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Reg# BSE203003

Subject: OOP LAB

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Practice Task 1:

```
#include<iostream>
#include<string>
#include<fstream>
using namespace std;
class record {
public:
    string name;
    string reg;
    string age;

};

int main()
{
    record arr[5];
    int choice,option;
    string sname,sreg,sage;
    fstream file("student.txt", ios::in);

    for (int i = 0; i < 5; i++) {
        cout << "\nEnter Name";
        cin >> arr[i].name;
        file << arr[i].name << endl;
        cout << "\nEnter reg";
        cin >> arr[i].reg;
        file << arr[i].reg << endl;
        cout << "\nEnter age";
        cin >> arr[i].age;
        file << arr[i].age << endl;
    }

    cout << "\nPress 1 to search by name";
    cout << "\nPress 2 to search by reg";
    cout << "\nPress 3 to search by age";
    cin >> option;
    if (option == 1)
    {
        cout << "Enter name to search";
        cin >> sname;
        for (int i = 0; i < 5; i++)
        {
            if (sname == arr[i].name)
            {
                cout << "Registration number =" << arr[i].reg;
                cout << "\n Age:" << arr[i].age;
            }
        }
    }
    else if (option == 2)
    {
        cout << "Enter reg to search";
        cin >> sreg;
        for (int i = 0; i < 5; i++)
    }
```

```

    {
        if (sreg == arr[i].reg)
        {
            cout << "\nName =" << arr[i].name;
            cout << "\n Age:" << arr[i].age;
        }
        else
        {
            cout << "\nInvalid Input";
        }
    }
} else if (option == 3)
{
    cout << "Enter age to search";
    cin >> sage;
    for (int i = 0; i < 5; i++)
    {
        if (sage == arr[i].age)
        {
            cout << "\nName =" << arr[i].name;
            cout << "\n Registration Number:" << arr[i].reg;
        }
        else
        {
            cout << "\nInvalid Input";
        }
    }
}
}

```

The screenshot shows a Microsoft Visual Studio interface with a console application running. The console window displays the following interaction:

```

Project1 - Microsoft Visual Studio
File Edit View Project Build Debug Team Tools Test Analyze Window Help
Start Page Microsoft Visual Studio Debug x64 Local Windows Debugger ...
Project1
1 Enter age20
2 Enter Nameahmed
3 Enter reg94
4 Enter age21
5 Enter Namehani
6 Enter reg95
7 Enter reg96
8 Enter age22
9 Press 1 to search by name
10 Press 2 to search by reg
11 Press 3 to search by age1
12 Enter name to search...<ahmed>
13 Registration number <ahmed>
14 Age<ahmed>
15 Invalid Input
16 Invalid Input
17 Invalid Input
18 (C:\Users\zahal\source\repos\Project1\x64\Debug\Project1.exe (process 9148) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
Press any key to close this window . . .

```

The code in the editor pane shows a loop for searching by age:

```

for (int i = 0; i < 5; i++) {
    cout << "\nEnter Name";
    cin >> arr[i].name;
    file << arr[i].name << endl;
    cout << "\nEnter reg";
    cin >> arr[i].reg;
}

```

Practice Task 2:

```

#include <iostream>
#include <fstream>
#include <string>
using namespace std;
class employee
{

```

```

public:
    string emp_name;
    string emp_age;
    int emp_salary;
};

int main()
{
    employee e[5];
    int choice;
    string ename;
    string eage;
    int esalary;
    int count=0;
    ofstream file;
    file.open("HomeTask2", ios::app);
    cout << "\nEnter Information of 5 employees.";
    for (int i = 0; i < 5; i++)
    {
        cout << "\nEnter name:";
        cin >> e[i].emp_name;
        file << e[i].emp_name << endl;
        cout << "\nEnter age:";
        cin >> e[i].emp_age;
        file << e[i].emp_age << endl;
        cout << "\nEnter salary:";
        cin >> e[i].emp_salary;
        file << e[i].emp_salary << endl;
    }
    cout << "\nReading data from file(This work is done inside the file).";
    file.open("HomeTask2", ios::in);
    cout << "\nFrom which method you want to search";
    cout << "\n1.By name\n2.By age\n3.By salary";
    cout << "\nEnter your choice:";
    cin >> choice;
    if (choice == 1)
    {
        cout << "\nEnter name to search:";
        cin >> ename;
        for (int i = 0; i < 5; i++)
        {
            if (ename == e[i].emp_name)
            {
                cout << "\nAge:" << e[i].emp_age;
                cout << "\nSalary:" << e[i].emp_salary;
            }
        }
    }
    else if (choice == 2)
    {
        cout << "\nEnter age to search:";
        cin >> eage;
        for (int i = 0; i < 5; i++)
        {
            if (eage == e[i].emp_age)
            {
                cout << "\nName:" << e[i].emp_name;
                cout << "\nSalary:" << e[i].emp_salary;
            }
        }
    }
    else if (choice == 3)
    {

```

```

cout << "\nEnter salary to search:";
cin >> esalary;
for (int i = 0; i < 5; i++)
{
    if (esalary == e[i].emp_salary)
    {
        cout << "\nName:" << e[i].emp_name;
        cout << "\nAge:" << e[i].emp_age;
    }
}
for (int i = 0; i < 5; i++)
{
    if (e[i].emp_salary > 50000)
    {
        count++;
    }
}
cout << "\nNumber of employees having salary greater than 50000:" << count;
}

```

