//This program will explain how to read and print multiple student details using **Array of Objects**.

#include <iostream.h>

#include <conio.h>

#define MAX 10

**class** **student**

{

**private:**

**char** name[**30**];

**int** rollNo;

**int** total;

**float** perc;

**public:**

**void** **getDetails**(**void**);

**void** **putDetails**(**void**);

};

**void** student::getDetails(**void**)

{

cout << "Enter name: ";

cin >> name;

cout << "Enter roll number: ";

cin >> rollNo;

cout << "Enter total marks outof 500: ";

cin >> total;

perc = (**float**)total / **500** \* **100**;

}

**void** student::putDetails(**void**)

{

cout << "Student details:**\n**";

cout << "Name:" << name << ",Roll Number:" << rollNo << ",Total:" << total << ",Percentage:" << perc;

}

**void** main()

{

student std[MAX];

**int** n, loop;

cout << "Enter total number of students: ";

cin >> n;

**for** (loop = **0**; loop < n; loop++) {

cout << "Enter details of student " << loop + **1** << ":**\n**";

std[loop].getDetails();

}

cout << endl;

**for** (loop = **0**; loop < n; loop++) {

cout << "Details of student " << (loop + **1**) << ":**\n**";

std[loop].putDetails();

}

}

**Given that an EMPLOYEE class contains following members: data members: Employee number, Employee name, Basic, DA, IT, Net Salary and print data members.**

#include <conio.h>

#include <iostream.h>

class employee

{

int emp\_number;

char emp\_name[20];

float emp\_basic;

float emp\_da;

float emp\_it;

float emp\_net\_sal;

public:

void get\_emp\_details();

float find\_net\_salary(float basic, float da, float it);

void show\_emp\_details();

};

void employee :: get\_emp\_details()

{

cout<<"\nEnter employee number: ";

cin>>emp\_number;

cout<<"\nEnter employee name: ";

cin>>emp\_name;

cout<<"\nEnter employee basic: ";

cin>>emp\_basic;

cout<<"\nEnter employee DA: ";

cin>>emp\_da;

cout<<"\nEnter employee IT: ";

cin>>emp\_it;

}

float employee :: find\_net\_salary(float basic, float da, float it)

{

return (basic+da)-it;

}

void employee :: show\_emp\_details()

{

cout<<"\n\n\*\*\*\* Details of Employee \*\*\*\*";

cout<<"\nEmployee Name : "<<emp\_name;

cout<<"\nEmployee number : "<<emp\_number;

cout<<"\nBasic salary : "<<emp\_basic;

cout<<"\nEmployee DA : "<<emp\_da;

cout<<"\nIncome Tax : "<<emp\_it;

cout<<"\nNet Salary : "<<find\_net\_salary(emp\_basic, emp\_da, emp\_it);

cout<<"\n-------------------------------\n\n";

}

void main()

{

employee emp;

emp.get\_emp\_details();

emp.show\_emp\_details();

}

/\* Write a C++ program to read data of N employee and computer net salary of each employee

(DA = 52% of Basic and IT = 30% of the gross salary) \*/

#include<iostream.h>

#include<conio.h>

class Employee

{

char emp\_name[30];

int emp\_number;

float basic, da, it, gross\_salary, net\_salary;

public:

void read\_emp\_details(int count){

cout<<"\n\n\*\*\* Enter Employee "<<count<<" Details \*\*\*";

cout<<"\nEmployee Number: ";

cin>>emp\_number;

cout<<"Employee Name: ";

cin>>emp\_name;

cout<<"Basic Salary: ";

cin>>basic;

cout<<"\n---- Employee "<<count<<" Datails are saved ----\n\n";

}

float find\_net\_salary(){

da = basic \* 0.52;

gross\_salary = basic + da;

it = gross\_salary \* 0.30;

net\_salary = (basic + da) - it;

return net\_salary;

}

void display\_emp\_details(int count){

cout<<"\n\n\*\*\* Employee "<<count<<" Details \*\*\*\n";

cout<<"\nEmployee Number : "<<emp\_number;

cout<<"\nEmployee Name : "<<emp\_name;

cout<<"\nNet Salary: "<<net\_salary;

cout<<"\n--------------------------\n";

}

};

void main(){

Employee emp[100];

int number\_of\_emp, count;

clrscr();

cout<<"\nPlease enter the number of Employees (Max. 100): ";

cin>>number\_of\_emp;

for(count=0; count< number\_of\_emp; count++){

emp[count].read\_emp\_details(count+1);

}

for(count=0; count < number\_of\_emp; count++){

emp[count].find\_net\_salary();

}

for(count=0; count < number\_of\_emp; count++){

emp[count].display\_emp\_details(count+1);

}

cout<<"\nPress any key to close!!!";

getch();

}

**Write a C++ Program to display Names, Roll No., and grades of 3 students who have appeared in the examination. Declare the class of name, Roll No. and grade. Create an array of class objects. Read and display the contents of the array.**

#include <iostream.h>

class Student\_Info

{

int roll\_number;

char student\_name[50], grade[2];

public:

void read\_data(int count)

{

cout<<"\n\n--------- Enter student "<<count+1<<" information ---------\n";

cout<<"Name of the Student (Max. 50 characters only): ";

cin>>student\_name;

cout<<"Roll Number: ";

cin>>roll\_number;

cout<<"Grade (O, A+, A, B+, B, C, D, F): ";

cin>>grade;

cout<<"\nStudent information with roll number "<<roll\_number<<" has saved!";

}

void display\_data(int count)

{

cout<<"\n\n\*\*\*\*\*\*\*\* Student "<<count+1<<" Information \*\*\*\*\*\*\*\*";

cout<<"\nName of the Student: "<<student\_name;

cout<<"\nRoll Number: "<<roll\_number;

cout<<"\nGrade Secured: "<<grade;

cout<<"\n---------------------------------------\n";

}

};

void main(){

Student\_Info stud[3];

int i;

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

stud[i].read\_data(i);

cout<<"\n\n+++++++++++++++++++++++++++++++++++++++++++++++\n";

cout<<"The information of 3 students has been saved.";

cout<<"\n+++++++++++++++++++++++++++++++++++++++++++++++\n";

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

stud[i].display\_data(i);

;

}

**How to pass an object within the class member function as an argument in C++ programming**

#include <iostream.H>

**class** **Demo**

{

**private:**

**int** a;

**public:**

**void** **set**(**int** x)

{

a = x;

}

**void** **sum**(Demo ob1, Demo ob2)

{

a = ob1.a + ob2.a;

}

**void** **print**()

{

cout << "Value of A : " << a << endl;

}

};

**void**  **main**()

{

//object declarations

Demo d1;

Demo d2;

Demo d3;

//assigning values to the data member of objects

d1.set(**10**);

d2.set(**20**);

//passing object d1 and d2

d3.sum(d1, d2);

//printing the values

d1.print();

d2.print();

d3.print();

}