

**Day2: Work**

```
Exercise1();
Exercise2();
Exercise3();
Exercise4();
Exercise5();
Exercise6();
Exercise7();
Exercise8();
Exercise9();
Exercise10();

static void Exercise1()
{
    int TotalDays=100;
    int ClassesAttended=88;
    double AttendancePercentage=(ClassesAttended/(double)TotalDays)*100;
    Console.WriteLine($"[Ex1] Attendance Percentage: {AttendancePercentage}%");
}

static void Exercise2()
{
    int subject1 = 85, subject2 = 90, subject3 = 78;
    double average = (subject1 + subject2 + subject3) / 3.0;
    Console.WriteLine($"[Ex2] Average (2 dp): {average:F2}");

    int scholarshipScore = (int)Math.Round(average);
    Console.WriteLine($"[Ex2] Scholarship Score (int): {scholarshipScore}");
}
```

```
static void Exercise3()
{
    decimal finePerDay = 2.50m;
    int daysOverdue = 4;

    decimal totalFine = finePerDay * daysOverdue;
    double fineForAnalytics = (double)totalFine;

    Console.WriteLine($"[Ex3] Total Fine (decimal): {totalFine}");
    Console.WriteLine($"[Ex3] Fine for Analytics (double): {fineForAnalytics}");
}
```

```
static void Exercise4()
{
    decimal balance = 10000m;
    float interestRate = 5.5f;

    decimal rateAsDecimal = (decimal)interestRate;
    decimal monthlyInterest = balance * rateAsDecimal / 100 / 12;

    balance += monthlyInterest;

    Console.WriteLine($"[Ex4] Updated Balance: {balance}");
}
```

```
static void Exercise5()
{
    double cartTotal = 199.99;
    decimal taxRate = 0.18m;
    decimal discount = 20m;
```

```
decimal totalAsDecimal = (decimal)cartTotal;

decimal tax = totalAsDecimal * taxRate;

decimal finalAmount = totalAsDecimal + tax - discount;

Console.WriteLine($"[Ex5] Final Payable Amount: {finalAmount}");
}
```

```
static void Exercise6()
{
    short sensorReading = 300;
    double celsius = sensorReading / 10.0;

    int displayTemp = (int)Math.Round(celsius);

    Console.WriteLine($"[Ex6] Temperature: {displayTemp}°C");
}
```

```
static void Exercise7()
{
    double finalScore = 82.6;

    byte grade;

    if (finalScore >= 85) grade = 1;
    else if (finalScore >= 70) grade = 2;
    else if (finalScore >= 50) grade = 3;
    else grade = 4;

    Console.WriteLine($"[Ex7] Grade Code: {grade}");
}
```

```
}
```

```
static void Exercise8()
```

```
{
```

```
    long bytesUsed = 5_368_709_120;
```

```
    double mb = bytesUsed / 1024.0 / 1024.0;
```

```
    double gb = bytesUsed / 1024.0 / 1024.0 / 1024.0;
```

```
    int roundedGb = (int)Math.Round(gb);
```

```
    Console.WriteLine($"[Ex8] Usage: {mb:F2} MB | {gb:F2} GB | Rounded: {roundedGb} GB");
```

```
}
```

```
static void Exercise9()
```

```
{
```

```
    int itemCount = 500;
```

```
    ushort maxCapacity = 450;
```

```
    bool isOverCapacity = itemCount > maxCapacity;
```

```
    Console.WriteLine($"[Ex9] Over Capacity: {isOverCapacity}");
```

```
}
```

```
static void Exercise10()
```

```
{
```

```
    int basicSalary = 30000;
```

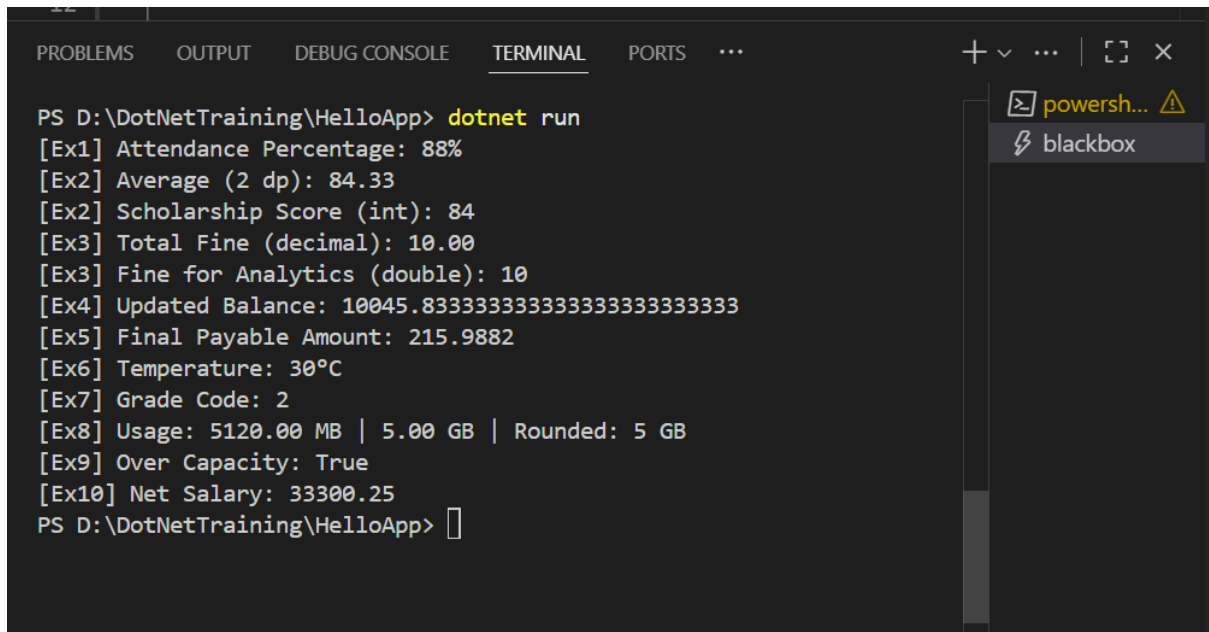
```
    double allowances = 5500.75;
```

```
    double deductions = 2200.50;
```

```
    decimal netSalary = basicSalary + (decimal)allowances - (decimal)deductions;
```

```
Console.WriteLine($"[Ex10] Net Salary: {netSalary}");  
}
```

## Output:



The screenshot shows a Visual Studio terminal window with the 'TERMINAL' tab selected. The terminal displays the output of a .NET application run from the directory 'D:\DotNetTraining\HelloApp'. The output consists of ten lines, each starting with a label in brackets followed by a colon and a space, then the value. The values are: 88%, 84.33, 84, 10.00, 10, 10045.8333333333333333333333333333, 215.9882, 30°C, 2, and 5120.00 MB | 5.00 GB | Rounded: 5 GB. The last line shows the net salary as 33300.25. The terminal prompt is 'PS D:\DotNetTraining\HelloApp>'. On the right side of the terminal window, there are two tabs: 'powersh...' and 'blackbox'.

```
PS D:\DotNetTraining\HelloApp> dotnet run  
[Ex1] Attendance Percentage: 88%  
[Ex2] Average (2 dp): 84.33  
[Ex2] Scholarship Score (int): 84  
[Ex3] Total Fine (decimal): 10.00  
[Ex3] Fine for Analytics (double): 10  
[Ex4] Updated Balance: 10045.8333333333333333333333333333  
[Ex5] Final Payable Amount: 215.9882  
[Ex6] Temperature: 30°C  
[Ex7] Grade Code: 2  
[Ex8] Usage: 5120.00 MB | 5.00 GB | Rounded: 5 GB  
[Ex9] Over Capacity: True  
[Ex10] Net Salary: 33300.25  
PS D:\DotNetTraining\HelloApp>
```