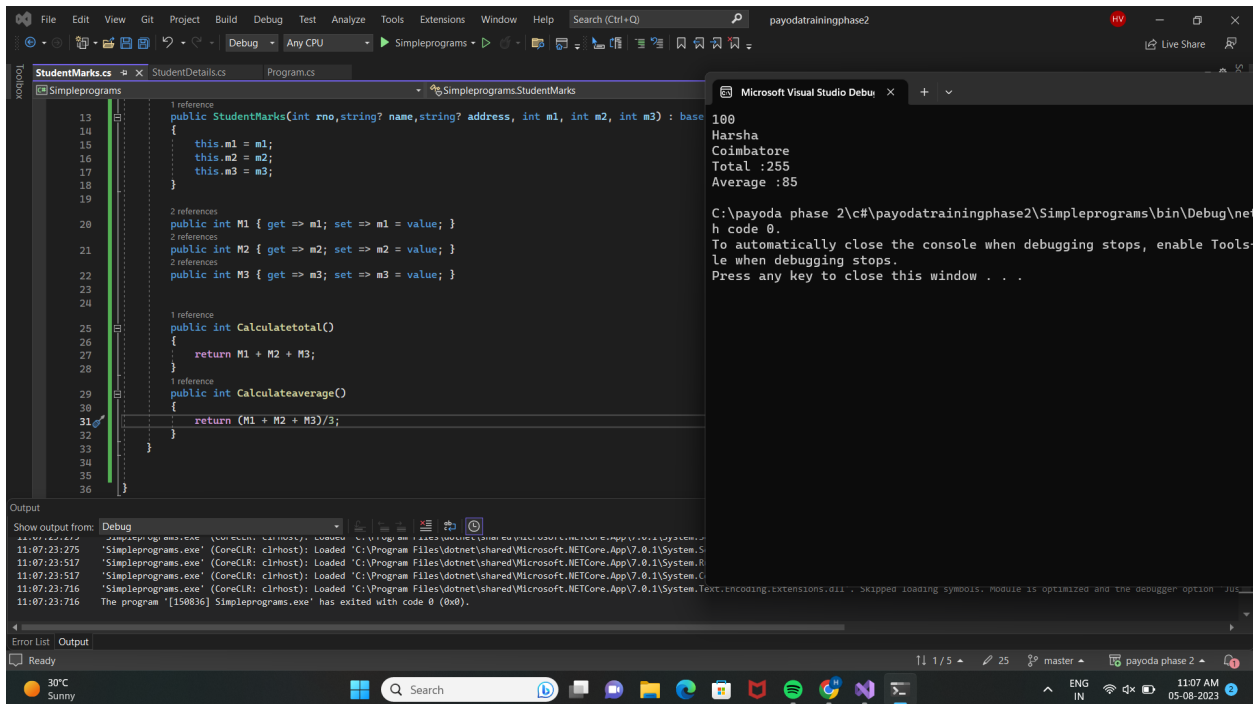


# Payoda-Phase2 - Day06

## c#

- In c# We have created a program for **Inheritance**.
- In that we have created a program for college.
- In this we have created multiple classes named **College,staffdetails,Teachingstaff,NonTeachingstaff,Studentmarks and studentGrade**.
- In c# We have created a program for **finding average marks** of students.



The screenshot shows the Visual Studio IDE with a C# project named 'Simpleprograms'. The code in 'StudentMarks.cs' defines a class 'StudentMarks' with three integer properties (m1, m2, m3) and two methods: 'Calculatetotal()' and 'Calculateaverage()'. The 'Calculatetotal()' method returns the sum of m1, m2, and m3, while 'Calculateaverage()' returns the average of these three values. The code is as follows:

```
13 public StudentMarks(int rno, string? name, string? address, int m1, int m2, int m3) : base(rno, name, address)
14 {
15     this.m1 = m1;
16     this.m2 = m2;
17     this.m3 = m3;
18 }
19
20 public int M1 { get => m1; set => m1 = value; }
21 public int M2 { get => m2; set => m2 = value; }
22 public int M3 { get => m3; set => m3 = value; }
23
24
25 public int Calculatetotal()
26 {
27     return M1 + M2 + M3;
28 }
29
30 public int Calculateaverage()
31 {
32     return (M1 + M2 + M3)/3;
33 }
34
35
36 }
```

The output window shows the results of the program execution:

```
100
Harsha
Coimbatore
Total :255
Average :85
```

The console window shows the following output:

```
C:\payoda phase 2\c#\payodatrainningphase2\Simpleprograms\bin\Debug\net6.0\Simpleprograms.exe
h code 0.
To automatically close the console when debugging stops, enable Tools->Options->Debug->Automatically close the console when debugging stops.
Press any key to close this window . . .
```

- In c# We have created a program for **finding average marks with grade** of students

```

164 // Console.WriteLine("Enter the title of the book");
165 // string? title = Console.ReadLine();
166 // library.ReturnBook(title);
167 // }
168 // else if (option == 1)
169 // {
170 //     library.DisplayBookDetails();
171 // }
172 // else if (option == 4)
173 // {
174 //     break;
175 // }
176 // }
177 // }
178 // }
179 // Staticdemo.Calc();
180 // Console.WriteLine("Amount to be paid: $" + Staticdemo.Amount);
181 // }
182 // }
183 // }
184 StudentGrade studentMarks = new StudentGrade(100, "Harsha",
185 // }
186 Console.WriteLine(studentMarks.Rno);
187 Console.WriteLine(studentMarks.Name);
188 Console.WriteLine(studentMarks.Address);
189 Console.WriteLine("Total : " + studentMarks.CalculateTotal());
190 Console.WriteLine("Average : " + studentMarks.CalculateAverage());
191 Console.WriteLine("Grade : " + studentMarks.CalculateGrade());

```

Output

```

11:25:06:357 'Simpleprograms.exe' (CoreCLR: clrhost): Loaded 'C:\Program Files\dotnet\
11:25:06:357 'Simpleprograms.exe' (CoreCLR: clrhost): Loaded 'C:\Program Files\dotnet\
11:25:06:624 'Simpleprograms.exe' (CoreCLR: clrhost): Loaded 'C:\Program Files\dotnet\
11:25:06:624 'Simpleprograms.exe' (CoreCLR: clrhost): Loaded 'C:\Program Files\dotnet\
11:25:06:624 'Simpleprograms.exe' (CoreCLR: clrhost): Loaded 'C:\Program Files\dotnet\
11:25:06:624 'Simpleprograms.exe' (CoreCLR: clrhost): Loaded 'C:\Program Files\dotnet\
11:25:06:624 The program '[150412] Simpleprograms.exe' has exited with code 0 (0x0).

```

- In c# We have created a program for **finding the salary** of staff.

```

187 Console.WriteLine("Total : " + studentMarks.CalculateTotal());
188 Console.WriteLine("Average : " + studentMarks.CalculateAverage());
189 Console.WriteLine("Grade : " + studentMarks.CalculateGrade());
190 //-----
191
192 //-----
193
194 TeachingStaff teachingStaff = new(101, "Harsha", "SDFG", "CSE", 10000, 40, 25, 10, 5);
195
196 NonTeachingStaff nonTeachingStaff = new(102, "Harish", "SPD", 8000, 30, 15, 5, 3);
197
198 Console.WriteLine("Teaching Staff Salary :");
199 Console.WriteLine(teachingStaff.Name);
200 Console.WriteLine(teachingStaff.Dept);
201 Console.WriteLine(teachingStaff.Basic salary);
202 Console.WriteLine(teachingStaff.CalculateSalary());
203
204 Console.WriteLine("NonTeaching Staff Salary :");
205 Console.WriteLine(nonTeachingStaff.Name);
206 Console.WriteLine(nonTeachingStaff.Basic salary);
207 Console.WriteLine(nonTeachingStaff.CalculateSalary());
208
209
210
211

```

Teaching Staff Salary :  
Harsha  
CSE  
10000  
17000  
NonTeaching Staff Salary :  
Harsha  
10000  
11760

C:\payoda phase 2\c#\payodatrainphase2\Simpleprograms\bin\Debug\net7.0\Simpleprograms.exe  
h code 0.  
To automatically close the console when debugging stops, enable Tools->Options->Debug->Automatically close the console when debugging stops.  
Press any key to close this window . . .

Output  
Show output from: Debug  
13:09:01:630 'Simpleprograms.exe' (CoreCLR: clrhst): Loaded 'C:\Program Files\dotnet\shared\Microsoft.NETCore.App\7.0.1\System.Collections.Concurrent.dll'. Skipped loading symbols. Module is optimized and the debugger option 'Just my code' is enabled.  
13:09:01:630 'Simpleprograms.exe' (CoreCLR: clrhst): Loaded 'C:\Program Files\dotnet\shared\Microsoft.NETCore.App\7.0.1\System.Collections.Concurrent.dll'. Skipped loading symbols. Module is optimized and the debugger option 'Just my code' is enabled.  
13:09:01:630 'Simpleprograms.exe' (CoreCLR: clrhst): Loaded 'C:\Program Files\dotnet\shared\Microsoft.NETCore.App\7.0.1\System.Collections.Concurrent.dll'. Skipped loading symbols. Module is optimized and the debugger option 'Just my code' is enabled.  
13:09:03:071 'Simpleprograms.exe' (CoreCLR: clrhst): Loaded 'C:\Program Files\dotnet\shared\Microsoft.NETCore.App\7.0.1\System.Collections.Concurrent.dll'. Skipped loading symbols. Module is optimized and the debugger option 'Just my code' is enabled.  
13:09:03:071 'Simpleprograms.exe' (CoreCLR: clrhst): Loaded 'C:\Program Files\dotnet\shared\Microsoft.NETCore.App\7.0.1\System.Collections.Concurrent.dll'. Skipped loading symbols. Module is optimized and the debugger option 'Just my code' is enabled.  
13:09:03:071 The program '[143848] Simpleprograms.exe' has exited with code 0 (0x0).

- In c# We have created a program for **displaying the details in the college.**

```

172 // break;
173 // }
174 // }
175 //-----
176
177 //Staticdemo.Calc();
178 //Console.WriteLine("Amount to be paid: $" + Staticdemo.Amt);
179 //-----
180
181 StudentGrade studentMarks = new StudentGrade("Payoda College", "Tidelpark", 100, "Arur", "C");
182
183 Console.WriteLine("Student Details :");
184
185 Console.WriteLine(studentMarks.Rno);
186 Console.WriteLine(studentMarks.Name);
187 Console.WriteLine(studentMarks.Address);
188 Console.WriteLine(studentMarks.Collegename);
189 Console.WriteLine(studentMarks.Collegeaddress);
190 Console.WriteLine("Total : " + studentMarks.CalculateTotal());
191 Console.WriteLine("Average : " + studentMarks.CalculateAverage());
192 Console.WriteLine("Grade : " + studentMarks.CalculateGrade());
193
194 //-----
195
196 TeachingStaff teachingStaff = new("Payoda College", "Tidelpark", 101, "Harsha", "SDFG", "C");
197
198 NonTeachingStaff nonTeachingStaff = new("AppviewX College", "Tidelpark", 102, "Harish", "SPD", 8000, 30, 15, 5, 3);
199

```

Student Details :  
100  
Arur  
Coimbatore  
Payoda College  
Tidelpark  
Total :255  
Average :85  
Grade :B  
Teaching Staff Salary :  
Harsha  
CSE  
10000  
Payoda College  
Tidelpark  
17000  
NonTeaching Staff Salary :  
Harish  
8000  
AppviewX College  
Tidelpark  
11760

C:\payoda phase 2\c#\payodatrainphase2\Simpleprograms\bin\Debug\net7.0\Simpleprograms.exe  
h code 0.  
To automatically close the console when debugging stops, enable Tools->Options->Debug->Automatically close the console when debugging stops.  
Press any key to close this window . . .

Output  
Show output from: Debug  
13:29:02:881 'Simpleprograms.exe' (CoreCLR: clrhst): Loaded 'C:\Program Files\dotnet\shared\Microsoft.NETCore.App\7.0.1\System.Collections.Concurrent.dll'. Skipped loading symbols. Module is optimized and the debugger option 'Just my code' is enabled.  
13:29:02:881 'Simpleprograms.exe' (CoreCLR: clrhst): Loaded 'C:\Program Files\dotnet\shared\Microsoft.NETCore.App\7.0.1\System.Collections.Concurrent.dll'. Skipped loading symbols. Module is optimized and the debugger option 'Just my code' is enabled.  
13:29:02:881 'Simpleprograms.exe' (CoreCLR: clrhst): Loaded 'C:\Program Files\dotnet\shared\Microsoft.NETCore.App\7.0.1\System.Collections.Concurrent.dll'. Skipped loading symbols. Module is optimized and the debugger option 'Just my code' is enabled.  
13:29:02:881 'Simpleprograms.exe' (CoreCLR: clrhst): Loaded 'C:\Program Files\dotnet\shared\Microsoft.NETCore.App\7.0.1\System.Collections.Concurrent.dll'. Skipped loading symbols. Module is optimized and the debugger option 'Just my code' is enabled.  
13:29:03:124 'Simpleprograms.exe' (CoreCLR: clrhst): Loaded 'C:\Program Files\dotnet\shared\Microsoft.NETCore.App\7.0.1\System.Collections.Concurrent.dll'. Skipped loading symbols. Module is optimized and the debugger option 'Just my code' is enabled.  
13:29:03:124 'Simpleprograms.exe' (CoreCLR: clrhst): Loaded 'C:\Program Files\dotnet\shared\Microsoft.NETCore.App\7.0.1\System.Collections.Concurrent.dll'. Skipped loading symbols. Module is optimized and the debugger option 'Just my code' is enabled.  
13:29:03:264 The program '[148888] Simpleprograms.exe' has exited with code 0 (0x0).