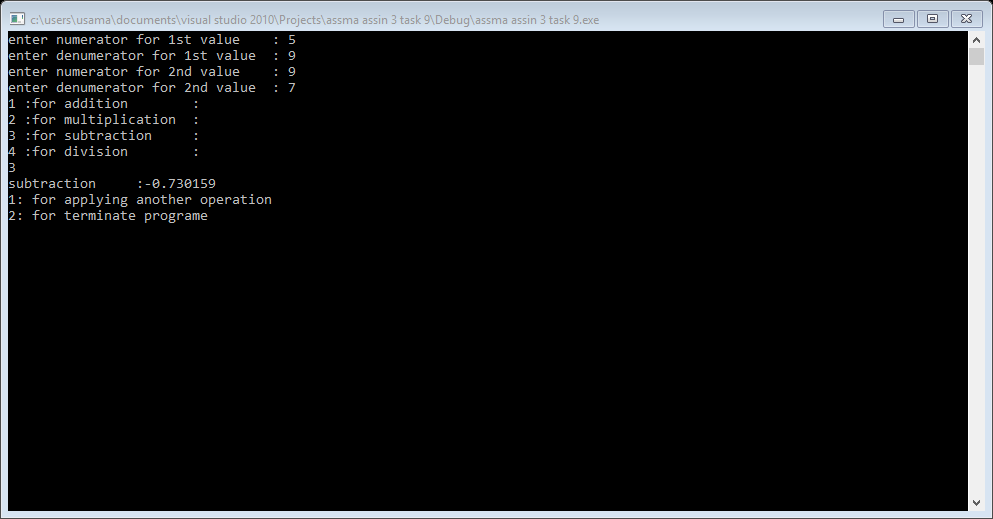
while(wchoice==1);

system("pause");

return 0;

}

Result:



Task 8:

#include<iostream>

#include<string>

#include<iomanip>

using namespace std;

class student

{

private:

int id;

string name;

char gender;

int semester;

string department;

float gpa;

string extra;

public:

void setid(int);

void setname(string);

void setgender(char);

void setsemester(int);

void setdepartment(string);

void setgpa(float);

void setextra(string);

int getid();

string getname();

char getgender();

int getsemester();

string getdepartment();

float getgpa();

string getextra();

};

void student::setid(int i)

{

id=i;

}

void student::setname(string n)

{

name=n;

}

void student::setgender(char g)

{

gender=g;

}

void student::setsemester(int s)

{

semester=s;

}

void student::setdepartment(string d)

{

department=d;

}

void student::setgpa(float g)

{

gpa=g;

}

void student::setextra(string x)

{

extra=x;

}

string student::getname()

{

return name;

}

char student::getgender()

{

return gender;

}

int student::getsemester()

{

return semester;

}

string student::getdepartment()

{

return department;

}

float student::getgpa()

{

return gpa;

}

string student::getextra()

{

return extra;

}

int student::getid()

{

return id;

}

void tosetfun();

void to\_R();

int size=14;

student \*obj=new student[size];

int id=0;

string name;

char gender;

int semester;

string department;

float gpa;

string extra;

int main()

{

tosetfun();

to\_R();

delete []obj;

obj=NULL;

system("pause");

return 0;

}

void tosetfun()

{

////by using assingment statement of 1st 10 students.

id=8195;

name="usama";

gender='M';

semester=5;

department="BSCS";

gpa=3.8;

extra="marcial art";

obj[0].setname(name);

obj[0].setgender(gender);

obj[0].setsemester(semester);

obj[0].setdepartment(department);

obj[0].setgpa(gpa);

obj[0].setextra(extra);

obj[0].setid(id);

id=8196;

name="usman";

gender='M';

semester=2;

department="BSCS";

gpa=3.1;

extra="all games";

obj[1].setname(name);

obj[1].setgender(gender);

obj[1].setsemester(semester);

obj[1].setdepartment(department);

obj[1].setgpa(gpa);

obj[1].setextra(extra);

obj[1].setid(id);

id=8197;

name="zain";

gender='M';

semester=6;

department="BSCS";

gpa=3.4;

extra="movies";

obj[2].setname(name);

obj[2].setgender(gender);

obj[2].setsemester(semester);

obj[2].setdepartment(department);

obj[2].setgpa(gpa);

obj[2].setextra(extra);

obj[2].setid(id);

id=8198;

name="haseb";

gender='M';

semester=8;

department="BSCS";

gpa=3.9;

extra="movies";

obj[3].setname(name);

obj[3].setgender(gender);

obj[3].setsemester(semester);

obj[3].setdepartment(department);

obj[3].setgpa(gpa);

obj[3].setextra(extra);

obj[3].setid(id);

id=8199;

name="waqas";

gender='M';

semester=5;

department="BSCS";

gpa=1.7;

extra="all games";

obj[4].setname(name);

obj[4].setgender(gender);

obj[4].setsemester(semester);

obj[4].setdepartment(department);

obj[4].setgpa(gpa);

obj[4].setextra(extra);

obj[4].setid(id);

id=8200;

name="owais";

gender='M';

semester=8;

department="BSCS";

gpa=2.4;

extra="all games";

obj[5].setname(name);

obj[5].setgender(gender);

obj[5].setsemester(semester);

obj[5].setdepartment(department);

obj[5].setgpa(gpa);

obj[5].setextra(extra);

obj[5].setid(id);

id=8201;

name="zanib";

gender='F';

semester=2;

department="MEDICAL";

gpa=3.4;

extra="nothing";

obj[6].setname(name);

obj[6].setgender(gender);

obj[6].setsemester(semester);

obj[6].setdepartment(department);

obj[6].setgpa(gpa);

obj[6].setextra(extra);

obj[6].setid(id);

id=8202;

name="inshira";

gender='F';

semester=2;

department="MEDICAL";

gpa=4.0;

extra="reciting";

obj[7].setname(name);

obj[7].setgender(gender);

obj[7].setsemester(semester);

obj[7].setdepartment(department);

obj[7].setgpa(gpa);

obj[7].setextra(extra);

obj[7].setid(id);

id=8203;

name="umama";

gender='F';

semester=2;

department="MEDICAL";

gpa=3.8;

extra="nothing";

obj[8].setname(name);

obj[8].setgender(gender);

obj[8].setsemester(semester);

obj[8].setdepartment(department);

obj[8].setgpa(gpa);

obj[8].setextra(extra);

obj[8].setid(id);

id=8204;

name="menahil";

gender='F';

semester=4;

department="MEDICAL";

gpa=3.99;

extra="making fool";

obj[9].setname(name);

obj[9].setgender(gender);

obj[9].setsemester(semester);

obj[9].setdepartment(department);

obj[9].setgpa(gpa);

obj[9].setextra(extra);

obj[9].setid(id);

name="menahil";

gender='F';

semester=4;

department="MEDICAL";

gpa=3.99;

extra="making fool";

obj[11].setname(name);

obj[11].setgender(gender);

obj[11].setsemester(semester);

obj[11].setdepartment(department);

obj[11].setgpa(gpa);

obj[11].setextra(extra);

obj[11].setid(id);

id=8205;

name="tahreem";

gender='F';

semester=5;

department="MEDICAL";

gpa=1.8;

extra="nothing";

obj[10].setname(name);

obj[10].setgender(gender);

obj[10].setsemester(semester);

obj[10].setdepartment(department);

obj[10].setgpa(gpa);

obj[10].setextra(extra);

obj[10].setid(id);

}

void to\_R()

{

int choice;

string mstr;

int msemest;

int cgpa=0;

string cextra;

do

{

cout<<"1 :for enter data of a new students "<<endl;

cout<<"2 :for display data of all student on screen "<<endl;

cout<<"3 :for search and display the information of a student "<<endl;

cout<<"4 :for updata the information of old student "<<endl;

cout<<"5 :for search the record of perticular department "<<endl;

cout<<"6 :for search the record of perticular semester "<<endl;

cout<<"7 :for deleat the record of student and search by id "<<endl;

cout<<"8 :for delete the duplicate id "<<endl;

cout<<"9 :for deviding students into nerds, vibrants, dumbs,"<<endl;

cout<<"10:for terminate the programe"<<endl;

cin>>choice;

if(choice==1)

{

for(int i=12; i<size; i++)

{ cout<<"enter id of "<<i+1<<" student : ";

cin>>id;

cout<<"enter name of "<<i+1<<" student : ";

cin>>name;

cout<<"enetr gender of "<<i+1<<" student : ";

cin>>gender;

cout<<"enetr semester of "<<i+1<<" student : ";

cin>>semester;

cout<<"enter department of "<<i+1<<" student : ";

cin>>department;

cout<<"enetr GPA of "<<i+1<<" student : ";

cin>>gpa;

cout<<"enetr extra of "<<i+1<<" student : ";

cin>>extra;

obj[i].setid(id);

obj[i].setname(name);

obj[i].setgender(gender);

obj[i].setsemester(semester);

obj[i].setdepartment(department);

obj[i].setgpa(gpa);

obj[i].setextra(extra);

obj[i].setid(id);

//size++;

//obj=new student[size];

cout<<"if you want to stop entries press 1 else 0 : ";

cin>>choice;

if(choice==1)

{

break;

}

}

}

else if(choice==2)

{

cout<<"id NAME GENDER SEMESTER DEGREE GPA ACTIVITES"<<endl<<endl;

for(int i=0; i<size; i++)

{

cout<<setw(5)<<obj[i].getid()<<setw(5);

cout<<setw(8)<<obj[i].getname()<<setw(8);

cout<<obj[i].getgender()<<setw(14);

cout<<obj[i].getsemester()<<setw(22);

cout<<obj[i].getdepartment()<<setw(14);

cout<<obj[i].getgpa()<<setw(19);

cout<<obj[i].getextra()<<setw(8);

cout<<endl;

}

}

else if(choice==3)

{

cout<<"type the name of student which data you want to display : ";

cin>>mstr;

cout<<"id NAME GENDER SEMESTER DEGREE GPA ACTIVITES"<<endl<<endl;

for(int i=0; i<size; i++)

{

if(mstr==obj[i].getname())

{

cout<<setw(5)<<obj[i].getid()<<setw(5);

cout<<setw(8)<<obj[i].getname()<<setw(8);

cout<<obj[i].getgender()<<setw(14);

cout<<obj[i].getsemester()<<setw(22);

cout<<obj[i].getdepartment()<<setw(14);

cout<<obj[i].getgpa()<<setw(19);

cout<<obj[i].getextra()<<setw(8);

cout<<endl;

}

}

}

else if(choice==4)

{

cout<<"type the name of student which record you want to update"<<endl;

cin>>mstr;

for(int i=0; i<size; i++)

{

if(mstr==obj[i].getname())

{

cout<<"now type whole information of this student agin"<<endl;

cout<<"eneter id of student : "<<obj[i].getname()<<" : ";

cin>>id;

cout<<"eneter gender of student : "<<obj[i].getname()<<" : ";

cin>>gender;

cout<<"eneter semeste of student : "<<obj[i].getname()<<" : ";

cin>>semester;

cout<<"enter department of student : "<<obj[i].getname()<<" : ";

cin>>department;

cout<<"enetr GPA of student : "<<obj[i].getname()<<" : ";

cin>>gpa;

cout<<"enetr extra of student : "<<obj[i].getname()<<" : ";

cin>>extra;

obj[i].setid(id);

obj[i].setgender(gender);

obj[i].setsemester(semester);

obj[i].setdepartment(department);

obj[i].setgpa(gpa);

obj[i].setextra(extra);

obj[i].setid(id);

break;

}

}

}

else if(choice==5)

{

cout<<"type the name of perticular department : ";

cin>>mstr;

cout<<"id NAME GENDER SEMESTER DEGREE GPA ACTIVITES"<<endl<<endl;

for(int i=0; i<size; i++)

{

if(mstr==obj[i].getdepartment())

{

cout<<setw(5)<<obj[i].getid()<<setw(5);

cout<<setw(8)<<obj[i].getname()<<setw(8);

cout<<obj[i].getgender()<<setw(14);

cout<<obj[i].getsemester()<<setw(22);

cout<<obj[i].getdepartment()<<setw(14);

cout<<obj[i].getgpa()<<setw(19);

cout<<obj[i].getextra()<<setw(8);

cout<<endl;

}

}

}

else if(choice==6)

{

cout<<"type the name of perticular semester : ";

cin>>msemest;

cout<<"NAME GENDER SEMESTER DEGREE GPA ACTIVITES"<<endl<<endl;

for(int i=0; i<size; i++)

{

if(msemest==obj[i].getsemester())

{

cout<<setw(8)<<obj[i].getname()<<setw(8);

cout<<obj[i].getgender()<<setw(14);

cout<<obj[i].getsemester()<<setw(22);

cout<<obj[i].getdepartment()<<setw(14);

cout<<obj[i].getgpa()<<setw(19);

cout<<obj[i].getextra()<<setw(8);

cout<<endl;

}

}

}

else if(choice==7)

{

cout<<"enter id of student which record you want to deleat : ";

cin>>msemest;

for(int i=0; i<size; i++)

{

if(msemest==obj[i].getid())

{

id=NULL;

name="delete";

gender='d';

semester='0';

department="delete";

gpa=0;

extra="delete";

obj[i].setid(id);

obj[i].setname(name);

obj[i].setgender(gender);

obj[i].setsemester(semester);

obj[i].setdepartment(department);

obj[i].setgpa(gpa);

obj[i].setextra(extra);

}

}

}

else if(choice==8)

{

for(int i=0; i<size; i++)

{

for(int j=0; j<size; j++)

{

if(obj[i].getid()==obj[j].getid()&&i!=j)

{

id=NULL;

name="delete";

gender='d';

semester='d';

department="delete";

gpa=0;

extra="delete";

obj[j].setid(id);

obj[j].setname(name);

obj[j].setgender(gender);

obj[j].setsemester(semester);

obj[j].setdepartment(department);

obj[j].setgpa(gpa);

obj[j].setextra(extra);

}

}

}

}

else if(choice==9)

{

//for nerds students.

cout<<"id NAME GENDER SEMESTER DEGREE GPA ACTIVITES"<<endl<<endl;

cout<<"nerd students "<<endl;

for(int i=0; i<size; i++)

{

if(obj[i].getgpa()>3.5)

{

cout<<setw(5)<<obj[i].getid()<<setw(5);

cout<<setw(8)<<obj[i].getname()<<setw(8);

cout<<obj[i].getgender()<<setw(14);

cout<<obj[i].getsemester()<<setw(22);

cout<<obj[i].getdepartment()<<setw(14);

cout<<obj[i].getgpa()<<setw(19);

cout<<obj[i].getextra()<<setw(8);

cout<<endl;

}

}

cout<<"vibrant students"<<endl;

for(int i=0; i<size; i++)

{

if(obj[i].getgpa()>3.0&&obj[i].getextra()!="nothing")

{

cout<<setw(5)<<obj[i].getid()<<setw(5);

cout<<setw(8)<<obj[i].getname()<<setw(8);

cout<<obj[i].getgender()<<setw(14);

cout<<obj[i].getsemester()<<setw(22);

cout<<obj[i].getdepartment()<<setw(14);

cout<<obj[i].getgpa()<<setw(19);

cout<<obj[i].getextra()<<setw(8);

cout<<endl;

}

}

cout<<"dumbs students"<<endl;

for(int i=0; i<size; i++)

{

if(obj[i].getgpa()<2.0&&obj[i].getextra()=="nothing")

{

cout<<setw(5)<<obj[i].getid()<<setw(5);

cout<<setw(8)<<obj[i].getname()<<setw(8);

cout<<obj[i].getgender()<<setw(14);

cout<<obj[i].getsemester()<<setw(22);

cout<<obj[i].getdepartment()<<setw(14);

cout<<obj[i].getgpa()<<setw(19);

cout<<obj[i].getextra()<<setw(8);

cout<<endl;

}

}

cout<<"remaning students"<<endl;

for(int i=0; i<size; i++)

{

if(obj[i].getgpa()<2.0&&obj[i].getextra()!="nothing")

{

cout<<setw(5)<<obj[i].getid()<<setw(5);

cout<<setw(8)<<obj[i].getname()<<setw(8);

cout<<obj[i].getgender()<<setw(14);

cout<<obj[i].getsemester()<<setw(22);

cout<<obj[i].getdepartment()<<setw(14);

cout<<obj[i].getgpa()<<setw(19);

cout<<obj[i].getextra()<<setw(8);

cout<<endl;

}

}

}

else if(choice==10)

{

system("pause");

return ;

}

cout<<"if you want to execute programe again then press 1 else 0 : ";

cin>>choice;

system("cls");

}

while(choice==1);

}

Result:

