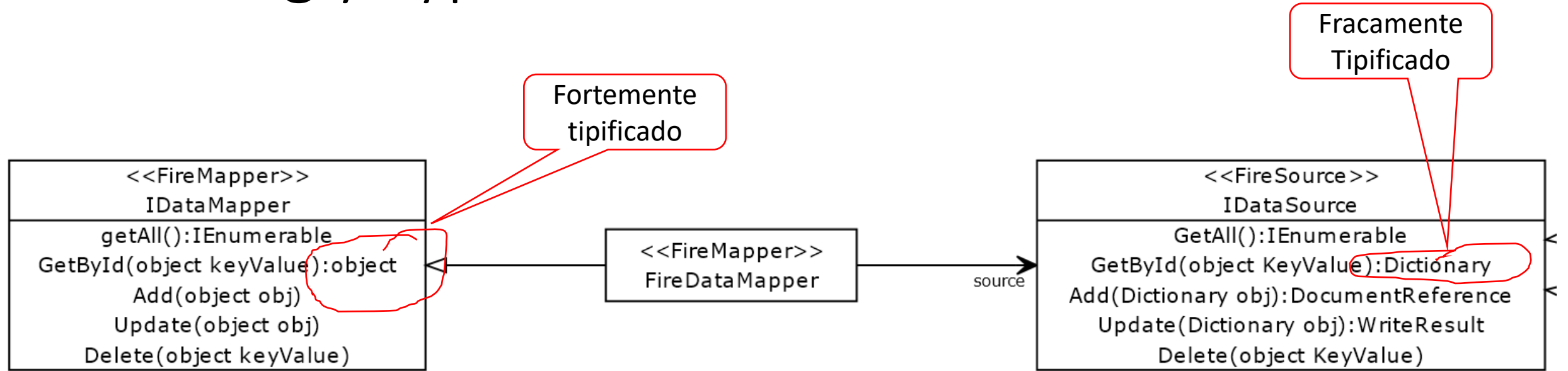


FireMapper

Insights

- **TODOS** os alunos têm que ter contribuição no repositório do grupo no Github.
- EXCEPCIONALMENTE até poderão fazer o mesmo trabalho em triplicado.
- Contribuição do desempenho contínuo em TODAS as aulas de laboratório:
 - Código desenvolvido
 - Perguntas
 - Dúvidas
 - ...

Strongly Typed



O que é uma propriedade?

Erro de Compilação
'Student' does not contain a definition for 'Xpto'

```
Student actual = (Student) studentsMapper.GetById(st.Number);  
... = actual.Xpto
```

Erro de Execução

KeyNotFoundException : The given key 'Xpto' was not present in the dictionary.

```
Dictionary<string, object> st = studentsDb.GetById("44999");  
... = st["Xpto"]; // <=> st.GetValue("Xpto")
```

Records

```
public record Student(  
    string Number,  
    string Name,  
    string Classroom)  
{}
```

```
FireSource.Test.Student:<Classroom>k_BackingField : private...  
Find Find Next  
.field private initonly string '<Classroom>k_BackingField'  
custom instance void [System.Runtime]System.Runtime.Compiler...
```

```
FireSource.Test.Student::get_Classroom : string()  
Find Find Next  
.method public hidebysig specialname instance string  
get_Classroom() cil managed  
{  
    .custom instance void [System.Runtime]System.Runtime.CompilerServices.C...  
    // Code size 7 (0x7)  
    .maxstack 8  
    IL_0000: ldarg.0  
    IL_0001: ldfld string FireSource.Test.Student::'<Classroom>k_BackingF...  
    IL_0006: ret  
} // end of method Student::get_Classroom
```

.....

```
using System;  
  
public class Student  
{  
    private String name;  
    private String number;  
    private String classroom;  
  
    public Student(String n, String nr, String c)  
    {  
        this.name = n;  
        this.number = nr;  
        this.classroom = c;  
    }  
    // public String get_Name { return name; } // ...get_Name();  
  
    public String Name { get { return name; } } // ...Name;  
    public String Number { get { return number; } }  
    public String Classroom { get { return classroom; } }  
}
```

Auto-implemented properties

```
using System;

public class Student
{
    public Student(String n, String nr, String c)
    {
        this.Name = n;
        this.Number = nr;
        this.Classroom = c;
    }
    // public String get_Name { return name; } // ...get_Name();

    public String Name { get; set; } // ...Name;
    public String Number { get; set; }
    public String Classroom { get; set; }
}
```

C# 1 > C#4 > C#9

```
using System;

public class Student
{
    private String name;
    private String number;
    private String classroom;

    public Student(String n, S
    {
        this.name = n;
        this.number = nr;
        this.classroom = c;
    }
    // public String get_Name

    public String Name { get { return name; } } // ...Name;
    public String Number { get { return number; } }
    public String Classroom { get { return classroom; } }
}
```

```
using System;

public class Student
{
    public Student(String n, String nr, S
    {
        this.Name = n;
        this.Number = nr;
        this.Classroom = c;
    }
    // public String get_Name { return name; } // ...get_Name();

    public String Name { get; set; } // ...Name;
    public String Number { get; set; }
    public String Classroom { get; set; }
}
```

```
public record Student(
    string Number,
    string Name,
    string Classroom)
{ }
```